



**BIRMINGHAM CITY**  
University

Birmingham City Business School

**Determinants of Distribution Firms’  
E-Marketing Adoption and the Impact on Marketing  
Performance: An Empirical Study of E-Marketing  
Adoption and Implementation by Iranian  
Distribution Firms**

By

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## Declaration

This thesis is submitted to fulfill the completion requirement for the degree of Doctoral and Philosophy at the Birmingham City Business School in Birmingham City University, Birmingham, United Kingdom. I hereby declare that the entire thesis is the original of my work except for quotations and citations that I have appropriately acknowledged. I also at this moment declare that this work either full or half of it has never been submitted to any universities or institutions for other purpose. I am responsible for any errors and omissions present in this thesis.

Signed

Sepideh Zahiri

August 2021

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## Dedication

*In memory of my father*

This thesis is dedicated to

The soul of my father

Whom I promised to dedicate this dissertation before he left this world

To my beloved mother and sister with love and eternal appreciation

To my lovely grandmother

Thanks for your love and patience

If we knew what it was we were doing,  
It would not be called research, would it?

Albert Einstein

## List of Publications

The following papers are developed based on this thesis that have been presented in different conferences and published in different journal and conference publications:

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## Abstract

The Information Technology (IT) is a significant network for the market in a wide variety of industries and has become an important impact on the global economy, having penetrated on every aspect of individuals and organisations (Manyika *et al.*,2015). The employment of Information Technology and Information Systems by organisations, has raised the firms' consciousness of digitalisation and reformed firms' view about marketing strategies' process, restructuring, and collecting information (Erum, Rafique, and Ali, 2017; Lee *et al.*, 2011; and Margherita and Petti, 2010). E-Marketing, E-Commerce and other technological innovations have implemented better than traditional business methods, reduced and eliminated costs, and enhanced opportunities for organisations and businesses to develop their marketing activities into the online environment (Baden-Fuller and Haefliger, 2013; Devitt *et al.*, 2009; Sheffield,2019; and Choshin and Ghaffari, 2017). The distribution channel is one of the most important sectors in the economy of countries, that shortens the distance between manufactures and customers, resulting to greater productivity and creates a competitive advantage that leads to more profit for both parties in long-term (Mulky, 2013; Saldanha, 2015).

In conjunction with this phenomenon, prior studies recommend that there is an increasing number of distribution firms conducting their marketing activities through the adoption of technology innovations in both developed and developing countries (e.g., Munyasi, 2015; Lin and He, 2014; and Okwara and Emmanuel Nlemchukwu, 2019; and Anđelković, Barac, and Radosavljević, 2017). However, emerging countries are weak and slow in developing, adopting, and implementing technological innovations and are lagging in embracing their business and marketing strategies with such tools (Iddris and Ibrahim, 2017; El-Gohary and El-Gohary,2016; and Mutlu, Sürer, 2015). UNCTAD (2021), and OECD (2021) have recorded a lower share of GDP value by firms in emerging countries vis-à-vis developed countries. This is due to the high number of issues such as degree of IT literacy, low-level of incomes, cultural resistance inside and outside of the organisations, the lack of development of business strategies, etc. (Molla and Licker, 2005; Mutlu, Sürer, 2015; and Zahiri, and El-Gohary, and Hussain, 2018).

This study investigates the different factors influencing distribution firms' decision to involve in E-Marketing adoption with their marketing activities in Middle Eastern countries (Such as Iran). This study also investigates the relationship between the distribution firms E-Marketing

adoption and its marketing performance since the relationship remains ambiguous (Zahiri, El-Gohary, and Hussain, 2018). Moreover, the research deepens the understanding of the compound interrelationship between E-Marketing adoption determinants (that impacts managers/owners and top managers' decision to involve in technology innovation adoption in their marketing activities) and how these determinant factors (both internal and external) have an impact upon distribution firms' marketing performance.

This thesis underlines the following research questions: i) what are the different factors influencing the E-Marketing adoption of Iranian distribution firms? ii) How the integration of both internal and external factors affecting E-Marketing adoption by Iranian distribution firms? iii) What are the different tools and levels of implementation of Electronic Marketing by distribution firms in Iran? iv) What are the impacts of E-Marketing adoption on Iranian distribution firms' financial and non-financial performance?

The research methodology in this study has designed according to the post-positivist approach to answer the research questions and to achieve the study aims and objectives. This study deployed a triangulation approach, initiated from an in-depth review of the extant literature by systematically commencing from prior studies with the field. Consequently, to purify the findings from the review of the extant literature, the researcher conducted semi-structured, face-to-face, and focus group interviews with 28 Iranian managers/owners and top managers who were involved in E-Marketing implementation and adoption for conducting the marketing activities of distribution firms. The sample and interview participants of managers were chosen purposefully from the association of the Iranian distribution industry website that publicly is accessible. The organisations included in the research had already adopted and implemented technological innovations and were not in the initial stages of adoption or non-adopters.

This study has developed the conceptual framework and hypotheses by relying on the findings from the exploratory interviews. The next stage involved examining the conceptual framework through an empirical study to confirm its validity in describing distribution firms' E-Marketing adoption in Iran. A combination of the online and traditional mail survey questionnaires was conducted to examine the study hypotheses empirically. Finally, the study analysed 231 data collected from survey questionnaires with several statistical methods containing Cronbach-Alpha test, simple linear and multiple regression one sample T-Test, and structural equation modeling (SEM).

This research found that determinants factors of E-Marketing adoption of Iranian distribution firms vary. All measures related to environmental, individual, organisational, and technological characteristics have a significant relationship to E-Marketing adoption by Iranian distribution firms. The study also found technological attributes, and external IT support mediate the relationship between organisational factors and E-Marketing adoption as well as technological attributes, the intensity of national e-readiness, and external IT support mediates the relationship between Individual factors and E-Marketing adoption by Iranian distribution firms. The findings indicate that Social Media Marketing and Search Engine Marketing are the most commonly used Electronic Marketing tools, and the majority of distribution firms in Iran are in level three of E-Marketing implementation. Finally, E-Marketing adoption is found positively significant in impacting current and future marketing performance (both financial and non-financial measures) of distribution firms in Iran.

This study will contribute to the practitioners, academics and policymakers. For academics and researchers, the contribution of this study is about understanding different factors that impact on E-Marketing adoption, that numerous factors are yet undiscovered, and not examined in Iran such as individual/managerial and organisational attributes (as discussed in chapter 4 and chapter 11). Moreover, this study contributes to achieving the limited number of studies in determining different influencing factors of Iranian distribution firms E-Marketing adoption by utilising more holistic approaches, including both qualitative and quantitative techniques. This study also contributes to academic by differentiating E-Marketing determinants across distribution industry as previous literature was mostly focusing on SMEs (by focusing on both manufactures and services in all sectors) and tourism and hospitality industry in Iran context. Moreover, the study expands the integrative models developed by Rabie (2013), Al-Somali (2011), and Rahayu (2015) by investigating the role of managerial/individual attributes with new variables adopted from MPCU and e-readiness elements adopted from PERM on E-Marketing adoption. Finally, the contribution regarding the theoretical foundation integrates six theories of technology adoption instead of using single or two theories.

For practitioners, this study provides a holistic guideline for CEO, marketers, IT experts, business managers/owners, and all other parties that deploy or are developing to use Electronic Marketing for conducting marketing activities or seek determinants that can increase the E-Marketing adoption process of their organisations. Moreover, distribution firms may use the outcomes as a guideline to strengthen their organisations and to be more competitive in their

industry markets. Policymakers, governmental agencies, software vendors, and business support agencies may also benefit from this research regarding accommodating support to firms (in general) and distribution firms (in particular) who inspire to diversify their business through technological innovation adoption and E-Marketing, which in turn, will help the government in enhancing Gross Domestic Product performance and provide more employability prospects for nations.

**Keywords:** Distribution Firms; Iran; Determinants; E-Marketing Adoption; Marketing Performance; Empirical Study

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## List of Abbreviations

|             |  |
|-------------|--|
| E-Marketing | = Electronic Marketing                                 |
| E-Commerce  | = Electronic Commerce                                  |
| E-Business  | = Electronic Business                                  |
| B2B         | = Business-to-Business                                 |
| B2C         | = Business-to-Consumer                                 |
| B2G         | = Business-to-Government                               |
| TAM         | = The Technology Acceptance Model                      |
| DOI         | = Diffusion of Innovation Theory                       |
| IT          | = institutional Theory                                 |
| TPB         | = Theory of Planned Behaviour                          |
| DTPB        | = The Decomposed Theory of Planned Behaviour           |
| TRA         | = Theory of Reasoned Action                            |
| SCT         | = Social Cognitive Theory                              |
| RBV         | = Resource Based View                                  |
| MPCU        | = Model of Personal Computer Utilisation               |
| PERM        | = Perceived E-Readiness Model                          |
| TOE         | = Technological-Organisational-Environmental Framework |
| MM          | = Motivational Model                                   |
| IT          | = Information Technology                               |
| IS          | = Information Systems                                  |
| SEM         | = Structural Equation Modeling                         |
| GFI         | = Goodness of Fit Index                                |
| CFI         | = Comparative Fit Index                                |
| SPSS        | = Statistical Package for Social Science               |
| VIF         | = Variance Inflation Factor                            |
| $\beta$     | = Unstandardied Coefficients                           |
| PEOU        | = Perceived ease of use                                |
| PU          | = Perceived usefulness                                 |
| IMF         | = International Monetary Fund                          |
| ISP's       | = Internet service providers                           |
| E-CRM       | = Electronic Customer Relationship Management          |
| SME         | = Small and Medium Enterprise                          |
| SMEs        | = Small and Medium Enterprises                         |
| e.g.        | = exempli gratia (for example)                         |
| GDP         | = Gross Domestic Product                               |

|         |   |
|---------|---|
| ibid    | = Ibidem (In the same source)                         |
| EU      | = European Union                                      |
| etc.    | = Et cetera (similar items are included)              |
| R&D     | = Research and Development                            |
| CEO     | = Chief Executive Officer                             |
| c.f.    | = Cited From  |
| ROA     | = Return on Asset                                     |
| ROS     | = Return on Sales                                     |
| ROE     | = Return on Equity                                    |
| f.      | = Functions   |
| KMO     | = Kaiser Meyer-Olkin (statistical analysis technique) |
| AMOS    | = Analysis of Moment Structure (statistical software) |
| ICT     | = Information Communication Technology                |
| CFA     | = Confirmatory Factor Analysis                        |
| ε       | = Standard Error of Estimates                         |
| N       | = Number of samples                                   |
| ANOVA   | = Analysis of Variance                                |
| P Value | = Observed Significant Level                          |
| OLS     | = Ordinary Least Square                               |
| AVE     | = Average Variance Extracted                          |
| CR      | = Composite Reliability                               |
| IFI     | = Incremental Fix Index                               |
| IRR     | = Iranian Rial Rates                                  |
| mn      | = Millions  |
| bn      | = Billions  |
| WWW     | = World Wide Web                                      |

# Chapter 1: Introduction

## 1.1 Introduction

As distribution channels are considered to be the economic engine and a route along with manufacturers to customers that lead to economic growth, they have attracted considerable attention from scholars in the last two decades (e.g. Lu and Julian; 2007; Nyalita, 2009; McCabe *et al.*, 201; Kovar, Burke, and Kovar; 2000; Bordonaba-Juste, Lucia-Palacios, and Polo-Redondo, 2012; Lin and He, 2014; Okwara and Emmanuel NIemchukwu, 2019; Munyasi, 2015, etc.). This interest comes from the idea that transformation, particularly through information technology, is significantly reliant on the potential of distribution channels. However, the recent changes in the Information System (IS), Internet, information technology (IT), marketing and communications has transformed the nature of business and marketing studies. There are many firms and organisations that deploy the Internet, and Information Technology tools to relate to business partners, suppliers, and customers. New methods of marketing have given a prospect to distribution channels to develop globally and nationally in a dynamic way.

This study discusses that the adoption of Electronic Marketing by distribution channels can transform the form and nature of its industry all globally and nationwide. The fast dissemination of the Internet, information technologies (IT), Information Systems (IS), the World Wide Web, marketing technologies, and computer sciences has made vigorous new e-channels for marketing, and the majority of firms nowadays, find it vital to have an online presence. Although the technology information drives many opportunities for businesses, there are issues related to the diminuendos of this interactive media. These issues are intensified by the fact that many prior studies (Rabie, 2013; Al-Somali, 2011; Rahayu, 2015; Hassen, Rahim, and Shah, 2019; Kumoro and Jawad, 2019; Awa, Ojiabo, and Orokor, 2017; Lertwongsatien and Wongpinunwatana, 2003; Idris, Edwards, And McDonald, 2017; Ramdani And Kawalek, 2009; Alamro and Tarawneh, 2011; Alrousan, 2014; and Awa, Ojiabo, and Emecheta, 2015, etc.) have focused on other technology innovation tools such as E-Business, Internet Banking, E-Payment, and E-Commerce, and the scholars that deployed Electronic Marketing have focused on various service and manufacture sectors as well as SMEs (In both industry sectors). However, there is a limited focus on the distribution industry as a main vessel of all businesses, between them and the customers (refer to appendix 1).

This study's overall purpose is to understand how the diminuos of Electronic Marketing have changed distribution firms' marketing performance and affected their marketing performance. After a review of the extant literature to find the research gaps and main issues in the field, this study will then develop a conceptual research framework. The study will next deploy a triangulation method wherein both quantitative and qualitative data will be gathered to answer the "what" and the "why" questions of the study. Within this approach survey questionnaire and semi-structured interviews, research approaches will be combined to conduct the study.

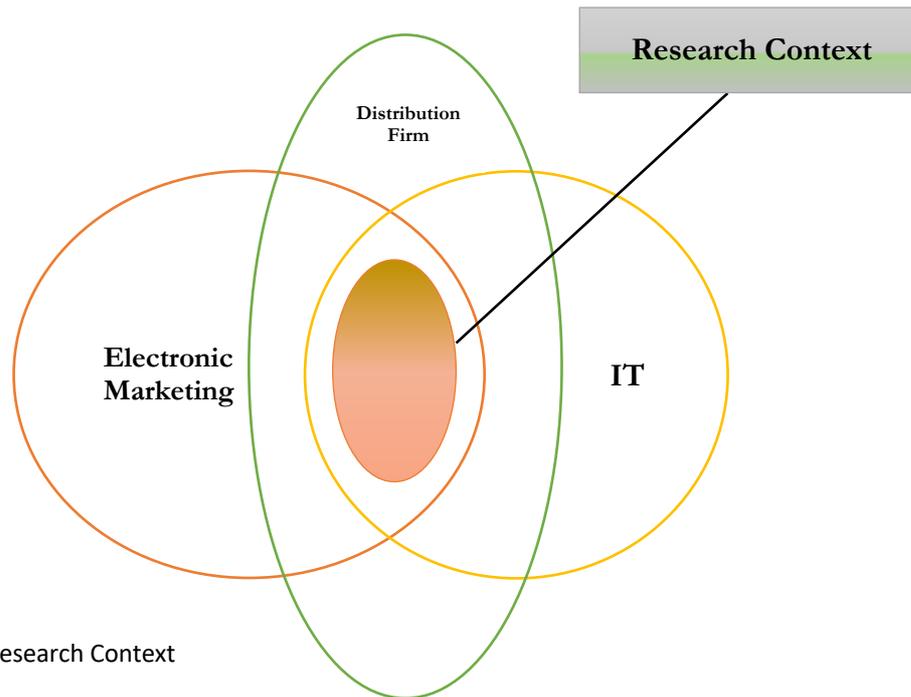
The chapter's overall aim is to create the foundation and context of the thesis. It initiates by giving an overview of the background and motivation of the study. It then presents the overview of Electronic Marketing (E-Marketing) and Distribution Industry that is the basis of the study context. Consequently, this chapter presents the focus of the study on E-Marketing adoption and the impact of the E-Marketing strategy on marketing performance of distribution firms in Iran. Moreover, this chapter demonstrates the objectives, aims of the study, the research questions for this thesis and presents an outline of the methodology deployed in the study, including the qualitative and quantitative stages. The next section demonstrates the methodological, academic, and practical contributions of this thesis, followed by a brief description of the thesis structure. Finally, the chapter ends with a summary of the discussion in the last section.

## **1.2 The Research Context (E-Marketing- Marketing Performance)**

The opportunities given by Electronic Marketing for distribution companies are significant as Information Technology and its related technological innovations are contributing a vigorous role in managing distribution firms marketing activities due to their unique characteristics both as a market and as mediator among the manufactures and customers. A web site or a web page can have the potential to directly reach a large number of markets in a fast and economical way. With relatively low investments almost any person can have access to the World Wide Web. Nowadays, millions of people are connected to the Internet to search for information and purchase goods. Consequently, the nature of business in all countries is changing not only fast but also dramatically and developing countries (such as Iran) are upgrading their infrastructure and harnessing the Internet. This phenomenon is very dynamic and is changing the shape of business communications, trade, and marketing practices. Electronic Marketing will provide

distribution firms with the opportunity of developing successful economic businesses in ways that have never been available to them before. It will put organisations in touch with previously unavailable global resources and opportunities so that they can communicate and conduct business with new and existing customers in an integrated and easy way. Adoption of electronic marketing contributes to the development of businesses in emerging countries that is driven by the perceived possibilities of the information technology in decreasing the costs (El-Gohary, 2009). Moreover, organisations adopt electronic marketing as a business strategy to make interactions by adjusting information for individual customers and suppliers in a way that meets their specific requirements (Iddris and Ibrahim, 2015).

On the other hand, there are problems related to the dynamics of technological innovations such as cultural issues, problems related to trust and security, technical issues, lack of governmental support, language barriers, costs etc. Furthermore, the changing nature of technological innovations lead distribution firms to not fully understand their potentials for their business activities as they are changing the traditional marketing techniques dramatically (Sheikh, Shahzad, and Ishaq, 2017; Eid and El-Gohary, 2013; and Ueasangkomsate, 2015). In other words, there is a crucial requirement to understand the effect of Electronic Marketing on both individuals and organisational behaviours and there is an urgent need to understand the impact of E-Marketing on customer and business market behaviours. Consequently, the majority of firms have started to develop their own E-Marketing strategies and tactics for the Web. In turn this will raise the competence and effectiveness of the usual standard marketing functions, so that distribution firms have the potential to add customer value and/or increase company profitability (Iddris and Ibrahim, 2015). Moreover, this research argues that the “E” before the word marketing shows a philosophy that must be followed by firms that want to keep their competitiveness, efficiency, and value. To this end, this research examines three domains that relate and combine the literatures and theories of information technology (IT), E-Marketing and distribution firms (see figure 1.1). This approach is likely to provide a sound platform to investigate the different factors affecting the adoption of E-Marketing by distribution firms as well as the impact of this adoption on the marketing performance of these firms.



**Figure 1.1:** The Research Context

As there is a noticeable shortage in the literature related to E-Marketing, the investigation is expanded to include the theories of new technology adoption as well as its influence and potential for E-Marketing adoption in distribution firm context. Six theories of new technology (DOI, PERM, TAM, TOE, RBV, and MPCU) will be used to identify the variables that might influence the adoption of Electronic Marketing by distribution firms alongside previous studies and theories within the field. Although these six models are well established in the field, they suffer from some drawbacks. They ignore some important factors both within and outside the organisation that may have an impact on new technology acceptance, diffusion, adoption as well as marketing performance (El-Gohary,2009; Shemi, 2012; and Rabie, 2013). Therefore, this research will expand the six models to gain a deeper understanding of E-Marketing practices by distribution firms in line with the findings of Ohunmah (2015), Shemi (2012), Rahayu (2015), Alrousan (2014), Muhammad *et al.* (2011), Hassen, Rahim, and Shah (2019), and Rabie (2013) and aims to strengthen the six models in an E-Marketing context for distribution firms. The research framework will then be constructed, the research hypotheses will be developed, and the research framework will be examined to test the research hypotheses depending on the chosen research methodology and appropriate statistics tools.

### **1.3 The Motivation and Rationale of Research**

Information Technology (IT) is a significant network for the market in a wide variety of industries and has become a main impact on the global economy, having penetrated on every

aspect of individuals and organisations (Manyika and Chui, 2015). It is predicted that Information Technology (IT) to contribute approximately 12 percent of the total world GDP in 2025 (Edquist, Goodridge, and Haskel, 2019). The improvements in Information Technology have enhanced opportunities for businesses to increase and develop their marketing activities. The employment of Information Technology (IT) and Information Systems (IS) by organisations such as private sectors and governments has raised the firms' consciousness of digitalisation and reformed firms' view about marketing strategies, process restructuring, and collecting information (Erum, Rafique, and Ali, 2017; Lee *et al.*, 2011; and Margherita and Petti, 2010).

The distribution industry is one of the most critical service sectors, which shortens the distance between manufactures and customers, resulting in greater productivity, and creates a competitive advantage that leads to more profit for both parties in the long term (Mulky, 2013; Saldanha *et al.*, 2015). Indicators of development and growth of distribution network in most countries are the expansion of the use of innovation tools, methods of maintenance, arrangement, transportation and finally distribution of products/ services, so that make the distribution channels to be considered as the main engine of economic growth (Munyasi, 2015; Zahiri, El-Gohary, and Hussain, 2018; and Radosavljević, Anđelković, and Barac 2017).

In European and American countries, the distribution network is highly developed, and all brands and manufacturers believe that with the help of the distribution companies, in addition to selling their products, they can also have relatively high profitability (Munyasi, 2015). In developed countries, a wide range of purchases and orders are made online, which has significantly eliminated the need for wholesale and retail (Radosavljević, Anđelković, and Barac 2017). In the Middle Eastern countries, 59 percent of distribution firms use technology innovation tools. Moreover, developments in IT and Internet infrastructure in the region, have led to an increase in using technology innovation tools (Munyasi, 2015; Lin and He, 2014; and Okwara and Emmanuel Nlemchukwu, 2019).

Such development is quintessentially important to any economy since distribution firms are inseparably related to economic development in both developed and developing countries given the considerable contribution they make to global GDP (Pangarkar, 2008; Segetlija, Mesarić, and Dujak, 2011; and Anđelković, Barac, and Radosavljević, 2017). However, (Al-Somali,2011, Rahayu,2015; El-Gohary,2016) reported that developing countries compared to many developed countries, still have a long path to go in terms of online marketing, and

traditional sales systems are still more prevalent in the region. This fact becomes more noticeable when UNCTAD (2019a); and OECD (2019b) have recorded a lower share of GDP value by firms in emerging countries vis-à-vis developed countries. Moreover, the extant literature on the theme of Electronic Marketing predominantly relates to developed and industrialised countries rather than developing and emerging nations (Kinyanjui, 2015; Mitra and Datta, 2014; Eiriz *et al.*, 2016; and Zahiri, El-Gohary, and Hussain, 2018). Information Technology has been considered as the main driver for firms' efficiency and economic growth. According to reports by OECD (2019b); and Stanley *et al.* (2018), although these impacts tend to be positive specifically at organisational level. However, the rapid development of digitalisation in the last decade does not appear to have transformed into robust efficiency growth. In other word, the development and implementation process has slowed (Crafts, 2018). This slowdown seems to be more visible in developing countries (UNCTAD, 2019 And APEC, 2018). Gordon (2016) stated that one of the reasons for such inconsistency is related to the impacts of IT on productivity, as the developing digital technology innovations are having less influence than the IT technologies that considered former technological revolutions. Moreover, OECD (2019b); and Remes *et al.* (2018) assert that the reason might be the time lags prior to the impacts of technology innovation approval kicks in.

According to various reports (e.g., Baden-Fuller and Haefliger, 2013; Sheffield,2019; and Choshin and Ghaffari, 2017), E-Marketing, E-Commerce, and other technological innovations have implemented better than traditional business methods, reduced and eliminated costs, and enhanced opportunities for organisations and businesses to develop their marketing activities into the online environment. However, emerging countries are weak and slow in developing, adopting, and implementing technological innovations and are lagging in embracing their business and marketing strategies with such tools (Iddris and Ibrahim, 2017; El-Gohary,2016; and Mutlu, Sürer, 2015). This is due to the high number of issues such as degree of IT literacy, low-level of income, cultural resistance within and outside of the organisations, the lack of development of business strategies, etc. (Molla and Licker, 2005; Choe, 1986; Malecki, 1997; Heeks, 2002; Mutlu, Sürer, 2015; Zahiri, and El-Gohary, and Hussain, 2018).

Thus, this study seeks to provide a better understanding of factors affecting distribution firms' E-Marketing adoption, particularly in Middle Eastern developing countries such as Iran. Moreover, the study attempts to understand the relationship between the E-Marketing strategy and distribution firms' current and future marketing performance (measured in both financial

and non-financial terms). Once confirmed, this study will form the foundation of concise and practical guidance that will assist distribution channels aspiring to use technological innovations as a part of their marketing activities. Governments, software and web vendors, and business support agencies may also benefit from this research in terms of helping to provide the most suitable IT support services for distribution firms to enhance their business development and marketing performance by undertaking an appropriate E-Marketing strategy. This study will, consequently, expand the understanding of the compound interrelationship between influencing factors that affects distribution firms' E-Marketing adoption and how the amalgamation of one or more internal and external variables affects upon distribution firms' marketing performance.

## **1.4 Research Background**

### **1.4.1 Distribution Industry**

In its widest sense, when it implies to the entire economic system, the distribution sector is the allocation of revenue and possessions in one society, and the term distribution refers to the allocation of products from suppliers to customers that include all activities in which, facilitate the transmission of physical or financial power from one lucrative subject to another (Segetlija, Mesarić, and Dujak, 2011; Kinyanjui, 2015; and Kotler and Armstrong, 2012). Globally, the distribution industry has great potential, particularly in developed countries, contributes to 30 percent of the world economy (Salvador De Souza, 2018; Okwara, and Emmanuel Nlemchukwu, 2019). Distribution firms contribute to a very significant impact on both social and economic steadiness in Iran, mainly by making employment opportunities and contributing to Iran's current GDP shares (Association of Iranian Distribution Industry, 2019). Iran's distribution industry produces eight percent of Iran's Gross Domestic Product (GDP) (The Association of Iranian Distribution Industry; 2019; Financial Tribune, 2017). The great number of distribution firms in Iran is not because, this industry is profitable but because manufacturers are intended to establish their own network system to distribute their goods in their constructive way (Parsoghab, 2017a). In 2017, The national distribution industry had an income of over 25 billion dollars (Dana Fard, 2019; Association of Iranian Distribution Industry, 2019). This turnover led to the generation of approximately 500-600 jobs in 2018, and there were organisations with around 7,000 employees (Association of Iranian Distribution Industry, 2019; Product Distribution Management System; 2019).

Technology innovation adoption in the distribution industry of Iran, with a small percentage difference, increased from 42 percent to 46 percent in 2018 (Saman, 2019; Nordeatrade, 2019; Association of Iranian Distribution Industry, 2019). This sustained interest shows that the continued slowness of technological innovation within the distribution industry, has nothing to do with awareness of its importance but more is related to how technical, logistical, and financial expectations meet the fully operational solutions as well as the complexity, multifaceted nature, and the challenges related to the ongoing changes of technology innovations (Nordeatrade, 2019; and Association of Iranian Distribution Industry, 2019). Iran's e-readiness in 2018 ranked 68<sup>th</sup>, and there was only a 6-point decline in comparison to 2017 which shows Iran's e-readiness has declined instead of increasing (InternetWorldStats,2019). According to (Donyaye Eghtesad,2018; Pars Oghab,2017; and DanaFard,2019), Iran is not in a good position in terms of the necessary infrastructure, although research shows that in the country, the movement towards more widespread and more appropriate use of the Internet has begun. According to the Association of Iranian Distribution Industry (2019), Iran is ahead of the less developed countries in this regard. Lack of culture of dealing with technological innovation, misconceptions, the negative attitude of merchants, and physical distribution units are some of the important obstacles of this decrease (Mahdavi and Haghdoost, 2007; Jafarnejad *et al.*, 2009; and Donyaye Eghtesad,2018). Hence, Iranian distribution firms need to integrate their marketing activities with technological innovation and develop appropriate business strategies to improve the marketing performance of the organisation.

The term distribution summarises a wide range of descriptions and measures, particularly, when integrates with information technology (Kotler and Armstrong, 2012; Chaffey *et al.*, 2015). A commonly used standard to define a distribution channel is a marketing channel and distribution is the process of flowing the goods/services to be accessible from manufactures to customers or other businesses who require (Dent, 2011; Kotler, Keller and Burton, 2009). In the word, the distribution channel is a group of dependent firms within the market that benefit, through their activities, and make products and/or any services accessible for the deployment or consumption of the end-users or other businesses (Kotler and Armstrong, 2012). According to Bennett (1988), distribution channels are highly interdependent and mostly compound.

Strategic decisions about distribution require to be taken in line with a firm's general strategic vision and mission (Avittathur, Shah, and Gupta, 2005; Coelho, Easingwood, 2008). At the tactical level, there are three comprehensive methods of distribution, i.e., mass, selective or

exclusive distribution (Goldman, Hino, 2005; Kotler and Armstrong, 2012). The amount and form of mediators rely on the strategic approach. Generally, the distribution channel's mission is to add value to customers. Therefore, distribution channels necessarily need to focus on the reach of the products to the targeted customers in the most cost-effectual and direct way (Munyasi, 2015; Ganesh and Ghadially, 2013). In terms of services, the term distribution is related to accessibility (McCabe, 2011; Nyalita, 2009). Commonly used criteria to define the distribution is a variety of actions and disciplines including comprehensive logistics, shipping, warehousing, storing, inventory, and channel management, and choosing the channel members (Segetlija, Mesaric, Dujak, 2011). When the technological innovation integrates with the marketing activities, the term would be defined as an electronic distribution that deploys the electronic media for distribution (Amara, 2012; Okwara *et al.*, 2019).

#### **1.4.2 E-Marketing Adoption**

The revolution and development in IT/IS, communication technologies, and the Internet in the last three decades has given new scopes to both practitioners and academics. Indeed, deploying information technologies for conducting business and making a competitive advantage has appeared as one of the most significant improvement trends of the last decade (Ahmad *et al.*, 2015; Erum, Rafique, and Ali, 2017). The terms, electronic business, and electronic marketing are since the penetration of internet users is rising dramatically since the last two decades. Different scholars have provided different descriptions of electronic marketing according to their contextual, capability, and judgment. Some of the scholars referred e-marketing as an achievement to businesses' marketing purposes throughout the utilisation of e-communication technology (Chaffey, 2007; McDonald and Wilson, 1999) while others considered it as a process that enables business communications and interactions over online systems (Reedy and Schullo, 2004).

Strauss and Frost (2014, P:54) described e-marketing as the deployment of electronic information and applications for development and implementing the conception, dissemination, and pricing of notions, and products/services to make exchanges that fulfill individual and organisational goals. In the other word, E-Marketing can be described as a modern marketing practice and viewpoint linked with purchasing and selling products/services, data, and concepts through the Internet and other means that benefits both individuals and organisations. A review of extant literature in this field shows that the classifications of E-

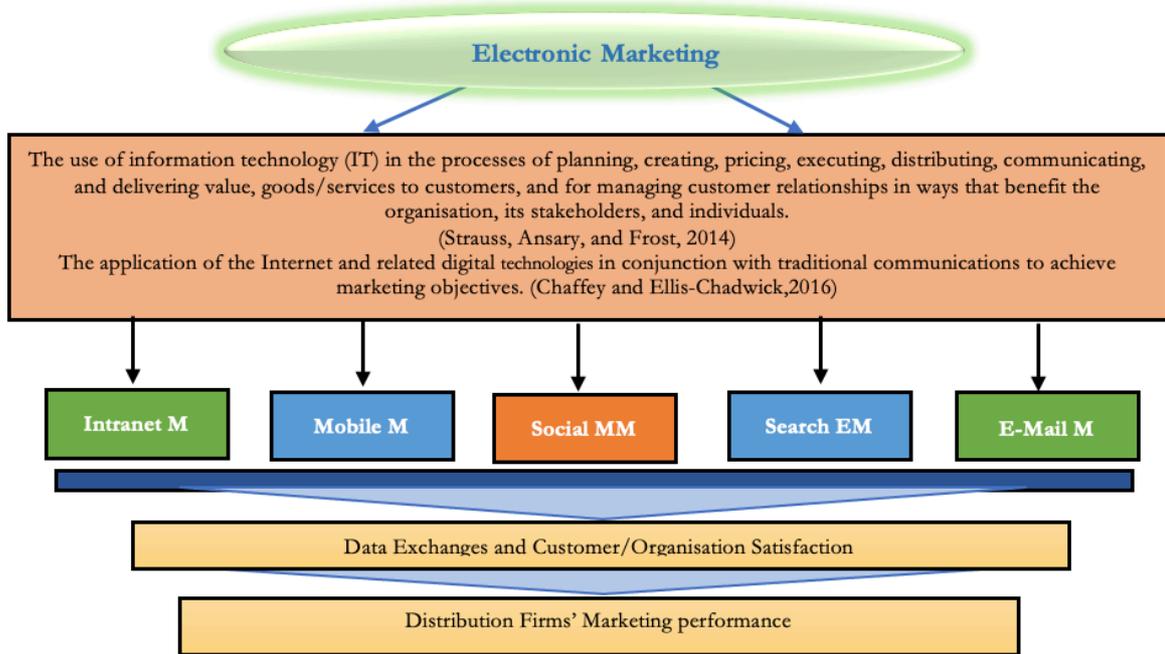
Marketing, change according to the researcher's perspective, background, and focus. The most frequently used descriptions of Electronic Marketing, as well as the main problems associated with it, will be argued in detail in chapter two (appendix 1).

For the purpose of this study, Strauss, Ansary, and Frost (2014) and Chaffey and Ellis-Chadwick (2016) definitions will be used to define E-Marketing. According to Chaffey and Ellis-Chadwick (2016), E-Marketing is defined as: *“The application of the internet and related digital technologies in conjunction with traditional communications to achieve marketing objectives”*. Moreover, Strauss, Ansary, and Frost (2016) define it as: *“The use of information technology (IT) in the processes of planning, creating, pricing, executing, distributing, communicating, and delivering value, goods/services to customers, and for managing customer relationships in ways that benefit the organisation, its stakeholders, and individuals”*.

These definitions are seen to be more holistic in explaining the current research since: i) the definitions take into account the key components of Electronic Marketing as well as all types of goods, it demonstrates the key aims of Electronic Marketing that is mainly associated to generating the interactions that fulfill both, individuals and organisational requirements, since this research attempts to understand strategy of Iranian distribution firms' E-Marketing adoption from both individual and organisational perspectives; ii) the research attempts to interpret the influencing factors of E-Marketing adoption from different perspectives including environmental, individual, organisational, and technological attributes; and iii) this research also attempts to understand the impact of E-Marketing adoption on the marketing performance of Iranian distribution firms in Iran.

Based on the descriptions, Electronic Marketing comprises any utilisation of Information Technology, Electronic data, and applications to conduct organisation marketing activities. As a result, E-Marketing includes Mobile Marketing, Social Media Marketing, Intranet Marketing, Search Engine marketing, Extranet Marketing, E-mail Marketing, Viral marketing, Affiliate Marketing, Electronic Customer Relationship Management (e-CRM), and more. Moreover, for the aim of conducting this study, and based on the outcomes of the reviewed literature, the most commonly used Electronic Marketing Tools are: Intranet Marketing, E-Mail Marketing, Social media Marketing, Search Engine Marketing, And E-mail Marketing in Middle-Eastern developing countries context such as Iran (Madlenak, 2015; Al-Somali,2011; Shemi,2012; Rabie, 2013; Rahayu, 2017; Chaffey *et al.*, 2015; Tauringana, 2019; Helal, 2017; Abdullah *et*

al., 2018; Sunday and Vera, 2018; and Arifin, Fontana, and Wijayanto, 2016). The five key tools of Electronic Marketing deployed by this research are demonstrated in Figure 1.2. This model has been explained in detail in Chapter two, Section 2.2.



**Figure 1.2:** E-Marketing Concept

**Source:** Definition Adopted from Strauss, Ansary, and Frost (2014); and Chaffey and Ellis-Chadwick (2016), Developed by Researcher

### 1.4.3 The Focus of the Study (E-Marketing Adoption-Distribution Firm Marketing Performance)

Prior studies have followed the concept that, the adoption of technological innovation would increase the firms' performance. In the last decade, the development of technological innovation and their usage has grown dramatically across different industries around the globe that poses the question of whether organisational investing on Information Technology leads to a better organisational performance (Zhu and Kraemer, 2005). Research on E-Marketing and its impact on marketing performance have been studied by previous researchers (e.g., El-Gohary, 2009; Lee and Tsai, 2005; Mathews *et al.*, 2019; Setiowat, 2015; Hussein, 2010; Bharadwaj *et al.*, 2013; and Azam, 2014). Correspondingly, with regards to the impact of E-Marketing adoption on the marketing performance of Distribution Firms, the review of the extant literature failed to find any study that has been conducted to examine the relationship between E-Marketing adoption and the marketing performance of distribution firms. hence, this study expands the review of the literature to the wider concepts of E-Commerce, E-Business of other developing countries.

Interestingly, empirical findings in prior studies have found different results. While some studies found the significant positive relationship of E-Marketing-performance (Bharadwaj *et al.*, 2013; Zhu and Kraemer, 2005) or a contingent positive impact (Tippins and Sohi, 2003; and Wu *et al.*, 2006), some other studies found that the Marketing-performance is relatively not significant and have negative impacts (e.g., Uzoka, Shemi, and Seleka, 2007; Karakaya and Stahl, 2009) or no impact (Venkatraman and Zaheer, 1990). Based on the inconsistent findings in the prior studies as well as the absence of conducted study on the E-Marketing adoption-distribution firms' performance, there is a need to investigate the relationship of E-Marketing adoption-marketing performance specifically, on distribution sector in the Iran context since, the outcomes will have crucial impacts for the way organisations approach to information technology investment and management (Zahiri, El-Gohary, and Hussain, 2018; and Lin and He, 2014).

Moreover, this research attempts to examine the influencing factors of E-Marketing adoption of Iranian distribution firms since variables discovered in prior literature vary according to the nature of the business, industry, country of the conducted studies (organisations from developed and developing countries), and time and the period, the research study conducted. From the extant review of literature and the conducted exploratory interviews, the study classified factors influencing the distribution firms' E-Marketing adoption, into four contexts including environmental attributes, individual attributes, organisational attributes, and technological attributes. These factors were derived from various theories of new technology adoption including Technological-Environmental-Organisational (TOE) Framework, Perceived e-readiness Model (PERM), Model of PC Utilisation (MPCU), Technology Acceptance Model (TAM), Resource-Based View (RBV), and Diffusion of Technology Innovation (DOI). Prior studies have extensively researched external factors such as environmental or technological attributes as well as internal organisational attributes. However, ignored managerial/individual attributes, particularly studies regarding E-Marketing context (e.g., Sheikh, Shahzad, and Ishak, 2017; Aljowaidi, 2015; and Qashou and Saleh, 2018). Thus, there is a necessity to extend the study into different perspectives including individual/managerial attributes.

Correspondingly, Ohunmah (2015), Shemi (2012), Rahayu (2015), Alrousan (2014), Muhammad *et al.* (2011), Hassen, Rahim, and Shah (2019), and Rabie (2013) recommend that an integrative model need to be deployed to understand E-Marketing adoption more

holistically. Thus, they (ibid) suggest that future study need to integrate more than two theories of technology adoption such as Resource-Based View (RBV), TOE Framework, E-readiness Model (PERM), and DOI to understand the technological adoption from the organisational perspective in a more holistic approach in developing countries. Consequently, this study underpins the integrative theoretical model by adding managerial/individual context that suggested by (Ohunmah, 2015; Rabie, 2013; and Alrousan, 2014) to the TOE Framework for a better understanding of the individual/managerial characteristic's impact on the adoption process of E-Marketing. Subsequently, this study extends the model by deploying the Model of PC Utilisation (That is related to the individual's behavior toward use of PC in the workplace, and the expected outcomes of such behavior in long-term) and the Perceived E-readiness Model (PERM) (which is the developed theory for developing countries' context indicating the e-readiness of the external and internal environment of organisation), as no previous empirical study found that have integrated and used these theories together with TOE Framework. This model is useful in understanding the impact of E-Marketing adoption of Iranian distribution firms from a more holistic approach.

### **1.5 Research Aims and Questions**

Following the prior discussion in sections 1.3 and 1.4, this study attempts to investigate conceptually and empirically the possible factors influencing E-Marketing adoption by Iranian distribution firms, particularly understanding the role of environmental, individual, technological, and organisational factors in the relationship of E-Marketing adoption.

It is also effective to examine the integration among the variables to achieve a deep understanding of the most critical variables affecting the E-Marketing adoption by Iranian Distribution firms, and subsequently to the firms' marketing performance.

The main study objectives are:

- To investigate influencing factors of Iranian distribution firms' E-Marketing adoption in various perspectives including both internal and external factors of distribution firms to conduct marketing activities.
- To examine how the integration of one or more variables (both internal and external factors) will influence Iranian distribution firms' E-Marketing adoption.

- To investigate the different implementation tools of Electronic Marketing used by Iranian distribution firms.
- To measure the impact of E-Marketing adoption on current and future marketing performance concerning financial and non-financial performance.
- To develop a conceptual framework to understand and interpret the relationship between Electronic Marketing adoption and distribution firms' marketing performance.
- To deploy this model to assess the potential of Electronic Marketing for distribution firms in Iran.

A set of research questions are developed to achieve the study aims and questions. These research questions are:

- What are the different determinants, influencing the E-Marketing adoption of Iranian distribution firms?
- How the integration of internal and external factors affecting E-Marketing adoption by Iranian distribution firms?
- What are the different tools and levels of implementation of Electronic Marketing by distribution firms in Iran?
- What are the impacts of E-Marketing adoption on Iranian distribution firms' current and future financial and non-financial performance?

## **1.6 Research Methodology Overview**

To achieve the aims and objectives of the study and to answer the research questions, the research methodology of the current study was based on the post-positivist approach in which discusses that people cannot acquire the fact from reality when they detach themselves from directly involved with it (Wahyuni and Aprilia, 2019). Thus, by deploying both qualitative and quantitative approaches, the triangulation method was initiated through a systematic and in-depth review of the extant literature of prior studies and reports in the field. The literature themes explored included: i) theories supporting former studies that have determined the influencing factors of E-Marketing adoption (e.g. TOE framework, Perceived e-readiness Model, Model of PC Utilisation, Resource-Based View, Diffusion of Technology Innovation (DOI), Motivational Model, Technology acceptance model (TAM), Social Cognitive Theory (SCT), etc.); ii) the different tools and implementation levels of E-Marketing; iii) countries of conducted research including developed, developing, and Middle-Eastern Developing

countries; iv) influencing factors of E-Marketing adoption in terms of contexts and internal and external factors (e.g. technological, environmental, individual/managerial, organisational, and legal and regulatory contexts) and; v) marketing performance (including financial and non-financial measures). These classifications were then critically compared and differentiated as means of classifying unities, dissimilarities, and gaps in modern knowledge. The conclusion of the study was undertaken afterward guided the second stage of the study that was concerned with finding the different factors influencing Iranian distribution firms' E-Marketing adoption

The researcher then conducted number of semi-structured interviews with the aim to purify the findings from the extant literature. 28 Iranian managers/owners and top managers who are experienced and involved in the IT implementation process were interviewed throughout this purification stage. The sample and interview participants of managers were chosen purposefully from the association of the Iranian distribution industry website that publicly is accessible. The organisations included in the research had already adopted and implemented technological innovations and were not in the initial stages of adoption or non-adopters. The organisations are all Iranian with different ownerships. The study focus was on the distribution industry in different scopes of distribution all over the country (e.g., Groceries, Oil and Petroleum Products, Pharmaceutical and Medical Equipment, Electronics and Home Appliances, Hygienic, cosmetics Distribution of Spare Parts for Automobiles, Battery Distribution, etc.) to identify the influencing factors of E-Marketing adoption in the distribution industry. The selected participants were all experienced and involved in organising the technological innovation, and IT/IS operations and have enough knowledge of IT.

The study conducted pilot interviews to check the validity and quality of the interview questions, to make sure the questions are understandable, and the interview duration is not long, as a long duration interview would reduce the quality of primary data. Next, the researcher conducted semi-structured interviews as this method gives in-depth data on the determinants of Iranian distribution firms' E-Marketing adoption, particularly from the viewpoint of the experts. The researcher conducted face-to-face and focus group face to face, semi-structured interviews to collect primary information about factors impacting their organisations' E-Marketing adoption and the impact on marketing performance. All conducted interviews were recorded via voice recorder and then transcribed into written resources. The researcher shared the transcription with the participants to legalise the initial process. The primary data were afterwards evaluated and analysed manually.

This study developed the conceptual framework and hypotheses by relying on the findings from the exploratory interviews. The next stage involved examining the conceptual framework through an empirical study to confirm its validity in describing distribution firms' E-Marketing adoption in Iran. A combination of the online and traditional mail survey questionnaire was conducted to examine the study hypotheses empirically. Finally, the study analysed 231 data, collected from survey questionnaire with several statistical methods containing Cronbach-Alpha test, simple linear and multiple regression, one sample T-Test, and structural equation modelling (SEM).

### **1.7 Importance of the Study**

The following shows the importance of the study:

- There is no single conducted study that investigated the adoption and utilisation of electronic marketing (in general) and social media marketing, search engine marketing, intranet marketing, mobile marketing, and e-mail marketing (in particular) by distribution firms, or the impact of these electronic marketing tools on distribution firms' marketing performance.
- Distribution firms are essential for the modern and digitalised economy, and it is extensively recognised that they highly contribute to GDP and employment development.
- Electronic Marketing could be one of the most crucial tools to help distribution firms to enhance their profits, competitive advantages, and efficiency.
- The research of information technology adoption in Iran or any other Middle Eastern countries is particularly stimulating, as some factors (Refer to chapter Four) result in firms becoming late adopters. Thus, benefiting from the other countries' experience and knowledge will be beneficial. Furthermore, Iran is an important Middle Eastern country with the highest internet penetration and users in the region, have advanced information technology infrastructure as well as critical and strategic political, geographical, and economic standpoint that be able to embellish the advantages of Electronic Marketing adoption by the Iranian industries and businesses (particularly distribution industry).

These aspects show that it is necessary and vital to conduct a study on both distribution firms and E-Marketing adoption.

## 1.8 Thesis Structure

This current thesis is structured in eleven chapters. The following section briefly describes the contents of each thesis chapters, followed by an illustration of the eleven thesis chapters in Figure 1.2.

### Chapter 1: Introduction

This chapter summarises the research motivation and rationale, the research background, aims and objectives, and research questions are demonstrated. Then, the overview of the research methodology, the importance of the study, research contributions, and the significance for academics and researcher, practitioners, and policymakers are discussed. The chapter ends with providing a brief outline of the contents of each thesis chapter.

### Chapter 2: Electronic Marketing: Definitions and Review of Literature

This chapter presents the importance of E-Marketing to modern businesses and defining the E-Marketing context. Next, the Internet, its history, origins, development, the commercialisation, and the shift from the conceptualisation to commercialisation, the emergence of the Internet as a marketing tool, E-Marketing in the organisational context, E-Marketing and the changes in Marketing Mix (4Ps), the term Dis-Intermediation or Re-Intermediation, the literature and distribution of the E-Marketing literature, E-Marketing Tools and their differences are explained. The chapter reviews the extant literature through the lens of E-Marketing in the perspectives of developed and developing, Middle Eastern developing countries and Iran, Afterwards the chapter reviews the distribution industry, its importance, and its related definitions. Finally, the chapter ends by reviewing the E-Marketing adoption in the distribution sector and its impact on marketing performance.

### Chapter 3: E-Marketing Adoption: A Review on Information Technology Adoption Literature

This chapter critically reviews and analyses the extant literature on the relevant theories of technology adoption, synthesises the different contributions undertaken by prior studies to develop a greater understanding of their impact, and potential for electronic marketing adoption in the distribution sector. The purpose of investigating these theories within chapter three is to identify the variables that might impact the adoption of E-marketing by distribution firms, how this study related to prior research and theories within the field. The chapter ends with criticism

on the theories, integrated models, and theories, and finally, theories underpinning the research area.

#### **Chapter 4: Determinants of Distribution Firms' E-Marketing Adoption**

This chapter reviews the extant literature on the determinants of distribution firms' E-Marketing adoption. Published journal articles within the extant literature were classified according to contexts as they could determine gaps in current knowledge. These contexts include i) external factors of the firms (including technological, environmental, and legal and regulation); ii) internal factors of the firms (including individual/managerial and organisational). The chapter then presents the gaps found in the theories and factors as well as the gaps in the literature of e-marketing adoption, and finally, the chapter ends with a preliminary research framework.

#### **Chapter 5: Research Methodology**

Chapter five explains the research philosophy and methodology deployed to meet the study aims and objectives. It argues and rationalises the triangulation methodology method deployed in this research. Next, it establishes the research population and study samples; after that, there is a brief discussion on data collection methods in both qualitative and quantitative stages. Challenges and issues confronted during data collection, primary data collected, response proportion, and data analysis methods are presented and argued in the last section of the chapter. Finally, the ethical considerations, research measures, the research process, and design methodology framework were presented at the end of chapter five.

#### **Chapter 6: Exploratory Interviews- Exploring E-Marketing Adoption by Iranian Firms in the Distribution Sector**

This chapter presents an exploratory phase of the study regarding influencing factors of E-Marketing adoption by Iranian distribution firms. The chapter initiates by exploring the overview of distribution firms in Iran, current circumstances regarding geographical location, profiles, economic, new technology and its impact on the GDP growth in Iran, technology adoption in the distribution sector in Iran, profile of Iranian distribution firms, division of Iranian distribution firms according to geographical region, business sector, and contribution of distribution firms on Iran's GDP. Moreover, the chapter presents the exploratory study of influencing factors of E-marketing adoption by conducting focus group and face-to-face semi-structured interviews with Iranian distribution firms' managers/owners and top managers who

are experienced and involved in the IT implementation process. Afterwards, the data transcription process, analysis and findings were discussed in brief. Finally, the chapter presents the comparison of the findings with prior literature to develop the research framework as well as the research hypothesis for the quantitative phase of the study.

### Chapter 7: A Revised Research Framework Based on the Findings of the Exploratory Interviews

This chapter aims to develop a research framework and research hypotheses based on the findings of exploratory interviews and the qualitative phase of the study (review of extant literature and semi-structured interviews) that argued in chapter two, three, four and six. The chapter initiates by demonstrating the research questions, after that, a discussion of the need for the research framework in understanding distribution firms' E-Marketing adoption in Iran. Also, it argues the research variables and measures describing the factors impacting E-Marketing adoption, measures of E-Marketing adoption and the measures of marketing performance. Next, the levels and tools of E-Marketing implementation presented. Finally, the chapter ends with the research framework, developing the research hypotheses that will be building the research survey questionnaire.

### Chapter 8: Quantitative Phase Study 1: Descriptive Data Analysis

This chapter argues the descriptive analysis of the collected primary data from the survey questionnaire of 231 CEO, owners/ managers, chair, and top managers of distribution firms in Iran. It presents considerable data about the participative study samples that, in turn, will lead to answering study questions and meeting the aims and objectives of the research.

### Chapter 9: Quantitative phase study 2: Inferential Data Analysis, Reliability and Hypotheses Testing

This chapter argues that inferential data analysis resulted in the survey questionnaire of 231 respondents. The inferential data analysis was conducted in two phases. In the phase, an initial analysis conducted to test the validity and reliability of all multi-dimensional study concepts, and they were tested prior to examining the hypothesis. In the second phase, the research conducted various analysis including simple linear and multiple regression, one sample T-test, and structural equation modelling (SEM) for testing the hypotheses, to answer the research questions, and to meet the research aims and objectives.

### **Chapter 10: Interpretation and Discussion of the Findings**

This chapter interprets and argues over the results, from both quantitative and qualitative data analysis. These results are compared with prior studies within the research field.

### **Chapter 11: Conclusion: Contributions, Implications, Limitations and Recommendations for Future Works**

This chapter is concerned with the research contributions regarding the academic and researcher, Practitioners and managers, and policymakers. This chapter also discusses the implication of the research on the growing body of knowledge within the field, research limitations, and the recommendations for future research are presented and discussed.

**Figure 1.3:** Thesis Structure



Source: The Researcher

## **1.9 Chapter Summary**

This chapter outlines the overall structure of the research thesis. It initiates with a brief discussion on the motivation and rationale of the research, the background and the importance of the concept, and the focus of the research are described. Next, the research questions and the study aim, and objectives are presented following by an overview of the research methodology, the importance of the study and research contributions for both academics and practitioners as well as policymakers.

## Chapter 2 Electronic Marketing: Definitions and Review of Literature

### 2.1 Introduction

*"The underlying principles of strategy are enduring, regardless of technology or the pace of change".  
(Michael Porter, 2001)*

Adoption of E-Marketing as a new Information Technology innovation is inevitable within the recent years. E-Marketing is not only altering the way business conducts marketing activities, communication, ordering and dealing with customers or suppliers, but even further, is revolutionised the business standpoint from "production excellence" to "customer intimacy" and from being "mediator of dealer" to being "mediator of the purchaser" (Achrol and Kotler, 1999; Treacy and Wiersema, 1997 cited by MacGregor, 2005). This chapter aims to critically review the literature on distribution channels' E-Marketing adoption to identify knowledge gaps. The chapter begins with a broad review of E-Marketing and distribution channels literature. The first section inspects definitions of E-Marketing, a conceptual review of the internet, its origins, and the emergence of the internet as marketing tool. The chapter also demonstrates the differentiation between the concepts of E-Marketing, Electronic Commerce, and Electronic Business to make a base for understanding these different concepts. Afterwards, the E-Marketing concept within developed, developing countries, and Iran was discussed and compared. Later, the theoretical background of distribution channels is discussed, and there is a broad review of the literature about E-Marketing and distribution firms as a foundation for the research design. Through this review, research gaps in the literature will be identified to establish a base for the study into E-Marketing and distribution firms.

### 2.2 Electronic Marketing

In today's global marketplace the only way to survive for businesses is to deliver products/services on time, sustain credibility, and be faster than the competitors in launching new services/products (Al-Somali, 2011). E-Marketing has transformed the way businesses is operated around the globe. The commercialisation of the internet and the World Wide Web has propelled E-Marketing to become one of the most essential mediators for simplifying the way of communication and sharing of business information internally, within firms and between business partners (Ahmad *et al.*, 2015).

E-Marketing, also known as Online Marketing, involves applying the Internet and related digital technologies to achieve marketing purposes and to support the modern concept of marketing (Chaffey *et al.*, 2009, p. 6). The Internet has a huge potential for transforming commerce, and it gives businesses many challenges and opportunities for trading and participating in the gold rush of the information age (Dutta, Kwan, and Segev, 1998, p. 541; Chaffey and Ellis-Chadwick, 2016). A review of the extant literature shows that there are many definitions for E-Marketing, according to the authors' different views. According to Smith (2004) in Wymbs (2011) "E-Marketing refers to the use of digital technologies to create an integrated, targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them". The Institute of Direct Marketing also defined E-Marketing in 2015 as "Applying internet technologies which form online channels to market to support marketing activities for achieving profitable acquisition and retention of customers within a multi-channel buying process and customer lifecycle through recognising the strategic importance of digital technologies and developing a planned approach to reach and migrate customers to online services through e-communications and traditional communications." (The Institute of Direct Marketing, 2015 in Chaffey, 2015). According to the definitions, it is obvious that E-Marketing is a broad field that refers to various and different activities which are deployed to reach audiences via digital technologies. While Chaffey and Ellis-Chadwick (2016) define it as:

*"The application of the internet and related digital technologies in conjunction with traditional communications to achieve marketing objectives".*

(Chaffey and Ellis-Chadwick, 2016, P.11)

Strauss, Ansary, and Frost (2016) define it as:

*"The use of information technology (IT) in the processes of planning, creating, pricing, executing, distributing, communicating, and delivering value, goods/services to customers, and for managing customer relationships in ways that benefit the organisation, its stakeholders, and individuals".*

(Strauss, Ansary, and Frost, 2014, P.3)

Roberts and Zahay (2012) define it as:

*"E-Marketing has been generally defined as the use of internet technologies to achieve marketing objectives".*

(Roberts and Zahay, 2012, P.30)

Siegel (2006) defines it as:

*“Marketing in electronic environments, primarily on the internet, world wide web (WWW), Intranets and extranets”.*

(Siegel, 2006, P.4)

There are various definitions for E-Marketing, but commonly it refers to the utilisation of the Internet for promoting and selling goods/services. In that regard McDonald, (1999) state this phenomenon as The marketing of products/services through the Internet which is directly related to the perception of individuals from place and promotion of the marketing mix. This means that not only the Internet is a mean, for determining the potential of products/services and price formation in the market, but also is assumed as the internet (marketing) research and not marketing as such (Ali *et al.*, 2014). The internet itself can be used to identify or anticipate customers' requirements and describes the satisfaction, communication, or delivery process (Hofacker, 2008; McDonald, 1999; and Chaffey *et al.*, 2015). For the purpose of this study, the Strauss, Ansary, and Frost (2014) and Chaffey and Ellis-Chadwick (2016) definitions will be used to define E-Marketing since the definitions take into account of the key components of Electronic Marketing and explains the main aims of E-Marketing.

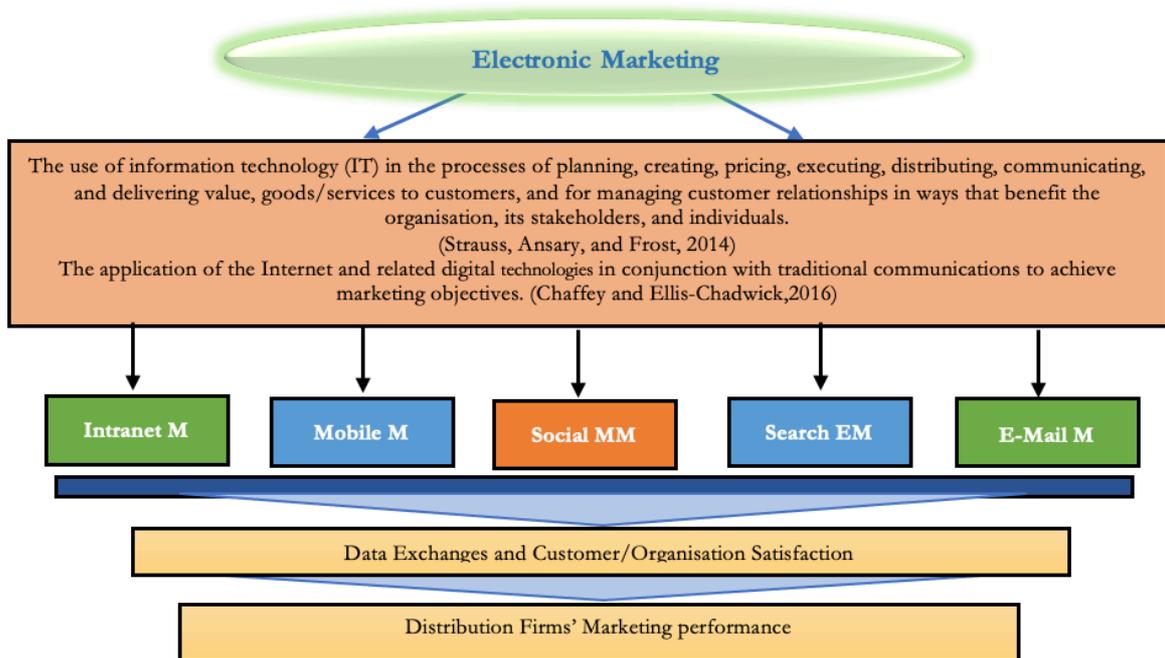
Since the creation of the internet, there were many of its potentials has been explored by various scholars (e.g., Chen and Huang, 2016; Salem *et al.*, 2013; Ali *et al.*,2015; and Shaltoni, 2018). The digital era led the firms toward developing new approaches at the marketing level (Ghobakhloo and Tang, 2015). Various researchers (e.g., El-Gohary, 2012; Mazzarol, 2015; and Tsekouropoulos, *et al.*, 2013) believe that the Internet led to a separation process based on a proactive stance. Importance of E-Marketing research by Hoffman and Novak (1997) revealed that the internet is creating a paradigm shift in businesses and at the same time is changing the ways of doing business with the customer. Many companies apply new methods to attract customers and at the same time sell products to the consumers (Trainor *et al.*, 2013).

Many countries have taken steps not only to provide internet connection for the citizens but also strive to achieve a high penetration rate due to the realisation that the internet facilitates the development of a knowledge-based society (Mohd Fairuz *et al.*, 2012). Consequently, the world is becoming a global village not only in terms of Information exchanges but also trades due to the facilitation effects of the World Wide Web (El-Gohary,2009). With the introduction of the Internet, marketers always thinking of beneficial marketing as a process of drawing

potential customers/suppliers into progressive satisfaction of their relationship with the organisation (Blattberg and Deigton, 1996).

The origin of E-Marketing precedes the internet. The development of E-Marketing began in the early 1960s, although the majority of functions linked with innovations raised around the Mid-1970s in the form of electronic funds transfer (EFT) (Turban, King, Lee, and Viehland, 2004 cited in Shemi, 2012). Following to another innovation was presented as Electronic Data Interchange (EDI), beneficial for business transactions (Turban *et al.*, 2004; Papazoglou and Ribbers, 2006). The early 2000s was the crash of “dot.com” (Teo and Ranganathan, 2004). And since then, there has been publicity among firms, governments, and practitioners, on finding the best techniques to deploy ICT with the least loss and system failure. Throughout the years, the number of Internet users has improved remarkably (Senn, 2004, p.386). Thus, simplifying the goods/services exchange between businesses, firms, and individual. The adoption of E-Marketing has been very popular in the business world with companies in developed countries.

Based on the definitions, E-Marketing comprises any use of Information Technology, Electronic data, or applications to conduct organisation marketing activities. As a result, E-Marketing includes Mobile Marketing, Social Media Marketing, Intranet Marketing, Search Engine marketing, Extranet Marketing, E-mail Marketing, Viral marketing, Affiliate Marketing, Electronic Customer Relationship Management (e-CRM), and more. Moreover, a review of extant literature shows that the most commonly used E-Marketing Tools are Intranet and Extranet Marketing, E-Mail Marketing, Social media Marketing, Search Engine Marketing, and E-mail Marketing in developing countries context (El-Gohary, 2009; Al-Somali, 2011; Shemi, 2012; Rabie, 2013; Rahayu, 2017; Chaffey *et al.*, 2015; Tauringana, 2019; Helal, 2017; Abdullah *et al.*, 2018; Sunday and Vera, 2018; Arifin, Fontana, and Wijayanto, 2016). Subsequently, this study will investigate five main tools of E-Marketing that establish exchanges and satisfaction for both organisation and customers; with the potential to boost the performance of firms. However, to understand the potentials and dynamics of each of these five E-Marketing tools, a conceptual review of the internet and E-Marketing origins, development and usage in marketing activities are explained in the next section of this chapter (Figure 2.1). A conceptual review of the main E-Marketing tools will then be discussed following the comparison of E-Marketing usage in developed, developing countries.



**Figure 2.1:** E-Marketing Concept, **Source:** Developed by the Researcher

### 2.2.1 The Internet

The Internet as one of the key elements of E-Marketing, in the past two decades, has transformed the nature and characteristics of the media and the way of communications in unique methods that have never happened earlier. The Internet is an embryonic means which has eased the development of businesses and has opened wide market prospects for organisations (Amornkitvikai and Lee, 2020; Hassen, Rahim, and Shah, 2019; Mohan and Ali, 2019; and Kithinji, 2014). In very few years, internet has created fundamental changes in business processes (Chatzoglou and Diamantidis, 2009; and Ifinedo, 2011) and facilitates relationships with related market parties (Majumdar and Chang, 2010; Lucia-Palacios *et al.*, 2014). When combined within the firm’s strategy, internet can contribute to “information-sharing, information-exchange, relationship-building activities and other market orientation supporting activities” (Brock and Zhou, 2005; and Chang *et al.*, 2002).

Companies are moving to use the Internet as a way of segmenting the market and incorporating a technique that no other firm using for reaching customers (Ščeuļovs and Gaile-Sarkane, 2011). The potential applications of the internet are being expanded and companies first to exploit these opportunities would have a tremendous advantage over their more traditionally

oriented competitors (Munyasi, 2015). For business purpose, the internet provides an enormous marketplace to firms that enable them to compete on a global basis more effectively than in a conventional business setting (I-Madi, Al-Zawahreh, and Al-Qawasmi, 2012). Although the Internet's acceptance is growing rapidly among businesses, there is still a great deal of confusion about the Internet and what it has to offer the business world (El-Gohary, 2012). The Internet is, physically, a network of computer networks that is made up of well over two-and-a-half million host computers and is growing at the rate of over two million new users each month (Eager, 1994). But beyond this, the Internet is, theoretically, a new and highly efficient way of accessing, organising, and sharing information (Shemi *et al.*, 2013). Nevertheless, of some problems linked with the dynamics of this interactive media (e.g., security and privacy concerns, technological issues, slow speed, lack of trust, etc.), undeniably the Internet is rapidly replacing the traditional marketing techniques (Hoffman and Novak, 1997; and Quelch and Klein 1996).

The internet's ease of use facilitates the rapid growth of Internet users, both for individuals and organisations, throughout the world. The number of Internet users is increasing dramatically year by year and creates new opportunities for its users. However, with this dramatic increase of use, there is also rising potential for distribution firms to communicate with their targeted customers and suppliers and make useful relationships that will boost their businesses. According to Internet World Stats, the number of Internet users as year-end 2021 was around 5 billion people with 64.2% of internet penetration (Table 2.1).

According to estimations, Internet has gain significance for the business use and has been used as integral marketing tool to develop new marketing strategies and this has revolutionised the business world over last three decades (Chaffey *et al.*, 2015). In 1994, few businesses considered internet as a part of their marketing or business model to promote their services of products (Cronin, 1994). However, by 2000 businesses began to gain a better appreciation of the internet utilisation for their businesses and this trend continued until today amongst firms in developed economies (Chaffey *et al.*, 2016; Alrousan ,2015; Awa, Baridam, and Nwibere, 2015; Alizadeh, and Pourashraf, 2015; Erum, Rafique, and Ali, 2017; and Tauringana, 2019).

**Table 1.1:** Internet Usage Statistics, World Internet Users and 2020 Population States

| World Internet Usage and Population Statistics<br>2021 Year-End Estimates |                           |                          |                                  |                                 |                     |                    |
|---|---------------------------|--------------------------|----------------------------------|---------------------------------|---------------------|--------------------|
| World Regions   | Population<br>(2021 Est.) | Population<br>% Of World | Internet<br>Users 31 Dec<br>2020 | Penetration<br>Rate (%<br>Pop.) | Growth<br>2000-2021 | Internet<br>World% |
| Africa  | 1,373,486,514             | 17.4%                    | 590,296,163                      | 43.0%                           | 12,975%             | 11.7%              |
| Asia  | 4,327,333,821             | 54.9%                    | 2,707,088,121                    | 62.6%                           | 2,268%              | 53.6%              |
| Europe  | 835,817,917               | 10.6%                    | 728,321,919                      | 87.1%                           | 593%                | 14.4%              |
| Latin America /<br>Caribbean  | 659,743,522               | 8.4%                     | 477,869,138                      | 72.4%                           | 2,544%              | 9.4%               |
| Middle East   | 265,587,661               | 3.4%                     | 188,132,198                      | 70.8%                           | 5,627%              | 3.7%               |
| North America   | 370,322,393               | 4.7%                     | 332,919,495                      | 89.9%                           | 208%                | 6.6%               |
| Oceania /<br>Australia  | 43,473,756                | 0.6%                     | 29,284,688                       | 67.4%                           | 284%                | 0.6%               |
| World Total   | 7,875,765,584             | 100.0%                   | 5,053,911,722                    | 64.2%                           | 1,300%              | 100.0%             |

**Source:** Internet World Stats (2021)

Globally, internet access has been grown by 25 percent between 2000 and 2009 and raise to 58.7 percent in 2019 (Internetlivestats, 2019). Revenue from transactions, has totaled to \$20 million in 1994 (Rosner, 1995), with future estimates ranging as high as \$5 trillion by 2021 (Johnson, 2020). Internationally, the number of websites hosted by firms and government organisations has seen a rapid increase, they have increased from 23 million in 1995 to more than 55 million in 2005 (Zakon, 2005) and this number has increased to 1.75 billion in 2020 (Internet Live stats, 2021; and Hosting facts, 2021).

Over the past 15 years, the internet as a global communication and exchange medium has witnessed significant growth (Rahayu, 2015). Globally, the number of websites increased from 23,000 in 1995 to more than 362.3 million registered domain names in 2020 (Business Insider, 2020; Hosting facts; 2020). The launch and growth of the internet have stimulated considerable interest in the academic and scholar. As a result, it changed to the largest network today and has established a high level of growth in most developed countries (Awa, Baridam, and Nwibere, 2015). Businesses need to be aware of the available opportunities and recognise how their companies may be susceptible if competitors seize those opportunities first (Jamali, Samadi, and Gharleghi, 2015).

## **2.3 The Emergence of Internet as a Marketing Tool (The Internet and Marketing)**

The emergence of internet as marketing tool began with “the traditional Acceptable User Policies (AUPs)” that were emphasising on limiting profit-oriented marketable use of the Internet (Shuai and Wu, 2011). This led to a major confliction in cultures between original users (researchers), who emphasised on free data exchange, and corporate users (McGaughey, and Mason, 1998). However, the culture conflict, was short lived and marketing on the Internet is nowadays become a commonly accepted part of the WWW (Shaltoni, 2017). The Internet has changed both the way companies interact and communicate with their customers, and the way of conducting business. Marketing activities are no longer relies on traditional methods and simple text messages, as the WWW allows businesses to have collaborative marketing since the individuals are actively involved in replying to sellers’ advertising campaigns (Poon and Jevons, 1997, cited in El-Gohary,2009). This interactivity is opposite the traditional marketing methods that deploy print media and broadcast. Although the latest growths, allow complete multimedia collaborative simulations to do marketing activities on the Internet straightaway and suggests great possibility for direct marketing and initial stage marketing (Berthon *et al.*, 1996).

With the fast rate of internet growth by means of speed, reach, and adoption (Tan *et al.*, 2009), most businesses are adopting the applications themselves. Such changes have opened up a variety of opportunities for marketers (Pollack, 1999), resulted in an extraordinary pace of change in marketing strategies and operations (Vandarajan and Yadav, 2009). In the other word, the Internet, proposes the opportunity for distribution firms to connect and manage business at different levels. There are also prospects for firms in developing as well as developed countries to conduct business and increase their marketing methods. For instance, as an emerging economy, Iranian distribution firms are getting significant support from government to grow their full Internet potential.

### **2.3.1 E-Marketing Adoption in Organisational Context**

Adoption of Information and Communication Technology-based systems, in today’s digital economy, has become of fundamental importance for governments and corporations. In fact, E-Marketing has become a substance for organisational change in a rapidly technologically changing environment (Farahani and Khansoz, 2014). According to Aduda and Kingoo (2012) the growth and extensive utilisation of IT applications suggest many opportunities for users, at both individual and organisational levels. For Instance, in a study conducted by Ongori and

Migiro (2010) discussed, three transformations caused by ICT development that convert businesses operations. First, ICT development impacts industry structures and influences the degree of competition between businesses. Second, companies that integrate the Information Technology in their procedures comprehend a positive alteration in their competitive advantage. The third conversion is linked with direct effects on businesses operations. These transformations have bound companies to identify the prospects to compete in the global market. IT innovations have been contemplated essential to economic development, effectiveness, and productivity (Damanpour and Schneider, 2006). Hence, the role of IT in business perspectives has received tenacious attention from researchers, and there are many empirical studies have been conducted in this field. This may justify the reason why E-Marketing adoption is a broadly examined research stream in the Information Technology context (Tarutè and Gatautis, 2014; Tehrani and Shirazi, 2014; Low, and Chen and Wu, 2011).

From a business standpoint, many researches have recommended that, adoption of internet as marketing tool can enhance effectiveness and competitiveness (Manochehri, Al-Esmail and Ashrafi, 2012; Ongori and Migiro, 2010; and Damanpour and Schneider, 2006), can measure a critical element, for the success of corporations (Kapurubandara and Lawson, 2006), and a vital contributor for a sustainable competitive advantage of organisations (Abeysinghe and Alsobhi, 2013; Omosigho and Abeysinghe, 2012; Celuch, and Murphy and Callaway, 2007). Moreover, an extensive array of IT tools has made considerable contributions in diverse business areas, such as: marketing and communication, networking, and resource planning (Tarutè and Gatautis, 2014). IT adoption can bring of potential benefits for all businesses (Nguyen and Waring, 2013), supporting them to understand internal and external business needs (Omosigho and Abeysinghe, 2012) and to achieve significant business growth (Dibrell, Davis, and Craig, 2008).

### Dis-Intermediation or Re-Intermediation?

There were many discussions in previous articles on whether the Internet as a marketing tool a threat for mediators would be or unlike, would open new opportunities to distribution firms through direct interrelation with customers without being need of retailers/wholesalers (Munyasi, 2015; Lin and He, 2014; and Kaewkitipong, 2010). Although previously, the focus of businesses was toward the elimination of mediators and the direct interface between suppliers and end-users, there is a consensus nowadays that mediators will remain but with the adoption of new roles that robust the industry (Kaewkitipong, 2010). The Internet has changed

the policies and structures of many firms and the consumers' behavior, as it directly links them to suppliers. This has downplayed the role of mediators and distribution firms in what became known as "dis-intermediation" (Rahayu, 2015; Shemi, 2012; Buhalis and Jun, 2011; and Cheung and Lam, 2009). The term, "*dis-intermediation*" refers to the avoiding process of the ultimate supplier, and skipping the mediators, and prefers to sell and deliver the products directly to end-users (Buhalis and Jun, 2011). Nelson *et al.* (2010, p.162) discuss that WWW, offers an efficient channel for promoting, marketing and even direct distribution of certain products and information services. Instead, Sakar *et al.* (1998) explain that e-marketplaces will lead to a new set of intermediaries called cyber-mediaries that function online to facilitate the exchanges between suppliers and customers by meeting the needs of both.

While different opinions exist on the intermediation versus dis-intermediation effect of the internet on distribution, more and more researchers are reaching an agreement on that intermediary will not disappear and simultaneously will not remain the same. New forms of mediators or cyber-mediaries will be created and will presume new roles that are modified to the new technology to meet the changing needs of customers and suppliers. In fact, many researchers argue that the Internet has shaped an entirely new form of mediatory (Smith and Manna, 2014). Luo and Donthu (2017) stated that, recent evidence of online retailing recommends that disintermediation forecasts were limited and that cyber intermediaries will persist to add value in the supplier and consumer chain, benefiting both manufacturers and consumers. Hence a more rational view of the effect of the Internet on distribution channels is that it will change but not eliminate middleman (Shunk *et al.*, 2007). While distribution firms are facing dis-intermediation by E-Marketing, this latter suggests them a powerful tool to re-intermediate into global market (Rahayu, 2015).

## **2.4 E-Marketing Tools**

Internet currently has become an important channel for businesses and individuals in the modern world. It is not possible to reach to such a wide volume by using traditional selling channels. E-Marketing tool could be distinguished with the emergence of websites in 1990s (Tsimonis and Dimitriadis, 2014). The first simple website, provided consumers with basic information about the company, services, or products. However, internet content has improved and expanded, as the new tools had emerged (Campbell,2011). According to Vukasovic (2013), the internet provides the opportunity for the companies to reach wider audiences and to create

persuasive value propositions that was not possible before, while providing new tools for promotion, interaction, and relationship building.

E-Marketing not only includes promotion or providing information on the websites, but also the elements, such as: E-mails, social networks, optimising the web page for search engine results, Intranet, and extranet network etc. (Tregrove, 2011). One of the biggest errors in business growth and the implementation of E-Marketing is the fact that, companies are constantly trying to quickly develop and execute E-Marketing, without any clear plan (Davidaviciene, 2016). Perfectly planned strategy makes it very easy to distinguish companies that are committed to work in long-term perspective, from other companies which carry out E-Marketing simply because the market says that it must perform (Rabie,2013). The latter company can easily fail, when there be a lack of information on website, or managers/owner have uncertainty on adoption of correct tools. Need. these are just a few examples of companies that still not fully understand the E-Marketing potential, which tools to be used, how much it can help to expand their business, and reach to much larger audiences of potential customers with relatively very low costs (Chi, 2011).

#### **2.4.1 E-Marketing Tools used in this research**

For the purpose of conducting this research, the adoption of five main tools of E-Marketing by distribution firms and impact of this adoption on the marketing performance of firms in distribution sector will be investigated. These tools are E-Mail marketing, Search Engine Marketing, Mobile Marketing, Intranet Marketing, Social Media Marketing. This research however, excluded Extranet Marketing to be investigated for the following reason: Generally, firms that adopt Intranet network can share their information with their customers, suppliers, and business partners which known as extranet marketing. In Iran, Intranet or internal network began to implement in 2012 among large companies in private sector and governmental organisations as these particular businesses are having internet with reasonable speed. This has developed until 2019, intranet network covered 80 per cent of businesses, education systems and even small and medium enterprises. However due to blocking popular webmail services, hindering encryption use by restricting VPNs and HTTPS, and prohibition of externally developed security soft wares only 10 per cent of business be able to adopt extranet marketing network where those who adopted where from governmental corporations (Alimardani and Milan, 2018; and Powers, Shawn, Jablonski, and Michael, 2015). For that reason, this study

has decided to eliminate the investigation of extranet marketing factors and its impact on marketing performance. The next section of the chapter will discuss these tools.

#### **2.4.1.1 E-Mail Marketing**

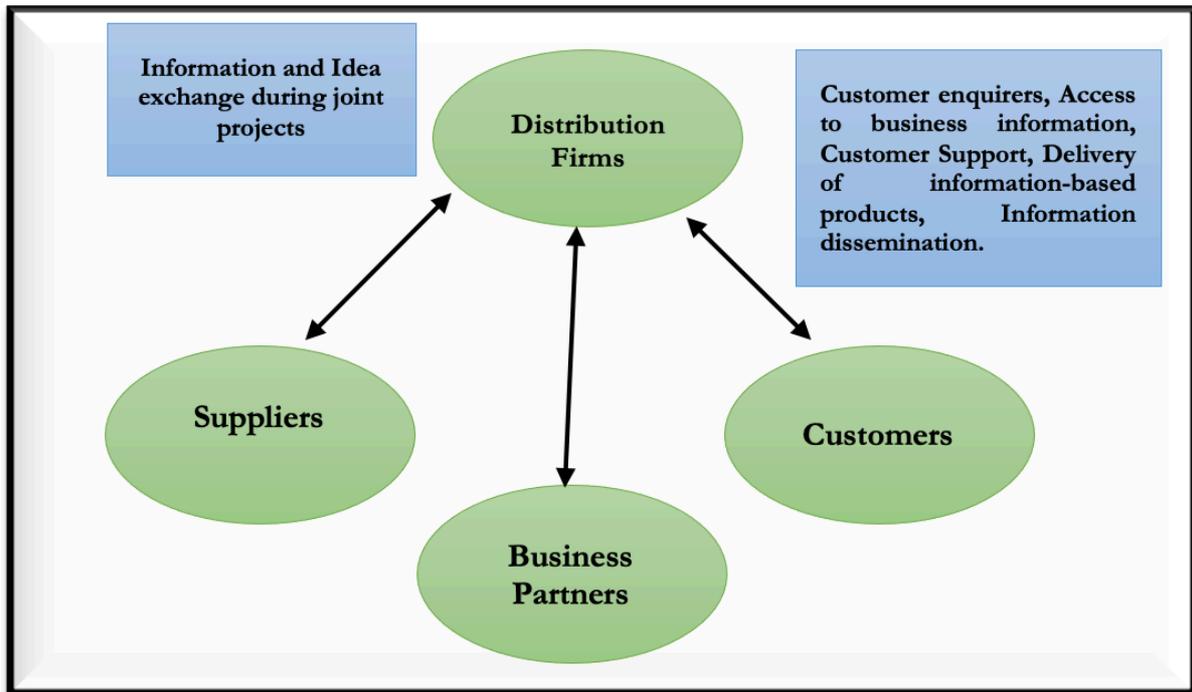
One of the most common E-Marketing tools is electronic mail known as E-mail Marketing which is a natural use of networked communication technology that developed along with the evolution of the Internet (Saraf, 2019). E-mail Marketing is an important medium of marketing communication especially for companies seeking to build and maintain closer relationships with customers (Chaffey *et al.*, 2016). According to Mullen and Daniels (2011), E-mail Marketing refers to evolving marketing strategies that deploy electronic mail to connect with existing and future customers. Indeed, message exchange in one form or another has existed from the early days (Liljeroos 2013; and Kaur, 2017). Online e-mail services started in 1993 when the large network service providers America Online and Delphi started to connect their proprietary e-mail systems to the Internet, beginning the large-scale adoption of Internet e-mail as a global standard. Even though e-mail was developed for the ARPA-net, shortly after its creation, it has evolved into a powerful technology that has become the most widely used application on the Internet at the beginning of the 21st century (Joseph *et al.*, 2017; and Yang, Shi, and Wang, 2015). Electronic Marketing as a part of E-Marketing is deployed to enhance traffic of website and to support sales.

Chaffey *et al.* (2016, P. 420-422) differentiate between two different forms of E-Mail Marketing namely: i) Outbound E-Mail marketing; and ii) Inbound E-Mail marketing. They (ibid) stated the Outbound E-Mail marketing as: “E-Mails campaigns employed as a type of direct marketing where E-mails are referred to clients and prospects from a firm”, and Inbound E-Mail Marketing as: “A controlling E-mails from consumers by an organisation”. The idea behind this E-Marketing tool is to send attractive, specialised, and considerable commercials

and marketing activities to targeted recipients that might be keen in receiving such messages rather than sending the same messages to a group that does not have keen in receiving it. On the other hand, E-mail marketing is usually a permission-based method and depends on the enthusiasm of the receiver if need such information, rather than unwanted commercial e-mail (UCE) that is called as SPAM which refers to extensively sending a massive quantity of e-mails and newsletters to the individuals without acquisition of their consent earlier (Kumar, Zhang, and Luo 2014). On the other hand, when conducting E-Mail Marketing campaign, if the customers implies that the received e-mail is SPAM their Internet service provider (ISP), then it will automatically produce an abuse statement that can lead to serious issue which then will result in prevention of other e-mails produced and sent from the firm e-mail address from being received to other e-mail addresses over the ISP (Zhang, X., Kumar, V. and Cosguner, K., 2017). There are two main strategies for acquiring a contact permission from customers Kaur and Singh, 2017): i) opt-in; and ii) opt-out. Within the opt-in policy the customer must explicitly state that, they give the permission to the businesses for receiving their e-mail (Sahni, Zou, and Chintagunta, 2016). According to Jeshurun (2018), e-mail marketing campaigns produce about twice the return on investment (ROI) of the other forms of online marketing.

From distribution context, Mackintosh *et al.* (2017), discussed the utilisation of e-mails by distribution firms, from a marketing standpoint. Based on their (ibid) arguments, distribution companies use e-mails to interrelate with suppliers, customers, and business partners. Within this perspective, and as demonstrated in figure 2.2 distribution organisations generally use e-mails to exchange data and opinions with business partners from one-end and to provide, support, and deliver information to its suppliers/customers, obtain their enquiries, and allow them to access to business information.

Based on the prior discussion, it is perceived that the number of conducted studies to investigate e-mail marketing is scarce and all these few studies focus on investigating this tool as the only e-marketing tool without integrating with other tools and have not investigated e-mail marketing from distribution industry perspective and most of these studies are conceptual and theoretical (e.g., Liljeroos 2013; Kaur,2017; Bawm and Nath, 2014; and Mullen and Daniels, 2011). This exposes a gap in the field of E-Marketing in general and E-Marketing in distribution industry in particular. To cover such a gap there is a necessity to conduct research studies to investigate the different factors affecting the adoption of e-mail marketing by distribution firms.



**Figure 2.2:** E-mail usage between a distribution firms, its customer, supplier, and business partner

### 2.4.1.2 Search Engine Marketing

Internet is a wide community, comprising millions of users that nowadays is the most important communication tools and an important customer potential for everyone who believes about business based on Internet environment. As a result of increasing popularity of the Internet, a crowd, which is also named as “electronic community” was appeared. Marketers, who try to reach customers in the fastest and effective way and reduce customer reaching costs, aim to reach electronic communities (Chaffey *et al.*, 2017). Search engines currently conquer a prominent position in online environment (McCloskey, 2006). Consequently, search engines play an important role in helping firms to be identified and found by new customers (Mullen and Daniels, 2011).

Research demonstrates that more than 80 percent of individual and customers attempt through the search engine to search and find information. Conversely, in the face of enormous data, consumers mostly are interested to click on the top list of search engine results, thus, it is very necessary for businesses webpage to be ranked on top when searched on search engines. Search Engine marketing defined by Chaffey *et al.* (2016, P. 506) as” a promoting technique by businesses through search engines to meet their objectives by delivering relevant content in the

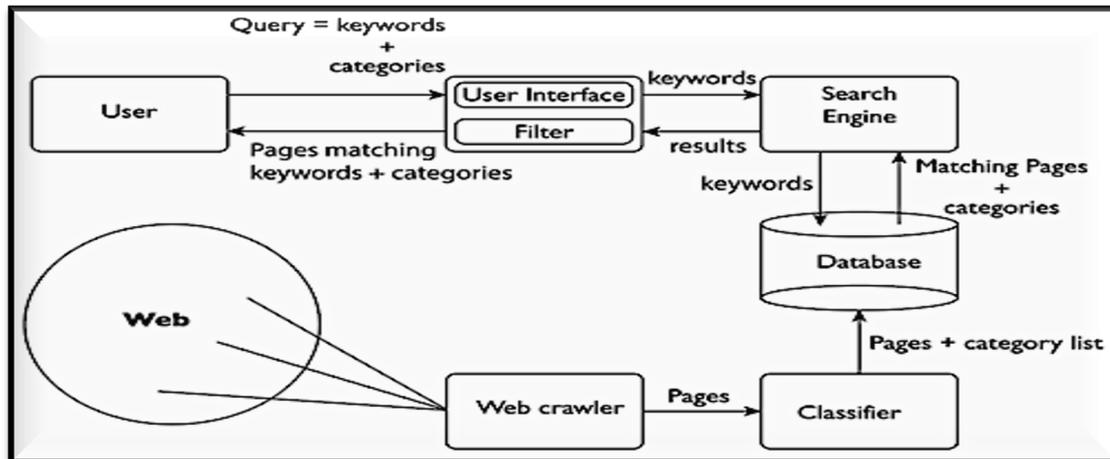
search listing for searchers and encouraging them to click through to a destination website”. Search engine marketing contains of two techniques i) Search Engine Optimisation (SEO) to improve results from the natural listings; and ii) Paid Search Marketing (PSM) to deliver results from the sponsored listings within the search engines (Chaffey *et al.*, 2016, P. 507).

SEM is the marketing method with a purpose of achieving to more visibility in different search engines both by receiving more free traffic or paid traffic (Waheed and Yang, 2017). SEO, which alters or modifies the website content to attain greater page ranking in search engine result pages. Firm to get their best results, both with organic SEO and paid SEO performs need to have mutual goals and joint metrics, assessed the data to establish future plans (Alizadeh and Pourashraf, 2015). The SEO tools can support Search Engine Marketing throughout the general improvement of web pages by technical reviewing the web page of a website (Chaffey *et al.*, 2017).

Search engine marketing is the largest source of revenue for Google (Edelman *et al.* 2016), which is the market leader of search engine providers in most Western countries, mostly ahead of Yahoo and Microsoft search engines (Ghose and Yang, 2009). The term “SEO” refers to the efforts of businesses that aim to increase the ranking of their web page in the organic search results, whereas the term “SEM” defines firm’s efforts regarding optimising the position of ads in the sponsored search results (Rangaswamy *et al.*, 2012). Quinton and Khan (2018) state that having a webpage nowadays, is a compulsory for all organisations as well as, having the webpage does not necessarily means that the firm is a successful firm. In a study by Murphy and Kielgast (2017) on Swedish firms found that although all study firms have their own website, not all of them applied SEM techniques, which resulted to a poor marketing planning and lack of control on their website.

On the other hand, search engines are classified into three categories: 1) Crawler-based search engines *that is* crawler programs in which make databases by techniques for web computers. These crawlers are programs that settle on a host system and recuperate data from destinations on the web employing conventions (Thelwall, 2015). 2) Human-powered directories that depends on human based implementations for relocations. Site owner gives a short depiction of the website to the office together with category that need to be recorded. Keywords written in the search box will be synchronized with the depiction of the locations (Burghardt, Heckner, and Wolff, 2012). And 3) Hybrid search tools that employ both crawler-based and manual

collation for postings the locations in result list. A large percentage of the crawler-based web directories like Google essentially exploits crawlers as a vital constituent and manual screening as a supplementary tool (Ahlers, 2012). The design of search engines is illustrated in Figure 2.3.



**Figure 2.3:** Design of Search Engine. **Source:** Chekuri, Goldwasser, Raghavan, and Upfal (1997)

Despite of the importance of SEM among marketers and businesses, conducted studies on SEM as a marketing tool is limited. There are only two types of studies conducted on SEM: i) The one that deals with the ideal design of keywords and possible enhancements (Edelman *et al.* 2016, Feng, 2018, and Mullen and Daniels, 2011) or ii) The one that examines bidding performance in keywords (Edelman and Ostrovsky 2017; Tung, Yuan, and Tsai, 2019, Alizadeh and Pourashraf, 2015; and Waheed and Yang, 2017). This reflects a gap in the context of E-Marketing and E-Marketing in distribution industry in particular. To cover such a gap there is a need to conduct research studies to explore the different features related to search engine marketing adoption and adoption by distribution firms as well as the influence of this adoption on distribution firm’s marketing performance.

### 2.4.1.3 Intranet Marketing

An intranet is defined as a private business network that is secured from getting accessed from public and externals and is only reachable via the institute and organisations’ members. Many firms use an intranet network to transfer information, share private data, and facilitate their discussions (Chaffey, Hemphill, and Edmundson-Bird, 2019). The Intranet environment is owned by the organisation and is not available from the internet at large. Business and individuals when discussing about intranet network, often confuse it with internet. Although there are many similarities between internet and intranet, there are differences as the most

significant one is that the needed facilities to develop the intranet and internal organisation connections and data secure through an intranet network (Park, Park, and Heo, 2018). Within this field, whilst the internet is available to the global WWW, the intranet is a private network implementing internally within the organisation. Although both Internet and Intranet deploy the same elements such as: e-mail, WWW standards, there are three key differences: 1) An intranet network is an inaccessible and private system and only authorized users of the network be able to get the admission; 2) Within intranet, users can access to internet while external internet users won't be able to get access into the intranet; and 3) It can be run without being needed to an internet connectivity or link (Mohammed, 2015).

The most popular Intranet tool is internal company e-mail, as well as other tools such as: web dissemination of the firm documents, links to get access to web database links which give authorization to users to have access to organisation data, archives, newsletters, prices, data in regard of competitors, goods/services, and customers' service data (Underwood, 2017). Overall, intranet network is not only a medium for sharing information with staffs but also a protective method for intellectual property of the organisation. This study discusses that an intranet network can be a major marketing tool for a firm. Because it is a valuable and beneficial techniques for employees' connection, and it can support the firm to enhance marketing performance through improving the levels of management in the marketing department. It is also a very beneficial medium in managing internal marketing that is useful to overcome any refusal to change in the company by notifying and including all the employees, of new plan and strategies. Within this method, firm's staffs are more likely to comprehend and be devoted of the value proposition of the firm and its trademarks. This allows distribution firms to understand their full marketing potential.

With regard to the adoption of Intranet Marketing by distribution firms, after reviewing the literature, it was found that, there is no single study that has been conducted to explore the adoption and usage of intranet marketing by distribution firms. Furthermore, after reviewing the literature, the researcher failed to find any research that investigated or tested the impact of intranet marketing adoption and implementation by distribution firms on the marketing performance of these organisations. This reflects a research gap in the context of E-Marketing. To cover this gap, there is a great necessity to conduct study to examine the different elements related to intranet marketing adoption and implementation by distribution firms as well as the impact of such adoption and implementation on distribution firms' marketing performance.

#### 2.4.1.4 Mobile Marketing

Mobile Marketing is a latest form of E-Marketing based on the explosive development of mobile technology (especially popular in emerging countries such as Iran). Mobile Marketing is one of the E-Marketing functions that is broadly measured to be one of the most profitable facilities that can be effectually brought over the mobile device (e.g., Lamarre *et al.*, 2012; Hsu, 2014; and Maduku, Mpinganjira, and Duh, 2016). According to Shankar and Venkatesh, Hofacker, and Naik (2010) “*Mobile Marketing is defined as the two-way or multi-way communication and advertising of an offer amongst an organisation and its customers via mobile means device, or technology*”. Maduku (2016) defines, Mobile Marketing as a set of marketing practices that deploy wireless mobile and networks to generate modified and collaborative communication between a company and the targeted audiences that lead to value creation for both sides. Mobile marketing can be conducted through text messaging (SMS), WAP (Wireless Application Protocol), integrate content, Mobile tele-marketing, Mobile broadcast promotion, cell phone sponsorships, viral marketing, interactive voice response, and geo-targeting.

In Iran, according to the latest statistics by Tasnim in 2019, 156 million sim cards were handed to people by the mobile operators that 85 millions of them are active. Moreover, according to reports by the Ministry of Information and Communications Technology of Iran statistics (2019), Iran has the highest mobile penetration in Middle East with the rate of 74.6 per cent by the end of 2019. There are over 53 million people connected to the internet through cell phone. Furthermore, there are another 11 million users of the internet through tablet connections via data sim cards. Statistics suggest that the number of mobile users in 2019 increased by 53 per cent in comparison with 2017 (Techrasa, 2020, and Newzoo,2019). One of the important reasons of this sudden growth is that smart phones have become replaced and increasingly deployed as a marketing tool. It enables the data and information to be sent at the same time to various groups of individuals and customers rapidly and easily via text messages or social media applications or even e-mail from phones, making Mobile Marketing a growing popular E-Marketing channel. Furthermore, the development and evolution of Third Generation (3G), (4G), and recently (5G) mobile phones, had directed to greater and speedy connections, Wi-Fi connectivity and the rise of smart mobile Internet browsing by individuals globally (Fritz, Sohn, and Seegebarth, 2017).

There are some benefits of conducting Mobile Marketing which is:

- It is unique tool with high potential of interactivity that in fact enables firms and businesses for adoptive customer interaction and operative productivity, potentially enhancing the efficiency and value of their marketing communications campaigns (Ström *et al.*, 2014).
- It is a powerful E-Marketing tool that distribution firms and retailers can adopt to re-building the brand and brand relationships, lead to a greater brand awareness, attitude, relations, customer loyalty, and change in purchase behaviour of customers (Constantinou, Papazafeiropoulou, and Vendelo, 2017).
- Mobile Marketing also has the potential to enhance customers perceived of service quality, value, and customer satisfaction (Hofacker *et al.*, 2016).
- Nearly all firms' clients will carry mobile phones with them and for most of the time they will be accessible and have a chance to be effectual for urgent time situations (Shankar, 2016).
- Mobile Marketing provides firms with the ability to deploy both text messages and multimedia marketing messages that can fulfil requirements of the organisation's customers and suppliers and provide a significant marketing tool (Tong, Luo, and Xu, 2020).

There is no way of slowing down of the growth of mobile marketing adoption particularly in developed countries as mobile devices nowadays shifted from smart phone features to tablets and smart watches. These emerging technologies simulate the businesses to shift into such marketing tool and to invest more on that if they prove its effectiveness. This many businesses and in particular distribution firms are affected by mobile and mobile marketing tools. With respects to the adoption of Mobile Marketing by distribution firms, based on the literature, the research found, that there is no particular study that has been conducted to explore the adoption of Mobile Marketing by distribution firms. Furthermore, the extant review of the literature failed to find any reports that assessed or examined the impact of Mobile Marketing adoption by distribution firms on the marketing performance of such organisations. Therefore, this study develops the literature review to the wider concepts of M-Commerce (Mobile Commerce), E-Commerce, E-Business and to include firms in other industries and sectors. Of the four studies identified through this extension Maduku, Mpinganjira, and Duh (2016), Fern, Ling, and Qing

(2016), Eneizan, Wahab, and Wahab (2016), and Andrews *et al.* (2016). Only two studies have studied or investigated Mobile Marketing adoption (Fern, Ling, and Qing, 2016; and Maduku, Mpinganjira, and Duh, 2016). Moreover, no single study has tested the impact of Mobile Marketing adoption on the marketing performance of these firms. This shows a gap in the field of E-Marketing at large and E-Marketing in distribution firms in particular. To cover this gap, there is an essential need to conduct research to explore the different elements related to Mobile Marketing adoption by distribution firms as well as its impact on distribution firms marketing performance.

#### **2.4.1.5 Social Media Marketing**

Adoption of the internet, social media, mobile device, and many other digital technologies has become part people's lives. Social media marketing is an essential component of 21<sup>st</sup> century's businesses. Sehar, Ashraf, and Azam (2019) define social media marketing (SMM), as a method of E-Marketing that includes making and sharing information on social media platforms that help firms to reach their marketing goals. Social media marketing comprises of activities such as: posting information in forms of text and image, videos, and other content that attract audiences' attention, as well as paid SM advertising. "*Social Media Marketing is both hardware and software technological innovation (Web 2.0) which facilitates creative online users' inexpensive content creation, interaction, and interoperability* (Berthon *et al.*, 2012)". Understanding the important role of social media in the field of marketing is necessary for both academics and practitioners (Kumar *et al.*, 2016; and Schultz and Peltier, 2013).

Social media regularly feeds into finding of new contents and also useful in making links that in turn beneficial for search engine optimising efforts. Many individuals also execute searches at social media platforms to find new contents (Naylor, Lamberton, and West, 2016). Social Media Marketing can support search engines with several goals such as: enhancement of website traffic and brand awareness, building conversions, brand identity creation, improvement in communication and collaboration with targeted audiences (Tuten and Solomon, 2015). Not only search engine marketing tools are useful for managing social media networks but also Mobile Marketing tools are beneficial for social media marketing due to their web surfing capabilities that allows customers an immediate access to social media platforms (Alghizzawi, 2019). Mobile devices have changed the path to buying process by giving customers, the accessibility to price and product information *at any time* (Spillecke and Perrey,

2015). This is while, the customers have allowed businesses to regularly update and inform them of the offers and new products. 91 per cent of all social media consumers access to this platform via mobile means. Similarly, approximately 80 per cent of “Total Time Spent” on this platform appears on mobile devices (Lyfemarketing, 2018).

Social media platforms can provide marketers and practitioners with notable opportunities to reach to customers through their social networks and to strengthen the personal relationships with customers (Tuten and Solomon, 2015). The nature of social media as a platform for customers to connect and communicate with and to influence them, has a significant impact on brand, and it makes greater response rates and customer engagement than traditional marketing techniques that only focus organisation and consumer relationship (Wang and Kim, 2017). Nearly 60 percent of online customers contribute through a “self-created content sharing” method (Tsai and Men, 2013). This enables customers to cooperate with business firms and authorize them to have an active role in co-creation of their capabilities (Kevin *et al.*, 2014). As owner/managers become more contented and active with social media networks and deal with it as part of their combined marketing strategies, indeed they turned their attention to the return on investment (ROI) and in what ways it can improve the marketing performance of the firm (Cheung *et al.*, 2019).

According to (InternetWorldStats, 2020) there are 3.5 billion social media users globally, and this number is constantly increasing that represents about 45 percent of the world’s current population. According to Buffer (2019), 73 percent of marketers confirmed that their businesses through social media marketing have been “very effective” for their corporate. This study discusses that social media is an effective tool for cost reduction, better customer services and relationships, ordering, buying, and distribution as well as making good business relationships. Therefore, social media has a great potential to improve marketing activities as well as performance of distribution firms.

Most of the studies on social media marketing focus on some specific issues (e.g., Customers’ purchase behavior (Relling *et al.*, 2016), customer relationship management (Trainor, Andzulis, Rapp, and Agnihotri, 2014), brand and innovation management (Asmussen, *et al.*, 2013; Gebauer *et al.*, 2013). Whilst these studies point on developments in particular area of social media in marketing and management perspectives, regarding the adoption of social

media marketing by distribution firms, it was found that there is no single study has been conducted to investigate the adoption social media Marketing by distribution firms. Furthermore, the review of the extant literature failed to find any studies that observed or investigated the impact of social media marketing adoption and by distribution firms on the marketing performance of such companies. Therefore, this study enlarges the review to the wider concepts and to include other industries and scopes. There are eight studies identified through this extension, (Cheung *et al.*, 2019; Tuten and Solomon, 2015; Alghizzawi, 2019; Naylor, Lamberton, and West, 2016; Ahmad, Ahmad, and Bakar, 2018; Gallagher and Ransbotham, 2010; Sehar, Ashraf, and Azam, 2019; and Salam, Iskandar, Ibrahim, and Farooq, 2019) that studied and examined social media marketing adoption and its influencing factors. Furthermore, out of the eight studies, only one of them Ahmad, Ahmad, and Bakar (2018), focused on the impact of social media marketing adoption on the marketing performance. However, no single study found that investigated or examined the adoption of social media marketing and its impact on marketing performance in distribution sector after this extension. This reflects a gap in the field of E-Marketing in general and E-Marketing in distribution sector in particular. To cover such a gap there is a great need to conduct research studies to investigate the different elements related to social media marketing adoption and by distribution firms as well as the impact of this adoption on distribution firms marketing performance.

#### **2.4.2 Conceptualisation of E-Marketing (Differentiation of the Concept of E-Commerce, E-Business and E-Marketing)**

The review of the extant literature has exposed that one of the main difficulties for development of E-Marketing potential is the lack of a clear conceptualisation of E-Marketing purpose and meaning. Most of scholars and academics within the context misuse the term E-Marketing and are using the terms E-business, E-Commerce interchangeably as if they are alike or have the equal meaning, which is incorrect. For instance, E-Commerce is a wider context in scope than E-Marketing as it refers not only to digital means like the Web, e-mail and wireless, etc. but also comprises of e-customer relationship management systems and the managing the digital customer information, buying and selling online without any interaction with the organization or the customer, and etc. In contrast, E-business have a broader scope than E-Commerce. The differences between these terms will be demonstrated and discussed in the next section of this chapter. As E-Marketing, has been discussed in the earlier section of the chapter, the following sections of the chapter will discuss the remaining terms.

### 2.4.2.1 Electronic Commerce (E-Commerce)

E-commerce applications were developed in early 1970s with the innovation of electronic funds transfers, that allowed funds to be transferred electronically, generally in large firms (Turban *et al.*, 2010). Then, in late 1970s and early 1980s, e-commerce was used within more businesses in the form of electronic data exchange (EDI) and electronic mail. This process reduced the time and cost of conducting businesses (Valarezo, Unda, Lopez, and Perez, 2019). This technology has been expanded during in late 1980s and early 1990s into a PC-based remote order structure and that was the time when the EDI was introduced to market to support businesses to exchange commercial documents and conduct business transactions through private networks. These transactions gradually being adopted by different firms in different scopes. The appearance of Internet-based e-commerce usage became popular in mid-1990s. Ever since then, it has been the fastest growing method of commerce (Turban *et al.*, 2010; and Kabanda and Brown, 2015).

There is no exact definition of e-commerce, since its definitions is differing according to its usage and explanation (Shemi and Procter, 2013). Turban *et al.* (2010) define e-commerce as *“the method of buying, selling, transferring, or exchanging products/Services and information by PC networks, generally Internet and intranets”*. Chaffey *et al.*, (2016, P: 676) define e-commerce as *“exchanges of all electronically mediated information between the firm and its external stakeholders”* which means that e-commerce involves more than buying and selling over the Internet and involves the exchanges of all financial and informational between the firm and any other parties. Furthermore, Gatautis and Neverauskas (2005), define it as a set of all financial, commercial, and account nexus, related to internal and international performance, which is sustained through this modern communication mean.

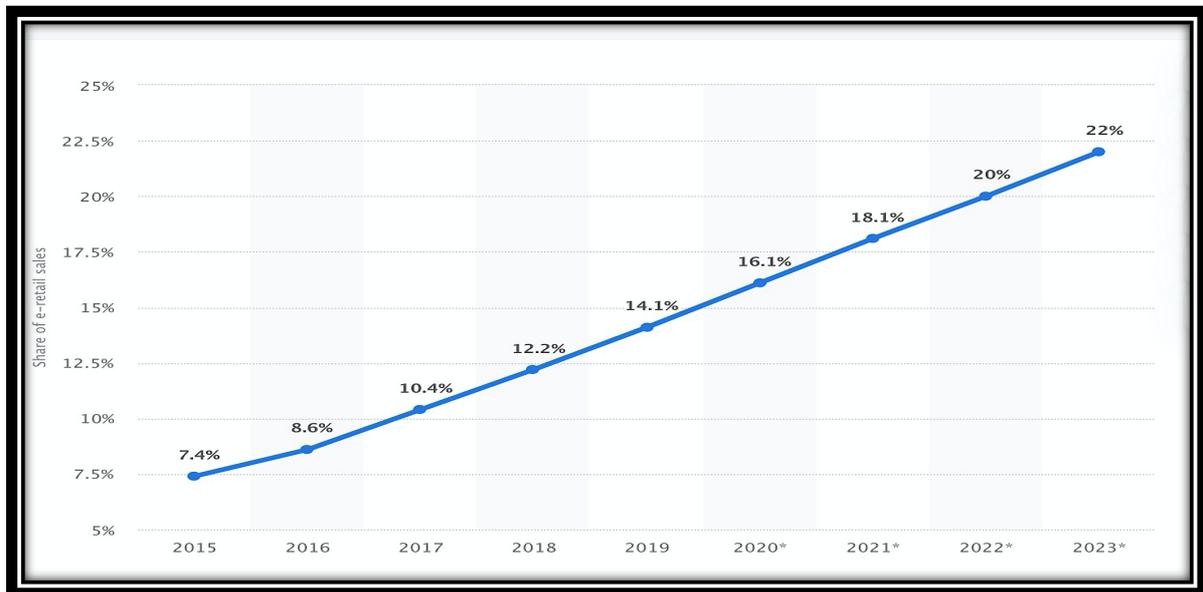
Kalakota and Whinston (1997) described e-commerce tool from several perspectives which each is related to the business marketer: 1) from a communication perspective: it is concerned with the delivery of data, products/services, and payments over electronic means; 2) from a business perspective: is the application of technology in all business transactions; 3) from a service perspective: is a tool that reflects the desire of the customers/managers to reduce the delivery costs which in fact is improvement in the service quality and customer satisfaction ; and 4) from an online perspective: provides a medium for buying and selling of products and data. Tagliavini *et al.* (2001) assert that any financial activity directed through the internet is called e-commerce. Clarke (2001) In more detail, expanded the essentials of e-commerce as:

*“help services for interchange, internal e-mails, catalogues, trading support techniques for merchandises, goods, and services, controlling the information, and numerical reporting structures”.*

Although there are various definitions on e-commerce, from the definitions above, it can be perceived that the use of ICT, especially internet technology, is a key factor of e-commerce and the main purpose of the adoption is to facilitate the information exchange and conducting transactions. According to Kabanda (2017), the conversion of firms from traditional marketing to electronic commerce, depends on which stage of digitisation the products or services been sold, the procedure, and the delivery techniques. They (ibid) assert that, if the digital component is found in any of the stages, then it can be considered as partial e-commerce, however if all the processes are online, then it is considered as pure e-commerce (Kabanda, 2017; and Rahayu and Day, 2015). However, in the recent definition by Eurostat (2018) and INE (2018) the standard definition is the order placement of products/services through internet, this excludes the orders through manually entered e-mails or text messages. E-payments or delivery are not compulsory for an e-commerce transaction. Just purchases completed for personal purposes are considered.

In developing countries, a common thread amongst scholars is that e-commerce is a method of new technology innovation in which organisations and customers interrelate electronically to achieve to one or more of the subsequent functionalities subject on their resources and limitations: 1) connections, for example delivering data, goods/services, or payments through Mobile/telephone, PC networks, or any other devices; 2) the use of technology concerning the computerization of commercial dealings and work-flow; 3) the congregation of the need of organisations, customers, and management to reduce costs while enhancing the value of goods and the speed of delivery; and 4) the provision of the competency of buying/selling goods and information online and other online services (Boateng *et al.*, 2008; and Erumi-Esin and Heeks, 2015). E-Commerce does play a main role in today’s marketing and business globally. As can be seen from Figure 2.4, in 2019, electronic retail sales accounted for 14.1 percentage of all retail sales globally. This figure is estimated to reach 22 percentage in 2023 (Statista, 2020). The fourth generation of e-commerce continues its efficacious journey through opportunities generated by improvements in global telecommunication and mobile technology. In the last decade, the 'digital economy' developed. This is based on an electronic products and services

constructed by electronic business throughout electronic commerce, this was where the e-business technology began its journey.



**Figure 2:4:** E-Commerce Share of total Global Retail Sales from 2015 to 2023. **Source:** Statista (2020)

#### 2.4.2.2 Electronic Business (E-Business)

The concept of Electronic Business (E-Business) has acquired a lot of attention from scholars and practitioners over the last two decades. Although one of the leading users of E-Business was IBM in 1997s (Aithal, 2015; and Chaffey *et al.*, 2016), currently many businesses all over the globe are trying to adopt E-Business in conducting their business activities. The term E-Business and its definition, as much as the term E-Commerce has generated discussions among scholars. However, there is a no single and sole definition of the term E-Business (Chong, Ooi, Bao, and Lin, 2014; Algarni *et al.*, 2015; and Luz Martín-Peña, 2018). Within this field, Otto, Barenfanger, and Steinbub (2015) define E-Business as: A wider definition of E-Commerce that includes not only buying and selling of customers, but also serving and cooperating with suppliers and business partners through electronic transactions. However, Chaffey *et al.* (2016) define electronic business as:” *all electronically mediated information exchanges, both within an organisation and with external stakeholders, supporting the range of business processes*” (Chaffey *et al.*, 2016, P.676).

The IONOS (2019) defined E-Business as: “*The method of using digital data and communication technologies to support or update business processes from the planning to implementation*”. Furthermore, (Chaffey, Hemphill, and Edmundson-Bird, 2019) define E-

Business as: “*The business procedures of online stores or any other internet-based organisations*” (Chaffey, Hemphill, and Edmundson-Bird, 2019, P.45). Luz Martín-Peña, Díaz-Garrido, and Sánchez-López (2018) defined E-Business as: “*The utilisation of electronic mediums to conduct a firm’s business both and externally*”. And finally, Sudrajat (2016) defines it as: “*The handling of business through Internet*”.

Sudrajat (2016) also discusses that the “e” term will soon be eliminated, and the term e-business will be business as it comes to be normally understood. As a result of this computerisation, numerous individual’s responsibility is eliminated from processes such as unnecessary involvement and internal reusing of e-business information. This is in accordance with the origins of the term of E-Business.

By outlining the first renowned description of Electronic Business suggested by IBM in 1997, it was found that the term E-Business described as: “*The conversion of core organization’s business procedures via the adoption of Internet tools*” (IBM, 2009, cited in El-Gohary,2009). Chaffey *et al.*, (2016) assert that the fundamental business routes signified to the Electronic Business definition by IBM as: The key firms’ business process in any company and organisation (e.g., R & D, Management and business, marketing, manufacture production and logistics). Thus, E-business comprises of three technological enablers: Internet, Intranet and Extranet. These enablers together with PC or Laptop allow companies to be connected nationally and internationally with organisation and employees in branches all over the globe, supplier/ customers, and business partners.

## Conclusion

The review of the extant literature reveals that one of the main hindrances in the literature is the indistinct approaches, when dealing with the term and description of E-Marketing as well as E-Commerce and E-Business. In this context, most of the scholars within the context misuse the word E-Business, the majority of academics are deploying the terms: E-Commerce and E-Business equally or dissimilar wording for the similar meaning, which is not correct since these concepts are different. For majority of scholars, the word E-Business is normally considered as the application of IT into the business developments. Through review of the relevant literature, the researcher perceived that, definitions of E-Marketing differ according to each author's point of view, background, and specialisation.

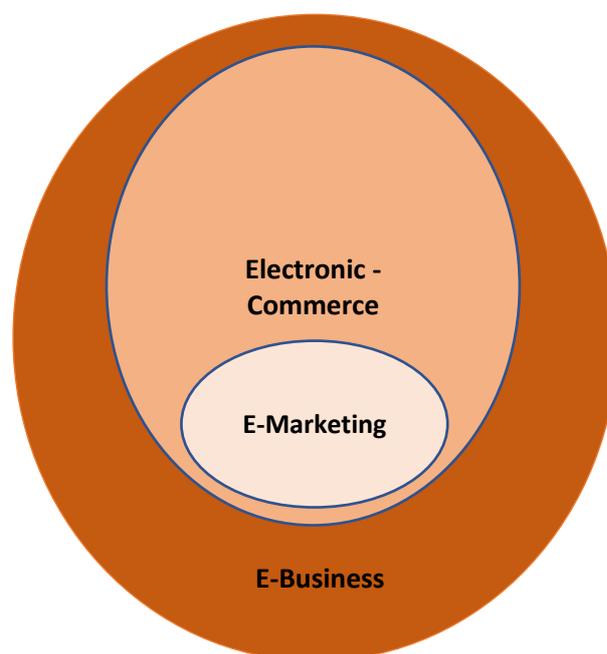
This study discusses (based on the several meanings for E-Commerce and E-Business demonstrated and argued in this chapter) that the term of E-Business drives beyond the limited understanding related with the concept E-Commerce. In this perspective, E-Commerce usually counts as the method of buying and selling goods, services, and data through the deployment of the Internet and PC networks (Chaffey *et al.*, 2016; Kabanda and Brown, 2015; Kabanda, 2017; Rahayu and Day, 2015; and Turban *et al.*, 2010). Furthermore, based on the discussions of Hisrich and Ramadani (2017), E-Commerce mainly emphasizes on the firm customers whereas E-Business develops the connectivity of the business not only to includes its customers but also the firm, suppliers, employees, and business partners.

Consequently, the terms, E-Commerce and E-Business are not only two dissimilar concepts but also the term E-Commerce is a subsection of E-Business, which is in line with the findings of Nof, *et al.* (2015); Popescu (2015); Algarni *et al.* (2015); Chaffey *et al.*, (2016), Hisrich and Ramadani (2017), Kabanda (2017) and Turban *et al.* (2010). Table 2.2 demonstrates various similarities and differences between these two concepts according to both the several descriptions as well as the former argument in this chapter.

**Table 2.2:** Differences and Similarities between Electronic Commerce and Electronic Business

|                     |  |   |
|---------------------|--|---|
| <b>Similarities</b> | <ul style="list-style-type: none"> <li>- Both terms are dependent on web technology.</li> <li>- Both terms combined Information Technology into firms' business process.</li> <li>- Both terms purpose to enhance Efficiency and develop productivity of the firms.</li> </ul> |   |
| <b>Differences</b>  | <b>Electronic Commerce</b>   | <b>Electronic Business</b>  |
|                     | <ul style="list-style-type: none"> <li>- Mainly emphasizes on the firms' customers.</li> </ul>   | <ul style="list-style-type: none"> <li>- Develops the connectivity of the company to involve not only the customers but also the firm's suppliers, employees, and business partners.</li> </ul>   |
|                     | <ul style="list-style-type: none"> <li>- Normally relates to the procedure of buying and selling goods/ services and information through the deployment of the Internet and PC/mobile networks</li> </ul>  | <ul style="list-style-type: none"> <li>- Usually relates to all the main business procedures within the corporation (e.g., R &amp; D, Business and Management, marketing, manufacture, logistics, and distribution).</li> </ul>   |
|                     | <ul style="list-style-type: none"> <li>- Depends generally on web technology</li> </ul>  | <ul style="list-style-type: none"> <li>- Technology used is usually more developed than that one deployed in Electronic Commerce. The technology depends on network, Material Requirements Planning (MRP), Customer Relationship Management (CRM), Enterprise Resource Planning systems (ERP).</li> </ul> |

By relying on the prior argument, it is obvious that E-Business, E-Commerce, and E-Marketing are not similar or a dissimilar wording for the similar meaning as perceived in the literature, where there is a distorting of the difference between the terms. Within this context, E-Marketing indicates not only to digital channels (e.g., web page, e-mail, and wireless channels), but also contains managing the customers' digital information, Mobile Marketing, Intranet Marketing, social media pages, optimisation of the web pages and social media pages for search engines, and electronic customer relationship management systems. In contrast, Electronic Commerce and Electronic Business have a broader scope than E-Marketing. These dissimilarities can be demonstrated in Figure 2.5.



**Figure 2.5:** Dissimilarities of E-Marketing, E-Commerce and E-Business. **Source:** Adopted from El-Gohary (2009)

## 2.5 E-Marketing in Developed and Developing Countries

This section presents the online performance of businesses worldwide. It starts with reviewing the digital divide and technology. Subsequently, it reviews previous academic research conducted to understand Internet and new technology adoption by firms in developed, emerging countries, Middle-Eastern Developing countries, and finally in Iran.

### 2.5.1 The Digital Divide and Technology Diffusion

*“A developed country is one that allows all its citizens to enjoy a free and healthy Life in a safe environment. And a genuinely developing country is one in which civil Society is able to insist, not only on material wellbeing, but on improving standards of Human rights and environmental protection as well”.*

*(Annan, 2000)*

New technology innovations as a result of Information Technology are continuing to develop. Conversely, IT technology has disseminated rapidly in developed countries but gradually in developing and emerging countries. This has led to a digital divide (Hinson and Sorensen, 2006). The concept 'digital divide' is linked with noticeable gaps or inequities in access to physical infrastructure (Campbell, 2001). Digital divides can be between developed and developing countries, or within the countries internally. Emerging countries have not yet grasped the phase of development of industrialisation. They are generally classified by a wide range of characteristics such as low living values, high rates of birth and illiteracy, low principles of democratic authorities and inadequate access to products/ services. Countries are classified into three categories according to Gross National Product (GNP): low, middle, and high income (World Bank, 2019). Furthermore, the World Bank categories the Middle Eastern countries as economies that are high in income. However, as noted by (Rabie,2013), although these countries are classified as high-income countries, they are far less advanced than developed countries such as UK, USA, Canada, And Australia which belong to the same group classification. Thus, the grouping of countries in terms of income does not precisely expose the level of ICT adoption with a country (El-Gohary, 2016). According to World Bank (2021) and InternetWorldStats (2021), there is a grave inconsistency in the technology infrastructures amongst developing and developed countries, demonstrated by statistics of Internet users and web servers, and telecommunication rates (World Bank, 2021). These gaps are obvious and can be seen in Table 2.3 the percentage of internet users in developed countries is mostly remains significantly higher than the percentage in emerging nations.

As illustrated in Table 2.3, people in developed nations have greater access to the internet technology. The United Arab Emirates, UK, and Canada, for instance, have internet penetration of around 100, and 93 percent respectively, whilst Iran has the internet penetration of 79 percentage (InternetWorldStats, 2021). It is specifically remarkable that internet penetration in developed countries reached above 70 percent in 2021 (WorldBank, 2021). Furthermore, the low frequency of Internet deployment can be attributable partly to the moderately high costs of fixed broadband tariffs. Many academics have explained that the slow deployment and diffusion of the Internet tools and its technologies in emerging nations is because of the high cost of accessibility and net connectivity (Rabie, 2013; Rahayu, 2015; Shemi,2012; and Molla and Licker, 2005a). Mobile devices in developing countries have faced Considerable growth rates and moderately high diffusion, like industrial countries. Dissimilarities of the number of

secure Internet are unambiguous in which emerging countries have less secured servers than developed countries. This made USA a lead in the world, in terms of the number of secure Internet servers (World Bank, 2021).

| Table 2.3: Digital Divide Between Developed and Developing Countries |                      |                      |              |                     |                    |                     |             |             |             |
|--|----------------------|----------------------|--------------|---------------------|--------------------|---------------------|-------------|-------------|-------------|
|  | Developing Countries |                      |              |                     | The Digital Divide | Developed countries |             |             |             |
|  | Iran                 | United Arab Emirates | Saudi Arabia | Turkey              |                    | UK                  | Canada      | Australia   | USA         |
| <b>Income Group Category<sup>a</sup></b>                             | Lower Middle Income  | High Income          | High Income  | Upper Middle Income |                    | High Income         | High Income | High Income | High Income |
| <b>Population by Ends 2021 (Millions)<sup>b</sup></b>                | 85,888,910           | 9,856,612            | 34,783,757   | 85,042,738          |                    | 68,207,116          | 38,067,903  | 25,788,215  | 332,129.757 |
| <b>Internet Users (% Population)<sup>b</sup></b>                     | 78.7                 | 100.0                | 91.6         | 81.3                |                    | 93.2                | 93.2        | 84.2        | 89.5        |
| <b>Secure Internet Servers<sup>c</sup></b>                           | 495                  | 1,484                | 162          | 4,335               |                    | 27,250              | 32,891      | 32,891      | 65,768      |
| <b>Personal Computers per 100 Population<sup>c</sup></b>             | 10.59                | 33.08                | 69.79        | 6.1                 |                    | 80.19               | 94.34       | 60.32       | 80.61       |
| <b>Fixed Broadband Tariffs (Monthly Fee \$)<sup>c</sup></b>          | 13.48                | 83.40                | 56.74        | 19.10               |                    | 14.12               | 37.50       | 46.70       | 16.32       |
| <b>Main Telephone Lines per 100 Population<sup>d</sup></b>           | 37                   | 24                   | 16           | 14                  |                    | 48                  | 37          | 32          | 34          |
| <b>Mobile Cellular Subscriptions per 100 Population<sup>d</sup></b>  | 130                  | 203.7                | 169.5        | 92.5                |                    | 129.6               | 84.6        | 87.6        | 103.1       |

Source: <sup>a</sup>World Bank (2021); <sup>b</sup>InternetWorldStats (2021); <sup>c</sup>World Economic Forum (2021); <sup>d</sup>UN databases (2021)

Overall, a considerable amount of difference exists in rates of internet adoption and usage between developed and developing countries. This inequality between industrialised and emerging countries in the accessibility to ICT tools and to the internet is already extensive and is growing wider (Campbell, 2001). Developing nations are differs in aspects such as level of IT skills, Management’s IT knowledge, etc. from developed countries. In developed countries, the innovation development is free from external force. However, in developing countries technology transfer is determined by internal factors as well as external factors.

As majority of technology innovations are designed and made in developed countries, they are biased in favor of developed nations’ social and cultural structures. This prejudice makes cultural and social hindrances for emerging nations in transferring the technology into practice (Hill *et al.*, 1998). In fact, such factors are an influential clarification for why developed countries, that attempt to execute technology transfer, are frequently challenged on their ideas,

philosophies, and standards about how technology "must" be applied in developing countries as the initiative's outcome in failure (Hill *et al.*, 1998).

**Table 2.4:** Extant Literature on E-Marketing Adoption by Country (or Countries) of Investigation

|  | Country (or Countries) of Investigation                                | Number of Articles                                    |
|--|--|---|
| <b>Developed Countries</b>                   | Australia  | 4   |
|  | Austria  | 2   |
|  | Belgium  | 1   |
|  | Canada   | 1   |
|  | Germany  | 1   |
|  | Greece   | 9   |
|  | Hong Kong  | 1   |
|  | Ireland  | 3   |
|  | Italy  | 1   |
|  | Netherland   | 1   |
|  | Norway   | 1   |
|  | Portugal   | 1   |
|  | Saudi Arabia   | 2   |
|  | Singapore  | 1   |
|  | Sri-Lanka  | 3   |
|  | Sweden   | 1   |
|  | United Kingdom   | 14  |
|  | United States  | 7   |
|  | Multi-countries investigation in developed countries                   | 13  |
|  |  | <b>Total literature in developed countries</b>        |
| <b>Emerging Countries</b>                    | Bangladesh   | 1   |
|  | Bosnia   | 1   |
|  | China  | 5   |
|  | Egypt  | 7   |
|  | Ethiopia   | 2   |
|  | Ghana  | 4   |
|  | India  | 5   |
|  | Indonesia  | 5   |
|  | Iran   | 24  |
|  | Iraq   | 2   |
|  | Jordan   | 7   |
|  | Kenya  | 8   |
|  | Libya  | 1   |
|  | Malaysia   | 9   |
|  | Morocco  | 1   |
|  | Nigeria  | 9   |
|  | Pakistan   | 7   |
|  | Palestine  | 2   |
|  | South Africa   | 5   |
|  | Taiwan   | 6   |
|  | Tanzania   | 2   |
|  | Thailand   | 2   |
|  | Turkey   | 4   |
|  | Vietnam  | 2   |
|  | Zambia   | 1   |
|  | Zimbawe  | 1   |
|  |  | Multi-countries investigation in developing countries |
|  | <b>Total literature in emerging countries</b>                          | <b>126</b>  |
| <b>Both Developed and Emerging Countries</b> | Multi-countries investigation in both developed and emerging countries | 10  |
|  | Not Stated in the Article  | 70  |
|  | <b>Total extant literature</b>   | <b>273</b>  |

The review of extant literature on E-Marketing adoption accounted for 67 articles (25 percent) out of 273 articles studied in developed countries, followed by 126 articles (46 percent) articles studied in developing and emerging countries, and ten articles (3 percent) studied concurrently

on both developed and developing countries in a single study (Refer to Table 2.4). As can be seen from the table, there is a large focus on the E-Marketing adoption of developing countries context.

### **2.5.2 E-Marketing in Developed Countries**

The Internet was developed primarily in the USA; and extended on its creativity; and most of the Internet contents initiated extensively from America (Greenstein, 2004). The early adoption and great Internet connection made positive response and strengthening the American advantage (Estrada, Wong, and Lanson, and Truong, 2017). According to Internet World Stats (2021), Internet penetration in Europe is more than half of the European population 87.7 percent. On the other hand, Asia (China and Japan) had the majority contribution on Internet penetration on the whole continent (59.3% and 93.8%) respectively. Poon and Swatman (1999) studies are debatably, one of the initial studies on technology adoption of developed countries and their research contributed to the understanding of utilisation of internet in business context focused on Australian firms. Ramsey and McCole (2005) researched the determinant factors of electronic business adoption of SME firms in New Zealand that impacts the current and future level of electronic business adoption. Mzee, Ogweno, and Irene (2015) studied the influencing factors of E-Marketing adoption in Greece. They (ibid) found that successful Greek firms were reliant upon firm's and environmental characteristics. E-Marketing and telecommunication infrastructure in developed countries, is advanced and more sophisticated than developing countries and the telephone line subscriptions are taking the lead. Developed countries offering E-Marketing, showed significant development in their own economies (Chatzoglou and Chatzoudes, 2016; and Raei and Raei, 2017). Despite a great proportion of online business contributed by industrialised countries such as the UK, USA, Japan, Canada, France, Italy, and Germany, and some advanced developing countries such as China, Malaysia, Taiwan, Thailand, and Japan, other emerging countries were shifting progressively into online-based markets with a significant impact (UNCTAD, 2021; and Shareef *et al* 2018). According to Karagozoglu and Lindell (2019), 50 percent of small enterprises, 88 percent of medium firms, and 98 percent of large organisations would take part in E-Marketing implementation in USA in 2020.

### 2.5.3 E-Marketing in Developing Countries

Prior studies of E-Marketing undertaken in developing and emerging countries context is increased as can be seen in Table 2.6. Furthermore, majority of businesses from developing nations are showed to market failures and 55rganizational issues when adopted the new technology innovations (Ciravegna *et al.*, 2014; and Barbour, 2018). New technology adoption in emerging countries is more challenging because of the high level of turbulence in firms and the internal and external environment (Themistocleous, Soja, and Cunha,2011; and Barbour, 2018). Some scholars to address these issues developed various models. For example, Radovic, Ghonima, and Schumacher (2017) developed conceptual model in Argentine, that firms initiate integrating and using a new technology innovation for a specific department and then distributing the adoption to other departments and branches. In overall, although there is a lavishness of developed model in Information Technology, there are fairly limited models developed for emerging countries, and those models developed for industrialised countries are not able to be efficiently deployed in emerging countries. This shows another knowledge gap and opportunity for studies that dealing with Information Technology adoption particularly in emerging countries (Barbour, 2018 and Radovic, Ghonima, and Schumacher, 2017).

Examples of study conducted in developing countries include study by Sheikh, Shahzad, and Ishaq (2017) who studied the development of e-marketing in B2B industry and its impact on the performance of firms in Pakistan. They (ibid) found that technology orientation, top management support significantly and positively impacts the firms' performance. Michael (2014) researched acceptance of electronic marketing strategies in emerging countries in Tanzanian SMEs. The (ibid) found that although electronic marketing is used by many organisations, only 27 percent of firms use the phenomenon for marketing purposes. Gopaul (2015) conducted a research in South Africa to understand the adoption of E-Marketing tools by SMEs and found electronic marketing as a key success element for firms, allowing them to compete on advanced level, despite of insufficient infrastructure and recourses. Barbour (2018) examined the impact of firm's size in the electronic service industry in developing countries. The results indicated that large organisations are influenced by external and organisational variables while SMEs are by only organization factors.

E-Marketing attained much interest around the globe due to its capabilities to enhance competency and productivity. However, there are many ambiguities about its value in emerging countries. The adoption of E-Marketing in Western where the technology has largely been

grown is very different from the adoption in developing countries. The level of success in adoption of new technology innovations depends on the level of usage by individuals and on the suitability between users and technology (Sannim, 2015) and this is one of the reasons that decelerated the process of adoption in developing countries. Nowadays, Majority of countries in developing nations are making considerable investment in developing, upgrading, and enhancing Information Technology infrastructure, making a strong tele-communication

substructure, and encouraging businesses, governments and many communities for Internet and E-Marketing adoption. This extensive deployment of ICT has enhanced the growth of E-Marketing in different parts of the globe, altering businesses, developing economic prosperity, and simplifying communication within the country and between countries (Shalhoub and Al Qasimi, 2006). E-Marketing perhaps has the potential to add a greater value to organisations and customers in developing countries than in developed countries. However, Majority of developing country-based businesses were unsuccessful and failed to gain the benefits proposed by contemporary information and communication technologies (Kshetri, 2007). Raei and Raei (2017) divided E-Marketing adoption barriers in developing countries into three categories: 1) economical, 2) cultural, and 3) legal. Whilst economic, cultural, and legal categories emphasis mostly on the environmental features, the cognitive element focuses on organisational and individual performances.

#### **2.5.4 E-Marketing in Middle-Eastern Countries**

The Middle Eastern region covers an immense geographic territory, spanning two continents of Asia and Africa. The Middle East usually comprises of the Arab countries including Iran and at some points, Turkey is considered as a part of the Middle East. Normally, Middle Eastern countries have an anciently cultural custom and are alike in various ways (e.g., religion, values, history, and language in some parts) (Hu *et al.*, 2010; Barbour, 2018; and Ghonima, and Schumacher, 2017). However, the Middle Eastern part of the world differs from other Asian parts, mainly in terms of wealth. In terms of wealth, majority of Middle Eastern countries with the exclusion of The Gulf Cooperation Council countries (GCC), do not have access to sufficient prosperity and resources. Moreover, the average GDP per capita of Middle Eastern countries exceeds the average of some advanced countries (Aladwani, 2003). Wealth restrictions enforce some grave growth challenges upon some Middle Eastern countries. For Instance, the economies Yemen (That has less capital and a bigger area for development) have

a propensity to spend less in national missions that needs excessive government spending, such as an advanced IT infrastructure (Aladwani, 2003 and Tan and Ludwig, 2016).

The Middle Eastern territory is playing an emergent role in the international economy and has increasingly grasped technology-enabled transformation and upgrading. Furthermore, Information Technology has become an essential feature in the Middle Eastern business land and its development efforts (Hu *et al.*, 2010 and Barbour, 2018). However, it is assumed that this province has received remarkably insufficient attention and as stated by Aladwani (2003), there is very diminutive observed data on E-Marketing and characteristics of the Internet in the developing Middle Eastern nations. This fact implies negative impact for those managers/Owners who are keen to use the internet to enter the Middle Eastern market (Aladwani, 2003 and Yang *et al.*, 2015).

Iran, and Saudi Arabia are the most progressive countries in the region measured by country E-Marketing parameters. The regional E-Marketing readiness statistics among Middle Eastern countries are indicated in Table 2.5 as well as their characteristics in terms of income category and population.



Figure 2.6: Internet Penetration in the Middle East in 2021. Source: InternetWorldStats (2021)

| Table 2.5: Benchmarking of Middle-East Countries E-Marketing Indicators |                     |                                     |  |                  |   |  |  |  |
|---|---------------------|-------------------------------------|--|------------------|---|--|--|--|
| Country   | Income Category     | Population (2021 Est.) <sup>a</sup> | Internet Penetration % Population <sup>b</sup> | Internet % Users | Secure Internet servers (2021) <sup>c</sup> | Personal computers (PC) per 100 population (2021) <sup>c</sup> | Internet Hosts per 1000 Population (2021) <sup>d</sup> | Price basket for Internet US\$/ 2021) <sup>a</sup> |
| Iran  | Upper-Middle income | 85,028,759                          | 79.5%  | 35.9%            | 495   | 10.59  | 197,804  | n/a  |
| Bahrain   | High income         | 1,748,296                           | 97.7%  | 0.9%             | 371   | 74.58  | 47,727   | 112.09   |
| Iraq  | Lower-Middle income | 41,179,350                          | 59.6%  | 13.0%            | 11  | 0.76   | 26   | n/a  |
| Jordan  | Lower-Middle income | 10,296,021                          | 84.7%  | 4.6%             | 103   | 7.48   | 69,473   | 127.82   |
| Kuwait  | High income         | 4,328,550                           | 98.3%  | 2.3 %            | 412   | 23.66  | 2,771  | 124.99   |
| Oman  | High income         | 5,223,375                           | 76.8%  | 2.1 %            | 157   | 16.88  | 14,531   | 127.40   |
| Lebanon   | Upper-Middle income | 6,769,146                           | 81.9%  | 2.9%             | 174   | 10.18  | 64,926   | 103.41   |
| Qatar   | High income         | 2,930,528                           | 104.3%   | 1.6%             | 397   | 15.69  | 897  | 139.25   |
| Saudi Arabia  | High income         | 35,340,683                          | 90.1%  | 16.9%            | 162   | 69.79  | 145,941  | 122.90   |
| United Arab Emirates  | High income         | 9,991,089                           | 100.9%   | 5.4%             | 1484  | 33.08  | 337,804  | n/a  |
| Yemen   | Lower-Middle income | 30,490,640                          | 25.9%  | 4.2%             | 4   | 2.77   | 33,206   | 147.53   |

Source: <sup>a</sup> World Bank (2021); <sup>b</sup> InternetWorldStats (2021); <sup>c</sup> World Economic Forum (2021); <sup>d</sup> World Fact book (2021).

Table 2.5 demonstrates that the three Middle Eastern countries rule the top connectivity statuses in the territory as revealed by the number of Internet users. On average, approximately 60 percent of the population of these three countries have Internet access compared to an average of other remaining countries. Bahrain and Iraq, however, control the lowest of the list of statuses of the population of this sub-region. Iran has the highest Internet users' rate in the Middle Eastern region with 36 percent of the population having access to the net. Saudi Arabia has the second highest penetration rate in the region with 17 percent. As can be seen in Figure 2.6 Middle Eastern countries has internet penetration of 67 percent has higher rate than rest of the world and world average (Internet World Stats, 2021). In terms of number of hosts per 1,000 people, Table 2.5 displays that the three countries (Saudi Arabia, United Arab Emirates, and Iran) lead the top rankings. On the other hand, Iraq and Qatar have the least number of hosts among all sub-regions of the Middle eastern countries. Finally, as shown Table 2.5 three Middle Eastern countries (the United Arab Emirates, Kuwait, and Iran) dominate the top of the rankings for secure servers per 1 million people in the whole region. On the other hand, Iraq

and Yemen dominate the bottom of the same list of rankings with less than 15 secure servers per 1 million people.

E-Marketing growth in Middle Eastern countries is remarkable. Many of the large and leading companies in the region have already initiated advanced ICT systems. In fact, most main players in the territory currently consider the E-Marketing and Intranet network as vital business process, and information-sharing tools for increasing efficiency and effectiveness, and the economic influence on trades, procurement and contracting are already enormous (El Rassi and Harfouch, 2016). On the other hand, People in Middle Eastern countries have not completely understood and accepted the deployment of new Internet technology innovations, this is because, the majority, see the internet and new technology innovation as a threat for their privacy and financial safety (Alrawabdeh *et al.* 2012; and El Rassi and Harfouch, 2016). Al Hosni *et al.* (2010) argue that a consideration of society and cultural background, religious views and the language would be more adequate to the users in the Middle East. Moreover, the preference of Middle eastern countries users is to adopt more face-to-face communications with customers and partners, due to their cultural background, and to establish more friendly relationship to make trust and consent (El Rassi and Harfouch, 2016). Therefore, developing a technology infrastructure that is far unconcerned from such forms of behavior and view could face some challenge and resistance. Despite of the high internet penetration in Middle Eastern countries, majority of organisations and business are still lagging many of developed countries in terms of adoption and implementation. This digital divide is because inadequate technological infrastructure and availability of high speed of internet, lack of financial resources for upgrading the infrastructure, low computer knowledge and skills, high costs for upgrading the equipment, and absence of IT rules and regulations (OECD, 2020; and UN,2021).

### **2.5.5 Internet in Iran**

Due to the presence of a great and advanced Information Technology infrastructure and increasing number of online users, the cost of getting ICT and telecommunications systems has been diminishing, leading to a faster deployment of these products. Such tendencies have resulted in an improved trust on IT within the Iranian economy by most Iranian organisations of all sizes. Iran's Internet industry is almost completely government-owned, ruled by the Telecommunication Company of Iran (TCI). In the first years of the 21<sup>st</sup> century, there was

a great surge of Internet usage in Iran. Moreover, fixed-line diffusion in 2004 was comparatively well-developed by local standards, standing at 24 lines per 100 people, which was more than Egypt and Saudi Arabia with 14 and 15 respectively (ICTNA,2021; and InternetWorldStats, 2021). As of 2002 there was an increasing trend on usage of internet raised from 3.8 percent internet penetration in 2002 to 69 per cent internet penetration in 2018 with over 56 million online users (Internet World Stats, 2021).

Despite of this increasing trend, as of 2006 in Iran, an average of 29% of web sites and social media platforms were blocked and as of 2013 nearly 50% of the top 50 visited web pages globally were blocked (ICTNA, 2021). When the Internet services provided by the Iranian government first introduced; it was moderately open. However, from 2006 onwards, Internet censorship increased gradually (Iran AdTech Overview, 2018). Every Internet Service provider required to be approved by both the TCI and the Ministry of Culture and Islamic Guidance and needed to execute via the “content-control software” for both websites and e-mails. Any resistance on implementing the policy would result to heavy fines and closing the website (ICTNA, 2021). Moreover, all Internet Service providers required to limit the download speeds to 128 kbit/s for all users in 2006. Despite the low internet speed, restrictions on ISPs and censorships, the number of internet users within country has increasing trend since 2002 with 3.8 percent has reached to 69.1 percent in 2018 (InternetWorld Stats, 20201). The number of internet users in Iran as of April 2021 has reached to near 68 million with 79% internet penetration in the first quarter of 2021 (Internet World Stats; 2021), making the country first in the Middle East in terms of number and internet penetration (IWS,2021, Statista, 2021, and Statistical Centre of Iran, 2021). However, despite of the high internet penetration and users in Iran in the region, still companies lag in embracing their businesses with such opportunities. The major causes of this low diffusion are the high costs, the high population’s lack of IT knowledge, cultural characteristics, governmental restrictions and censorships, and the popularity of foreign languages as the base of online communication.

### **2.5.6 Internet commercialisation in Iran**

Starting from 2000, the Iranian government gave permission to private organisations that were operating in the telecommunications sectors to work as private ISPs. Within this circumstance, the Internet community in Iran increased from around 23,000,000 users in 2008 (Statistical Centre of Iran 2021) to more than 68 million users. The government and the Iranian National

Telecommunication Company (Iran Telecom) began to improve an Internet support and gateway facility with reasonable prices to be deployed by the private sector ISP's. Iran's generated income from e-tools was around \$1 billion in March 2009 and was growing up to 60 percent annually (IRNA, 2008; and Press TV, 2016). In 2014, the income has reached \$300,000 per day. This was while in 2015, the dollar value from online marketing has reached \$17.4 billion and with the new "national information network", internet speed has improved significantly (Economist Intelligence Unit, 2015). As of 2016, around 600 cities got access to 3G networks and 200 cities to 4G network, this was while the rate of mobile phone penetration was 110.53% (Techrasa, 2018). Studies on e-marketing adoption was also conducted in Iran context. For example, Alavion and Allahyari (2012) conducted a study on electronic readiness of countryside ICT firms for agri-cultural electronic marketing in Iran using theory of planned behaviour. They (ibid) found that subjective norms and perceived behavioral control have significant impact on adoption and the impact of attitude is very small in private sector.

Rahimnia and Hassanzadeh (2013) investigated the impact of web page content and electronic trust on e-marketing success in Saffron trade in Iran. Based on the analysis of survey questionnaire of 100 samples, they (ibid) found that website content and e-trust have an impact on adoption as well as e-trust play a significant mediating role in the relationship between e-trust and electronic marketing efficiency in Iran context. Salavati and Hashim (2015) studied the website adoption and its impact on performance of hotels in Iran. Based on the survey questionnaire conducted with 75 Iranian hotels. They (ibid) found that Iranian hotels are at very initial stages of internet marketing adoption and the utilisation of electronic commerce is improbable in near future, as none of the research samples offers online reservations.

## **2.6 Distribution Industry**

The role of Distribution channels as an engine of economic development and as a link between producers/manufacturers and ultimate retailers/wholesalers/consumers has attracted significant attention for many years (e.g., AlGhamdi, 2014; and Bordonaba-Juste, Lucia-Palacios, and Polo-Redondo, 2012). Much of this attention originates from the belief that innovation, especially in the high-tech and IT contexts is critically dependent on a successful value chain and supply chain. Distribution channels are a vital part of the economic and social life of any country; they play a vital role in today's business world (Fayyaz and Azizinia, 2016). a healthy

distribution sector supports and brings a major contribution to the economic development of any country (AlGhamdi, 2014).

### **2.6.1 Importance of Distribution Sector**

Distribution industries, their methods, and strategies all around the globe have improved substantially within the last two decades (Mulky, 2013). Distribution firms are economically vital as they have always considerably contributed to providing potentials for economic development, employment, and as main vessel between the manufacture and retailers (Iran Business time, 2019). Nowadays with development of online marketing tools majority of the customers are deploying internet to gather information, buy products online and to contact the producer directly (Corrigan, 2019). Hence, distribution firms more than before require applying optimised logistics management, decrease delivery time, meet the changing requirements of customers/suppliers, and offer value-added services to attract and maintain their customers/suppliers (Fayyaz and Azizinia, 2016). With the development of new technology tools nowadays manufactures prefer to deal with customers directly rather than use intermediators as explained earlier. However, the importance of distribution channels is now acknowledged because of their important role in economic development and growth, and also their vital role as a linkage between the manufacture and customers despite the emergence of new technology tools (Zahiri *et al.*, 2018).

- From producers' perspectives, factories are developed to make products and distribute them in large quantities. Thus, they do not have interest in maintaining finished products of their whole collection of goods, with little keen in selling their goods to small number of customers who buy less than the normal amount that distributors buy (Fayyaz and Azizinia, 2016). In fact, manufactures do not want to experience the additional costs related to taking the orders, distributing small quantities, invoicing consumers, collecting payments, managing returns, and providing after sale services. As a result, manufactures attempt to prevent these problems by industrial distributors, for their supply chain (Mayer, 2014).
- From customers' (Retailers/Wholesalers) standpoints, while their product prerequisites are apparently routine, there is a question of, whether they are positioned adequately to place orders straight with all producers (Mulky, 2013). Moreover, while most producers have among five and ten manufacture facilities and depots, a distribution channel can contain about 3,000 sites that not only transmit inventory but are also operated with service staffs

and experts (Mayer, 2014). This great network allows locations to be closer to consumers, offering them with not only their necessities, but also the help they deserve.

- A distributor and intermediary able to observe usage outlines and advise with alternative products that may endure longer, while producers that are distributing directly would not take on such advisory role. Moreover, if an issue with a part were faced, the manufacturer be able to send a representative for a fee (Mayer, 2014). Furthermore, Distribution channels, diminish the freight, excess inventory, and solve the issues related to maintenance and production, therefore both suppliers and customers be able to get more for their money (Corrigan, 2019).

From the economic operators' perspectives, decisions on distribution channels are the most important since the selected channels directly impact all other marketing decisions. Likewise, decisions about distribution channels involve moderately long-term concerns to other organisations (Kotler, 2016, p. 530).

When it comes to the importance of distribution channels, for manufacturers/suppliers lies in the fact that buyers require to include their goods into their stores' variety. On the other hand, for merchants, particularly retailers, the total efficacy of the trading system is vital. Afterwards they can control the distribution channel. The importance of distribution channels for economy can particularly be seen in the system improvement and channel integration. Thus, this system in the USA, for example, cover 70 to 80 percent of consumers' market needs (Kotler, 2016, P:487). Economic strategy in a country can be adopted to impact the level of production and usage, in this sense, the proprietorship of distribution channels can be of vital significance for the growth of manufacture in the country (Segetlija, Mesarić, and Dujak, 2011). On the other hand, innovative types of distribution channels, particularly, the innovativeness through IT technologies provide means for preventing traditional structures and propose new opportunities for the growth of certain firms (Fayyaz and Azizinia, 2016).

Nowadays, new forms of distribution channels appear due to new methods of physical distribution through using Information Technology related tools, since they can have the opportunity to introduce and add new IT technological innovations to the supply chain and value chain (Pars Oghab, 2017). As a result, the development of distribution firms has been regarded as an important factor for the achievement of expansion objectives such as: economic development and the advancement of more independent associations within the supply chain (Abdolvand and Baghbanian. 2011). On the other hand, IT innovations could have impact on managerial attributes of distribution companies, involving them with factors such as:

motivations, aims, objectives, and activities of the owner/manager (Okwara and Emmanuel Nlemchukwu, 2019).

### **2.6.2 Distribution Firms Definition**

Operational definition for distribution channel is highly needed for academics, practitioners, and all distribution firms' stakeholders to improve a basis and common understanding for distribution firms particularly with the development of electronic distribution. The definition of distribution channel has changed in the past few years due to the dynamics of internet technology. In other words, since new internet technologies have revolutionised their approach wherein today businesses operate, far less employees are employed to implement organisational, marketing and communications responsibilities. Although distribution, as a concept, is quite simple, in practice it involves a different series of processes and disciplines including specified logistics, transportation, storage and warehousing, inventory controlling as well as right selection of channel members and partners. Regardless of the leading position held by distribution channels in today's economy, describing it has been a complex task. There is a little agreement on what describes a distribution channel since the term covers an extensive range of elements.

Distribution which is also called place as one of the elements of marketing mix indicates the channel of distribution, where goods move from the manufacture to the consumers. Thus, distribution refers to the chain of operations that transfer the products to finalise companies through specific paths to deliver to end users and distribution channel is a place where supports investors to search for appropriate organizations for investment (Okwara and Emmanuel Nlemchukwu,2019). Entrepreneurial enterprises normally deploy their own business linkages to introduce themselves as routs for companies (Kotler, Kartajaya, and Young, 2004). Channel members are consisting of intermediaries (that operate between manufactures and end users), wholesalers (that are link between the manufacture and retailors) and retailors (that are selling the products to consumers) (Farzin, 2009). The distribution, depending on the activity type of each business organisations, could be done directly from manufacture to consumers or indirectly through distribution channels (intermediaries, wholesalers, and/or retailors).

However, distribution firms are varied, depending on their customers, industrial market, and the number of involving aspects in the channel. The selection of distribution networks and channel members have a huge influence on the firm's policy (Vkbandar, 2016). Hence,

distribution channels require to be attentive in their decision-making process when choosing from three common distribution strategies namely: Intensive distribution strategy (which is related to low priced goods with high consumption), exclusive distribution strategy (which is related to luxury and high-priced goods), and selective distribution strategy (which is related to industrial goods) (Golchinfar and Bakhtaei, 2011). Moreover, based on the type of strategy the channel chooses, there are four types of decision that need to be taken in to account: 1) The degree of distribution by determining the number of retailers that delivers the goods; 2) Determining the types of support that need to acquire from distribution channels; 3) Selecting the appropriate business partners for the channel; and 4) Evaluating the relationships with distributor's business partner over time (Belz and Peattie, 2012). When marketers design a distribution network, need to consider customer needs analysis, determine the targeted network, and asses essential network options.

The main challenge in managing a distribution channel is to maintain channel members motivated, so they would be able to stay supportive, especially when market is too competitive and tough (Okwara and Emmanuel,2019). Enhancing the profitability and return on investment (ROI) of channel members and partners are the main drivers, that impact on the channel members' motivation and satisfaction as well as skilled channel managers that can achieve the firm to those purposes by making the right decisions (Fayyaz and Azizinia, 2016).

Academics have suggested that distribution firms in developed countries are likely to have more wholesalers and/or retailers, and less stages within the channel in comparison with distribution firms in developing countries (Olson and Granzin, 1992). Distribution organisations in industrialised markets are characterised by structured retail/wholesale chains, significant deployment of technology and information by channel members, knowledgeable customers, high internet penetration, complex logistics, and strong employment of rules and regulations (Hosseini, Nekoeizade, and Makhzanghadimi, 2012). However, in developing markets distribution firms are characterised by un-structured and independent retailing and wholesaling, smaller chains, more stages in the distribution chain, less deployment of technology and information by channel members; low internet penetration, growing logistics infrastructure, and poor execution of rules and policies. Moreover, developing markets have enormous rural markets and “base-of-pyramid (BOP)” that lead to more challenges for distribution firms (Bashokouh, Khademhosseini, Kord Naeij, and Azar, 2013).

With the development of Information Technology, it is nearly two decades since the emergence of new intermediary within the distribution channel known as electronic distribution which is distribution and communication with the chain through the internet. In e-distribution channels the movement of streams is in two scopes of electronic and physical. A separation between these two streams between depends on the nature of products, channel members and their technological capabilities and resources (Czubata, 2001, P.218). The main benefits of integrating internet within the channel chain is the direct and non-physical communication within the channel partners as well as the extensive market reach capabilities, less requirement for manpower, immediate order placement, reduction of overheads, more controlled chain, and accurate delivery time (Corrigan,2019). There are few previous studies that has focused on the new technology innovation in distribution context such as AlGhamdi, 2014; Bordonaba-Juste, Lucia-Palacios, and Polo-Redondo, 2012; Munyasi, 2015; Okwara and Emmanuel Nlemchukwu, 2019; Wang *et al.*, 2008 etc. (refer to Table 2.9). For example, AlGhamdi (2014) researched on the dissemination of the technology innovation adoption in Saudi Arabia and conducted a survey questionnaire on 150 retailers and found outstanding differences between the retailers as a mean of stage of development of their firms in term of factors related to the customers' perception and to organizational factors as well as the agreement among firms in different stages of adoption related to environmental attributes. Moreover, Lin and He (2014) investigated determinants factor models of IT adoption of the pharmaceutical distribution enterprise using TOE framework and TAM. They (ibid) found the relative advantage, compatibility, complexity, organisational characteristic, and external and internal support have a great impact on the firm's adoption. Based on the results of the extant literature review, there are only fourteen study found that conducted in E-Marketing adoption filed in distribution sector. however, this research found that there is no study conducted on the adoption of information technology innovation in distribution industry in Iran (Table 2.6). Table 2.6 shows a summary of the extant literature on Summary of the Previous Literature Review on Electronic Marketing From1993 to 2021.

**Table 2.6:** Previous studies on E-Marketing Adoption of Distribution Firms

| Author/ Year   | Focus of study  | Country scope                              |
|--|---|--|
| 1. Wang <i>et al.</i> , (2008)   | The distinction between the success and failure factors driving the implementation of e-channels of distribution: the case of Taiwan    | Taiwan                                     |
| 2. Lu and Julian (2007)  | The internet and export marketing performance   | Australian                                 |
| 3. Elliott and Sewry (2006)  | The influence of organisational factors in small tourism businesses on the success of Internet marketing: reviewed article              | South Africa                               |
| 4. Sparks (2005)   | Cultural influences on the development of marketing strategy for multinational retailers  | Multi-Countries (Developed and developing) |
| 5. Wang (2008)   | The E-tailer's performance, pricing ability and the e-market attributes   | China                                      |
| 6. Salem, El-Said, and Nabil (2013)  | Determinants and Effects of Applying Electronic Marketing in Alexandria Hotels: Current Status and Future Trends                        | Multi-Countries                            |
| 7. Okwara and Emmanuel Nlemchukwu (2019)   | Challenges of Distribution Services through Electronic Channels   | Nigeria                                    |
| 8. Mulky (2013)  | Distribution challenges and workable solutions  | India                                      |
| 9. Munyasi (2015)  | The impact of technology adoption on the pharmaceutical industry's distribution channels in Nairobi County, Kenya                       | Kenya                                      |
| 10. Zahiri, El-Gohary, and Hussain (2018)  | Internet marketing adoption by Iranian distribution industry: An attempt to understand the reality                                      | Iran                                       |
| 11. Bordonaba-Juste, Lucia-Palacios, and Polo-Redondo (2012)                       | Antecedents and consequences of e-business adoption for European retailers  | European Countries                         |
| 12. Lin and He (2014)  | Study on the pharmaceutical distribution enterprise IT adoption influencing factors model   | Not Stated in the Article                  |
| 13. Kovar, Burke, and Kovar (2000)   | Selling Webtrust: An exploratory examination of factors influencing consumers' decisions to use online distribution channels            | Not Stated in the Article                  |
| 14. AlGhamdi (2014)  | Diffusion of the adoption of online retailing in Saudi Arabia   | Saudi Arabia                               |
| 15. Jibril, A. B., Kwarteng, M. A., Pilik, M., Botha, E., and Osakwe, C. N. (2020) | Towards understanding the initial adoption of online retail stores in a low internet penetration context: An exploratory work in Ghana. | Ghana                                      |
| 16. Antwi, A. O., and Owusu-Agyeman, A. (2020)                                     | The Impact of Ecommerce Adoption On Logistics Companies.  | Ghana                                      |
| 17. Lorente-Martínez, J., Navío-Marco, J., and Rodrigo-Moya, B. (2020)             | Analysis of the adoption of customer facing InStore technologies in retail SMEs.  | N/A  |

Source: Developed by the Researcher

In conclusion, when designing a distribution network, the planner has to consider and determine the potential achievement of chain members in board terms. To sum up, all the prior discussed descriptions and classifications, are by no mean definite and there are many other similarly valuable descriptions that over time have not been measured directly within this chapter. But it is important to identify that the operating distribution channels' scope, country in which operates in, economic condition, and the legal consideration of the country. All

descriptions have had to be changed and improved over time due to the impact of new technologies on business practice. Accordingly, and due to the lack of a unique definition for distribution firms, this research will depend on the combination of physical and electronic distribution as the focus of the study in on the emerging countries where the distribution strategies are heavily depending on traditional and physical methods.

## **2.7 E-Marketing Adoption and Distribution Firms' Marketing Performance**

Early studies on IT adoption-performance relationship that conducted in the 1990s displayed indecisive results regarding this relationship, some scholars found a slightly negative or no correlation between IT adoption and business performance (e.g., Coviello *et al.*, 2006; El-Gohary, 2012), whereas some scholars found a positive correlation between Internet Technology investment and business performance (e.g., Tsiotsou and Vlachopoulou, 2011; Wu *et al.*, 2003; and Brodie *et al.*, 2007).

In the 2000s, many scholars found a positive correlation between IT investments and performance. For Instance, Stratopoulos and Dehning (2000) tried to find relationship between IT investment and performance by comparing the financial measures of firms that were considered as successful measures for companies. They (*ibid*) found that the financial performance (Profitability and efficiency measures) of adopted firms was more than the less adopted within the same industry. Moreover, Bharadwaj (2000) examined whether organisations with greater IT capabilities also had greater performance or not. In this research, firm performance was measured by: Return on Asset (ROA), Relative Market to Book Value, ROS, growth, and risk. The research found that organisations with greater IT capabilities established greater performance and lower cost than organisations within a controlled group. The outcome was also confirmed by Santhanam and Hartono (2003) where found that organisations in the IT leader displayed greater performance than other firms.

Similarly, Liang, You, and Liu (2010) found that the relationship between new technology adoption and firm performance can be described by an indirect model, in which the Information Technology resources can improve firm's capabilities, and then the capabilities can boost firm's performance. Furthermore, a study conducted by Ong and Chen (2013) and Ong and Chen (2014) found that organisations with greater IT abilities also have greater performance and value than their counterparts.

There are numerous prior studies have attempted connecting a particular IT investment, such as e-business and e-commerce, with performance. Dehning, Richardson, and Zmud (2007) studied the relationship between IT adoption of Supply Chain with financial performance measured by Return on Asset (ROA), Return on Sales (ROS) and total inventory turnover. They (ibid) found that IT implementation by business reduced the level of inventory, and there is a positive relationship between the adoption and business performance. The findings are in line with Byrd and Davidson (2003) and Vickery, Jayaram, Droge, and Calantone (2003) studies.

There were many studies found that adopted performance measures and studied on adoption-performance relationship (See Table 7.3 of Chapter Seven). Concerning the impact of E-Marketing adoption on the marketing performance of Distribution Firms, the review of the literature failed to find any study that has been conducted to examine the relationship between E-Marketing adoption and the marketing performance of distribution firms. Subsequently, this study expands the review of literature to the wider concepts of E-Commerce, E-Business of other industries in developing countries. 32 studies identified through this extension.

Five studies found positive relationship between E-Commerce and performance (Magno, Cassia, and Bruni, 2017; Rahayu, 2015; Adam, Mahadi, and Rahman, 2018; Chong, Man, and Kim, 2018; and Sheikh, Shahzad, and Ishak, 2017), two studies found a positive relationship between E-Business penetration and firm performance (Adam, Mahadi, and Rahman, 2018 ; Popa, Soto-Acosta, and Perez-Gonzalez, 2018), twenty studies (Qashou, 2017; Ali and Kaldeen, 2017; Chanthinok, Ussahawanitchakit, and Jhundra-indra, 2015; Chong, Man, and Kim, 2018; Al-Azzam, 2017; Shahzad, and Ishaq, 2017; El-Gohary, 2009; Iddris and Ibrahim, 2015; Tsiotsou and Vlachopoulou, 2011; Wu *et al.* , 2003; Brodie *et al.*, 2007; Lee and Tsai, 2005 ; Mathews *et al.*, 2019 ; Setiowat, 2015 ; Hussein, 2010; Bharadwaj *et al.*, 2013 ; Zhu and Kraemer, 2005 ; Tippins and Sohi, 2003, Wu *et al.*, 2006 ; and Brodie and Azam, 2014) found a positive relationship between E-Marketing penetration and firm performance, and five studies (Venkatraman and Zaheer, 1990 ; Uzoka, Shemi, and Seleka, 2007; Karakaya and Stahl, 2009; Warner, 1987; Coviello *et al.*, 2006) found a negative or no significant relationship between the IT adoption and marketing performance of the organisation.

For Instance, Adam, Mahadi, and Rahman, (2018), examines the impact of entrepreneurial orientation and organisational performance of e-business. Based on their findings there is a

positive relationship between entrepreneurial orientation and organisational performance as can be measured by organisational performance, business productivity, relationship development with employees and employee satisfaction. On the other hand, Magno, Cassia, and Bruni (2017) find that E-Commerce penetration increased among hotel, travel agencies, and tour operators in the period from 2014 to 2017. They also find a positive relationship between E-Commerce adoption and performance. Finally, Chong, Man, and Kim (2018) found a positive relationship between electronic marketing adoption and business performance of B2B Asian organisations.

The relationship of E-Marketing adoption-marketing performance remains vague. This is due to numerous empirical analysis outcomes and no consensus in previous findings. While some researchers found a positive relationship, some found a negative relationship. This could be related to dissimilarity in study backgrounds such as country scope, research group and industries. For example, Kuivalainen and Sundqvist (2007) study emphasised differences when reviewing different country contexts separately. Their study supported that firms in developed countries, produce superior sales and profit performance and creating increased efficiency.

On one hand, this reflects another gap in the field of E-Marketing in general and E-Marketing in distribution firms in particular. To cover such gap, it is essential to conduct research studies to examine the impact of E-Marketing adoption and usage on distribution firms marketing performance. On the other hand, this study differs from the other fourteen studies conducted. With regards to these studies, they mainly investigate the adoption of E-Commerce, E-Business, and E-Marketing in firms and their impact on performance in various business sectors which is different from the main focus of this study. Also, they focus on achievement performance and retention performance when examining this relationship which is completely different from the main aim of this study which investigate at distribution firms and purposes to examine the impact of E-Marketing adoption on marketing performance within these organisations.

## 2.8 Chapter Summary

According to the introduction provided in chapter one, this chapter presents the theoretical background related to the study, E-Marketing as a new marketing phenomenon and philosophy, distribution channels and Electronic Distribution as well as providing a comprehensive review of the relevant literature to E-Marketing and distribution industry. The discussion within the chapter initiated with the dilemma related to E-Marketing definition. The discussion demonstrated that there is no specific description for E-Marketing and that the description that will be deployed in this research is the one suggested by Strauss, Ansary, and Frost (2014) and Chaffey and Ellis-Chadwick (2016). Furthermore, the discussion demonstrated that this study would investigate the factors influencing the adoption of five main E-Marketing tools (namely Social Media Marketing, E-Mail Marketing, Search Engine Marketing, Mobile Marketing, and Intranet Marketing) by distribution firms and the impact of this adoption on distribution companies marketing performance.

Later, a preliminary argument about the Internet (as the main element of E-Marketing) was provided. Building on this introductory argument, the Internet, and its origins, deploying it in conducting marketing activities, its commercialisation, the emergence of Internet as marketing tool, E-Marketing tools and the current circumstances related to the Internet and E-Marketing in Developed, Developing, and Iran were addressed and discussed in detail to provide a sound base for the theoretical background associated with this study.

Based on the theoretical background of the study, and as a result of the scarcity of clarity related to the concept of E-Marketing in the literature, this chapter demonstrated the differences between the concepts of E-Marketing, E-Commerce and E-Business to make a field base to understand the difference of these concepts. In this context and according to the discussions in the chapter, it was established that E-Marketing, E-Business, and E-Commerce do not have the same meaning and are not equal in terms of definition, as incorrectly perceived within the literature. The discussion showed that E-Marketing is wider in scope since it signifies not only to digital mediums such as webpage, wireless means and e-mail, but also involves managing the digital customer information, Mobile Marketing, Intranet Marketing, Social Media Platforms, Search engine Marketing, Viral Marketing, Affiliate Marketing, and E-CRM. In contrast, Electronic Commerce and Electronic Business have a broader scope than Marketing.

Afterwards, the chapter illustrated the various E-Marketing tools and identified scarcities and gaps in the literature related to E-Marketing tools and distribution firms. In this context, study gaps were found in areas linked to factors influencing the adoption of E-Marketing (all the elements related to E-Marketing) by distribution firms in developed countries, emerging countries and in Iran as well as the impact of this adoption and implementation on distribution firms marketing performance.

Next the chapter explained the theoretical background related to distribution channels and its integration with internet, showing their importance and their characteristics, the importance of having a definition for distribution channels after the evolution of new technology and the dilemma related to having such a definition. The discussions demonstrated that there is no specific definition for distribution channels and that there are several factors that have been deployed to define what a distribution channel is after integrating with Information Technology.

Therefore, there is a great necessity to conduct research studies to examine the different aspects linked to these areas which in turn will cover these gaps. This study is concerned with covering these research gaps by determining the factors influencing the adoption of E-Marketing by distribution organisations as a first step towards examining the impact of such adoption on distribution firms marketing performance. In the following chapter the literature will be extended to comprise the different theories of Information Technology and new technology adoption to acquire a better understanding of their impact and potential for E-Marketing adoption in distribution firms.

## Chapter 3 E-Marketing Adoption: A Review on Information Technology Adoption Literature

*“Knowing is not understanding. There is a great difference between knowing and understanding: you can know a lot about something and not really understand it.”*

*(Charles Kettering)*

### 3.1 Introduction

Chapter two presented an in-depth investigation of E-Marketing and distribution firms as well as the extant review of literature and described the differentiations between the terms, E-Commerce, E-Business with E-Marketing. Based on this investigation the key purpose of chapter three is to identify the possible key variables that might have an influence on the adoption of E-Marketing by Distribution firms. The chapter begins by revising the different theories of new technology adoption within literature such as the Technological, Environmental, and Organisational Framework (TOE), Motivational Model, Technology Acceptance Model (TAM), Social Cognitive Theory (SCT), Institutional Theory (IT), Resource-Based View (RBV), Model of PC Utilisation, the Diffusion of Innovation (DOI), Theory of Planned Behaviour (TPB), Theory of Reasoned Action (TRA), Structuration theory (ST), The Percived E-Readiness Model (P-ERM), Hofstede's cultural dimensions theory , and the Decomposed Theory of Planned Behaviour model (DTPB) to develop a greater understanding of their impact and potential for marketing activities (namely, E-Marketing adoption) in distribution firms. The overall purpose is to identify the factors that might impact the adoption of E-Marketing by distribution firms and to demonstrate how this study relates to prior studies and theories within the context.

### 3.2 Theoretical Foundation and Models of Technology Adoption

In the past 30 years, Information Technology has standard a great research attention, both theoretically and empirically (Premkumar *et al.*, 1999). Although the grounds of adoption and diffusion of IT research were laid over a hundred years ago (Hultman, 2007), it was not until the second half of the twentieth century (the 1960s) that the actual experiential studies on adoption initiated (Rogers, 1995). The identification of factors that might facilitate the integration of internet into businesses has been a subject of rigorous discussion (Rahayu and Day, 2015; Sheikh, Shahzad, and Ishak, 2017; Aljowaidi, 2015; and Awa, Ojiabo, and Emecheta, 2015). While the adoption of different internet applications boosts the diffusion in different sectors, it is also a subject of interest for scholars. From the early 1990's, most of the

studies covered the marketing aim of the networks. Many scholars discussed the technical complexities of using the Internet (Bhimani, 2011; Cassettari, 2010; and Clemons *et al*, 2009) rather than the adoption of the Internet into business operations.

Unlike the new technological tools, that often seems to appear as a single occasion, the adoption or diffusion of new technology tools in a practical way, seems as a constant and rather slow process (Sheikh, Shahzad, and Ishak, 2017; Rahayu, 2015; and Shemi, 2012). Since it combines new technologies and marketing needs for each business, the understanding of this procedure can take long, and may be seen from a number of divergent viewpoints. However, there are various acknowledged theoretical frameworks that have been adopted by scholars and academics to examine the adoption and diffusion of IT and new technologies by firms and businesses (e.g., Sheikh, Shahzad, and Ishak, 2017; Aljowaidi, 2015; and Awa, Ojiabo, and Emecheta, 2015; Alsomali, 2011; and Rabie, 2013). These frameworks offer reliable discussions that allow managers and experts, as well as the academic community, to achieve a better understanding of the functions and potential of new technologies so they can be deployed in a more effectual way (Nikou and Economides, 2017; Quaddus and Hofmeyer, 2007; Tripopsakul, 2018; and Sameni and Khoshalhan, 2009). Furthermore, recent study into Information Technology adoption and utilisation has been inspired by the need to predict variables, that can direct to successful use in a marketing field (Idris, 2017, Hoque and Boateng, 2017; and Yeng *et al.*, 2015). However, E-Marketing is still a comparatively new term, specifically for distribution organisations that have restricted resources and can hardly afford to make risky investments. Thus, there is a necessity to have a much clearer understanding of E-Marketing issues as well as opportunities for distribution firms, and how such technologies can be deployed to carry out the marketing activities in a more effectual way than be dependence on traditional custom.

It is undisputable that E-Marketing has become a popular subject for academics since the internet was commercialised in the early 1990s. This new technology is a remarkable phenomenon to be studied because of the eight unique characteristics of: ubiquity, worldwide reach, widespread stander, productivity, interactivity, information-oriented, modified/customization, and social tool that make this tool unique and more powerful than other technologies (Laudon and Traver, 2014). Large number of studies have been conducted regarding this technology, and various theoretical models and frameworks have been applied

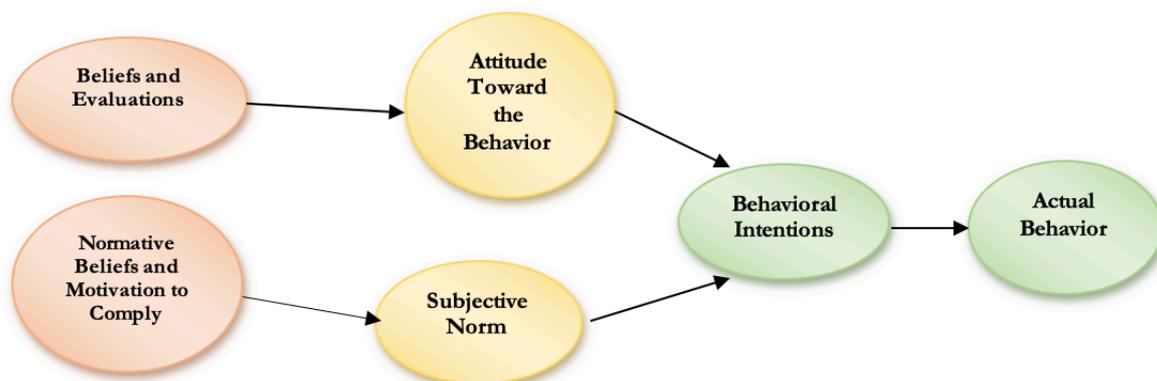
or developed to study this by the research community that are popular in investigating the influencing factors that facilitate or hinder the adoption and diffusion of IT innovations in firms. The adoption and diffusion of IT innovations has been studied since the early 1940s (e.g. Ryan and Gross, 1943) and has attained significant interest from, practitioners, industries, policy makers and academics in the social sciences. Furthermore, the body of knowledge that exists on Information technology innovation adoption and diffusion has been established on a set of theoretical frameworks from a range of disciplines such as social sciences, business, economics, and marketing (Gatignon and Robertson, 1989).

Prior studies on Information Technology adoption and diffusion have cited a great body of theories such as: Diffusion of Innovation Theory (DOI) (Rogers, 1995,2003), Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975), Technology Acceptance Model (TAM) (Davis, 1989), Technology- Organisation-Environment Framework (TOE) (Tornatzky and Fleischer, 1990), Theory of Planned Behaviour (TPB) (Ajzen, 1991), Decomposed Theory of Planned Behaviour model (DTPB) (Taylor and Todd, 1995), Social Cognitive Theory (Bandura,1977), Model of PC Utilisation (MPCU) (Thompson *et al.* 1991), etc. of all of these theories, the most commonly discussed and used is the DOI developed by Rogers (Hultman, 2007) that has been deployed as a general theory for the adoption and diffusion of new technologies. DOI is a multidisciplinary theory based on its use to numerous contexts such as marketing, business, human resources and in the study of IT adoption research (Mallat, 2007). TOE by Tornatzky and Fleischer (1990) is another frequently discussed generic framework used in examining the adoption of different new technology in organisations (e.g. Rahayu, 2015 and Rabie, 2013).

The descriptive influence of the new technology theories was verified empirically by many qualitative and quantitative researches to find variables that facilitate or hinder the adoption and diffusion (Shalhoub and Al Qasimi, 2006; Zhu *et al.*, 2006; Idris, 2017; and Thong, 1999). Moreover, it is considered to use different theories to explain different aspects of IT application rather than only a sole, unitary theory (Downs and Mohr, 1976; Shemi *et al.*, 2013; Khater, 2016; and Boateng, Adam, Okoe, and Anning-Dorson, 2016). This chapter will review various theories of new technology and then assess their potential for an analysis of E-Marketing practice. Since each theory has a different outlook of new technology, an amalgamation of essentials from each may offer a stronger model that might be of deployed for the analysis of E-Marketing in a distribution sector context.

### 3.2.1 Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975) / Theory of Planned Behaviour (TPB) (Ajzen, 1985)

The theory of reasoned action (TRA) developed by Fishbein and Ajzen (1975) and Ajzen and Fishbein, (1980) is one of the popular theories for measuring behavioural intention which explains the reasons for a behavioural intent and demonstrates the structures of the relationships. According to this theory, a person's behavior is greatly determined individual's behaviour is highly determined by their intention to make a behaviour, which is jointly affected by two factors namely: the attitude towards the behaviour (ATT) which is defined as "an individual's positive or negative feelings (assessment affect) about execution of the target behaviour" (Fishbein and Ajzen, 1975, P: 216), and subjective norm which is "the person's insight that most individuals who are important for him believe he must or must not do the behaviour as an enquiry" (Fishbein and Ajzen, 1975, P. 302). These factors lead to behavioural intention (BI) that describes the actual behaviour. The individual's attitude toward the behaviour is determined by their striking beliefs that resulted from their assessment about the outcomes of such behavior. On the other hand, the subjective norm is driven by "multiplicative function of his/her normative belief (Davis *et al.*, 1989, P.984). Fishbein and Ajzen (1975) explained the relationship between all determinant variables in Figure 3.1 below:



**Figure 3.1:** Theory of Reasoned Action (TRA) **Source:** Fishbein and Ajzen (1975, P. 16)

The theory is guided by the underlying basic belief that, individuals are quite rational and make use of all accessible information, either personal or social, before they act (Crawley and Coe, 1990). This theory has been widely used in earlier to test customers' behavioural intention as well as to state the reasons of the actual consumers' behaviour in numerous consumption-related subjects (Crawley and Coe, 1990; Bang *et al.*, 2000). The Theory of Reasoned Action has also been deployed in the information technology (IT) field as the basis for examining

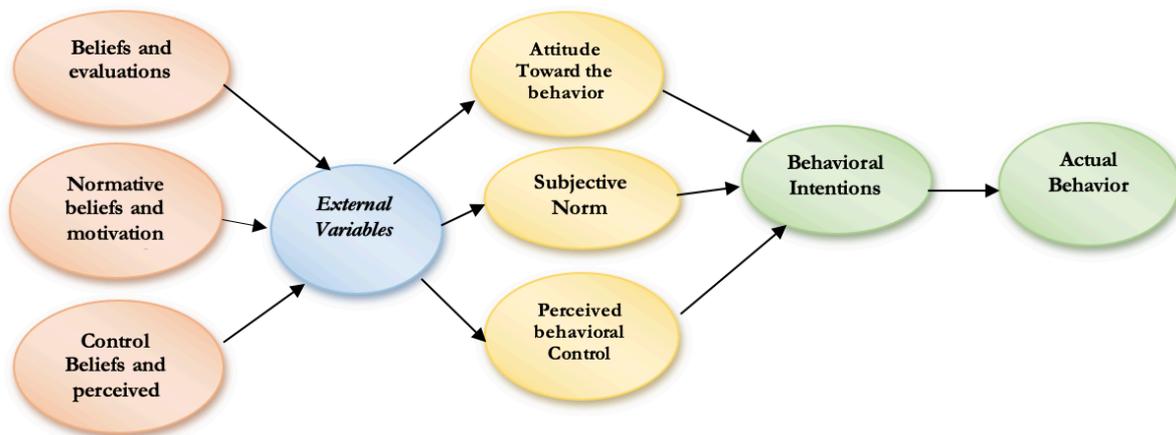
numerous technologies and has crossed a variety of fields, such as, E-Marketing E-Business, word processing and MS Windows (Davis *et al.*, 1989; Karahanna *et al.*, 1999); e-commerce (Vijayasarathy, 2004); and e-banking (Shih and Fang, 2006). From an Information System viewpoint, a helpful aspect of the theory is that attitude and subjective norms are posited as a mediator between the external variables and the intention to use new IT (Davis *et al.*, 1989).

Many findings have shown the applicability of the theory for examining peoples' behavioural intention and actual usage behaviour with regard to an IT innovation by exposing the significant outcomes of attitude towards intention (Davis *et al.*, 1989; Taylor and Todd, 1995; Crawley and Coe, 1990; Rhodes and Courneya, 2003; Rahayu and Day, 2015; and Azam, 2007) and subjective norms (Taylor and Todd, 1995, Venkatesh and Davis, 2008; Crawley and Coe, 1990; Awa, Ojiabo, and Emecheta, 2015; Rahayu and Day, 2015; Ramayah *et al.*, 2007) on behavioural intention. However, TRA theory is very general, and it is not designed at a particular behaviour (Davis *et al.*, 1989), thus this theory has been used extensively to a variety of study fields. Therefore, it has been criticised for several reasons.

For Instance, Ajzen (1991) stated that this model is incapable to cooperate with a condition in which users not under volitional control, such as habitual or impulsive behaviour. Since, such behaviour might not need logical reasoning to be tracked (Hale, Householder, and Greene, 2002). Also, they (ibid) found that, attitude toward behaviour and subjective norm in this theory are believed to impact the behaviour intention individually, the findings displayed that these two factors are highly correlated, thus that the model above was questioned (Awa, Ojiabo, and Emecheta, 2015; Yousafzai, Foxall, and Pallister, 2010; Davies, Foxall, and Pallister, 2002). Due to the criticisms of this model on indistinguishable relationships the two factors as well as the model's assumption that behavioural intention caused in actual behaviour without limitations (Truong, 2009) the TRA was reviewed and modified, to expansively justify usage of behaviour by adding more factors as predecessors of behavioural intention. The theory of planned behaviour (TPB) (Ajzen, 1991; 1988; 1985; Ajzen and Fishbein, 1980) is an extension of the TRA which comprises of a new factor namely: perceived behavioural control, within the TRA framework intended to address the TRA limitations.

The Theory of Planned Behavior (TPB) (Ajzen, 1985;1991) is an extension of the Theory of Reasoned Action (TRA) to address the limitations of the model and was designed to predict pre-meditated deliberate behaviour by introducing a fourth construct into the existing model (Truong, 2009; Armitage and Christian, 2003) (Figure 3.2). In addition to subjective norm,

attitude, and behaviour intention, perceived behavioural control was added into the model and this fourth construct was defined as the individual's evaluation of existing or non-existing factors, which will facilitate or hinder their execution of behaviour (Ajze, 1991; and Rahayu and Day, 2015). The theory behind this model was that an individual's actual behaviour is a product of these four factors.



**Figure 3.1:** Theory of Planned Behaviour (TPB) **Source:** Ajzen (199, P. 82)

Perceived behavioural control refers to the person's perception from the degree of difficulty to implement the behaviour (Ajzen, 1991). Various external factors (e.g., environmental, or organisational factors) can make an assumed behaviour, easier or harder to achieve. Thus, the new added factor, overcomes the difficult prognostic validity of the TRA to justify the behaviour under the research that is not under full volitional power. The TPB and TRA have been applied, individually and integrated in many studies (Gullatte, 2006; Montano and Kasprzyk, 2015; Downs and Hausenblas, 2005; Alam and Sayuti 2011; Chen, 2013; Lee, 2009; Wadie 2012; Awa, Ojiabo, and Emecheta, 2015; Wunnava, 2015; and Rahayu and Day, 2015) concerning beliefs, manners, behaviours, and intents in different fields (Miller, 2005 and Awa, Ojiabo, and Emecheta, 2015).

Many studies have presented the efficiency and applicability of the TPB for testing individuals' behaviour towards an innovation by showing the significant impacts of attitude towards intention (Awa, Ojiabo, and Emecheta, 2015; Davis *et al.*, 1989; Mathieson, 1991; Taylor and Todd, 1995; Lu *et al.*, 2003; and Ramayah *et al.*, 2007); subjective norms (Lee, 2009; and Ramayah *et al.*, 2004); and perceived behavioural control (Taylor and Todd, 1995; and Cheung, Chang and Lai, 2000) on behavioural intention. The TPB theory has seen

successful implementation in study field of technology and social behaviour (Awa, Ojiabo, and Emecheta, 2015; Lee, 2009; Venkatesh and Brown, 2001; Pedersen, 2005). Similar to the TRA, the TPB has been criticised on numerous issues. For example, Trafimow *et al.*, (2002) have identified that all three determinant constructs can justify 39 to 42 percent of inconsistency in the intention to show behaviour and perceived behavioural control, in combining with behavioural intention, can justify 24 to 39 percent of inconsistency in actual behaviour. In other words, they (ibid) were concerned about the “self-reporting” of factors measurement that can lead through self-presentational prejudices. These findings have led these scholars, including Sheeran *et al.* (2001); and Yousafzai *et al.* (2010) to deem this theory to a complete model which can be employed to examine and understanding individual behaviour. Furthermore, this model is also criticised, since it disregards or does not comprise numerous variables that could be considered to enhance the prognostic power of this model (Yousafzai *et al.*, 2010).

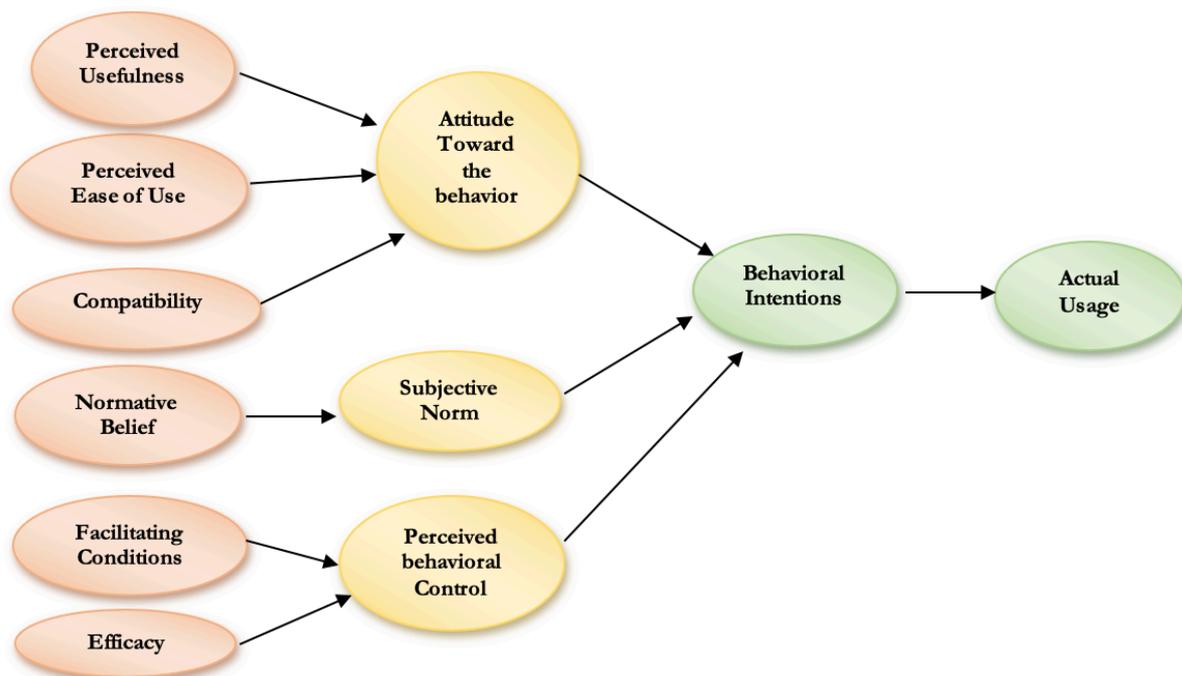
Considering these limitations, the TPB could not be used to study of the E-Marketing adoption in Iran because it does not consider the influence of other external variables, such as technology trust or demographic variables in its framework (Knabe, 2012; and Ramdani, 2008). Reviewed studies have already reported the influence of these variables on technology adoption behaviour and this model’s failure to consider these factors makes it inappropriate for this study. Taylor and Todd (2001) emphasises that, the individual nature of concepts makes it problematic to examine the concept empirically, as it is a concept, which is precisely studied qualitatively. Moreover, Ramdani (2008) discussed that TPB requires distinctive operationalisation in every different condition in which it be applied (Awa, Ojiabo, and Emecheta, 2015; and Mathieson *et al.*, 2001). Thus, Taylor and Todd (1995) suggested another model to overcome these limitations called The Decomposed Theory of Planned Behaviour.

### **3.2.2 The Decomposed Theory of Planned Behaviour (DTPB) (Taylor and Todd, 1995)**

The decomposed theory of planned behavior (DTPB) was developed by Taylor and Todd in 1995 in their research titled “Understanding IT Usage: a test of competing models”. In their model, they developed the TPB theory through breaking down the subjective norm and perceived behavioral control (Luarn and Lin, 2005) which investigates the extents of attitude belief, subjective norm (i.e., social influence) and perceived behavioral control more comprehensively by decomposing them into certain belief scopes (Taylor and Todd, 1995 and

Kripanont, 2007). The DTPB theory suggests that behavioral intention is the initial direct factor of behavior though, the original three fundamental concepts still exist.

This resulted in improved power to describe behavioral intentions and precise understanding of behavioral measures (Pedersen, 2005). According to the DTPB, the behavior is defined by "intention to use", which is influenced by three variables of attitude toward behavior, subjective norm, and perceived behavioral control. Perceived usefulness (PU) is a degree to which an individual believes adopting a specific technology will develop the job performance (Gangwal and Bansal, 2016 and Laukkanen and Cruz, 2009) whereas perceived ease of use (PEU) refers to the extent to which an individual believes adopting a specific system is free from effort (Taylor and Todd, 1995). Moreover, Perceived Compatibility is a degree that an innovation is dependable on the current values and needs, past experiences of potential adopters (Puschel and Mazzon, 2010). While the TPB only describes the link between belief and the prerequisite of intention, DTPB, suggests a broad approach to understanding the factors influencing individual's decision to adopt Information Technology (Suoranta and Mattila, 2004). This model is shown as in Figure 3.3.



**Figure3.2:** Decomposed Theory of Planned Behavior (DTPB). **Source:** Taylor and Todd (1995)

These three variables have been found to be dependably related particularly to IT usage and adoption (Kripanont, 2007 and Gangwal and Bansal, 2016). Subjective norm in this theory was decomposed into peer impact and superiors' influence since each individual may have special perspective on IT usage. For example, peers may be opposed to the adopt of a specific system,

as they think it needs too. But superiors' may be promising the deployment of the system since they expect certain output payoffs. Thus, it has been proposed to decompose normative belief into two groups since the peers' expectations, and superiors are predicted to vary (Taylor and Todd 1995).

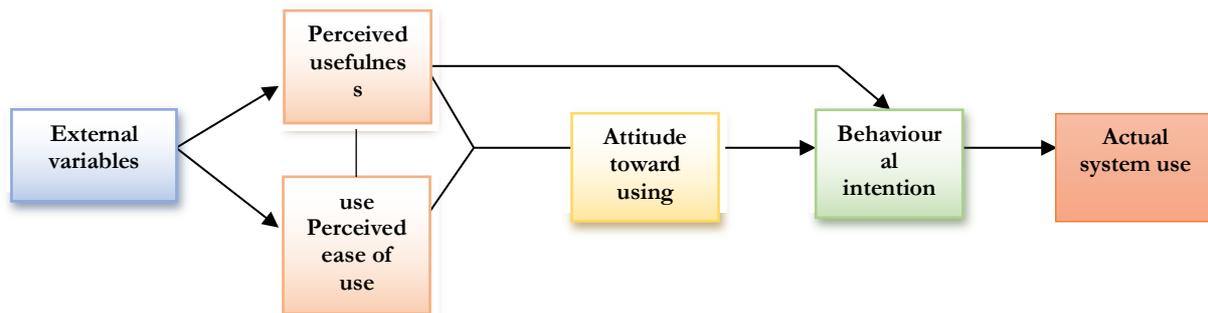
On the other hand, perceived behavioral control was decomposed into three constructs of: Self-efficacy (Bandura 1977) which is related to the ability, and it is expected that higher levels will lead to better behavioral intention and IT usage (Compeau and Higgins, 1991), Facilitating conditions with two scopes for control beliefs (e.g., time and money) and technology compatibility issues. Hence, this model appeared to have more capability in describing IT usage behavior although is a less frugal model compared to TPB (Kripanont, 2007 and Gangwal and Bansal, 2016). Since this research is mainly about E-Marketing, which is a technological innovation, the DTPB model could give an acceptable explanation of E-Marketing adoption intention by distribution firms.

To establish the probability of adopting the DTPB in describing and understanding the adoption of E-Marketing by distribution firms, the literature related to the model was inspected. By reviewing the extant literature, it was found that while some researchers support the model (e.g. Sainter, and Saunders, 2013; Al-Majali, 2011; Sadaf, Newby, Ertmer, 2012; Gangwal, and Bansal, 2016; Shih and Fang, 2004; and Riemenschneider, Harrison, and Mykytyn Jr, 2003), others failed to do so (e.g. Oliver and Bearden, 1985; Hsu and Chiu, 2004; and Khalifa, , and Kathy Ning Shen,2008). On the other hand, some of the main hypotheses utilised in this model are adopted from other theories. Therefore, depending on the theory, could give a more satisfactory explanation of E-Marketing adoption intention by distribution firms. Within this respect the theory has some main limitations which is ignoring factors both inside and outside the firm that might have an influence on new technology adoption and diffusion (e.g., economic factors: cost, pressure from business partners, suppliers, customers, or competitors) and organisation's characteristics: (size, age, sector and status).

### **3.2.3 The Technology Acceptance Model (TAM) (Davis, 1989)**

The Technology Acceptance Model (TAM) was developed by Davis (1989). This model was developed to provide explanation for individual's behaviour regarding PC use (Figure 3.4). This model was adapted from the TRA model to predict the acceptance of the individuals of the utilisation of technology. TAM theory addresses the determinants for adoption and

acceptance of technology to better justify user's behavior (Davies *et al.*, 1989). According to Davis (1989), users usually tend to accept a technology that would help them in performing the jobs. Though, if they believe the technology is too hard to be used, they tend to refuse the use of technology. The former is known as perceived usefulness, while the latter relates to perceived ease of use. Therefore, according to this theory, both variables, are considered as important determinant factors in ICT adoption.



**Figure 3.3:** The Technology Acceptance Model (TAM) **Source:** Davis *et al.* (1989)

In the organisational context, the PU is related to improvement in individual's performance which lead greater profits. One important difference between these two factors is that PU refers to the consequence of using the IT system while PEU refers to the process leading to the final outcome (Childers *et al.*, 2001). Davies *et al.* (1989) proposed that when individuals are presented with a new technology, both measures would impact the usage of the system. Moreover, PU is also influenced by the PEU. The theory implies that the individual's actual IT use is determined by the behavioral purpose to deploy it. Therefore, this theory has not frequently adopted to study the usage at an organisational level. Also, Campbell, Wells, and Valacich (2013) discussed that the various number of studies that have used the theory has led to a saturation level and restricted its practical effectiveness (e.g., William, R, K and Jun, 2006; and Shih-Chi *et al.*, 2011).

TAM has been established to be easy to use and has been broadly applied in IT adoption studies (Abdullah, Wahab and Shamsuddin, 2013; Chuttur, 2009; Subramanian, 1994; Davis, 1989; Davis *et al.*, 1989; Lu *et al.* 2003; Taylor and Todd, 1995; Venkatesh and Davis, 2000; Yoon 2009; Safeena, Date, Hundewale and Kammani, 2013; Rahman and Sloan, 2017; Alalwan *et al.*,2018; Jokonya, 2015; AlKailani, 2016; and Awa, *et al.*, 2015). The wide usage of TAM has led to the theory being improved by adding more constructs/antecedents. For instance, Venkatesh *et al.* (2003) recommended that constructs such as: effort and performance

expectancy, social influence, self-efficacy, trust, culture, voluntariness, variety of technology, and facilitating conditions) directly impact individuals' intentions to adopt the new technology. This resulted in some derivatives of Technology Acceptance Model, such as TAM II and UTAUT (Venkatesh *et al.*, 2003; Davis *et al.*, 1989; Hong *et al.*, 1999; Shih, 2004; Venkatesh and Davis, 2000; and Attuquayefio and Addo, 2014).

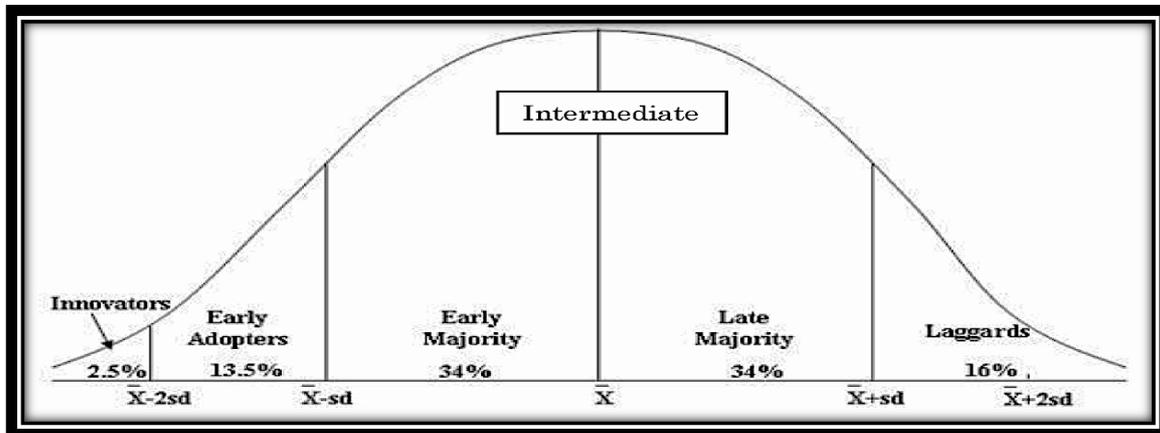
Despite of advantages, TAM has also been criticised on various issues. For example, Mathieson (1991) argued that the TAM only offers overall information of individual's opinions about the new system and it does not provide data on how such insight are shaped or how they can be employed to foster Individual's technology acceptance and boosted the use" (Yousafzai *et al.*, 2010, P.1178). Szajna (1996) reviewed discriminant validity of TAM construct. Since all TAM constructs are, evaluate by self-reported measurement. Straub, Limayem, and Karahanna-Evaristo (1999, P.1336) stated that a study that be dependent on individual measures for both Independent and dependent variables may not be finding reality and the significant effect, but only plain artifacts. Another limitation of TAM is its focus on PU and variables that described the usefulness of user's behaviours in deploying computers (Bagozzi, 2007). Finally, TAM ignores exterior and situational impacts culture (Lala, 2014).

### **3.2.4 Diffusion of Innovation Theory (DOI) (Rogers, 1995, 2003)**

The diffusion of innovation (DOI) theory (Rogers, 1995, 2003) describes the diffusion process of an innovation and focusses on several factors that impact different stages of IT process. This theory is one of most popular theories on innovation and new technology adoption. The Rogers' Model is used in describing the innovation adoption in rural sociology context. The term innovation refers to new products/services, new process technologies, new organisational structures/administrative systems, or new plans/programming about organisational members (Moore and Benbasat, 1991) that focuses on changes in firm, either in response to changes in the external environment or as a proactive action to impact the environment (Lertwongsatien *et al.*, 2004). While diffusion refers to "*the process by which an innovation is communicated through certain channels over time among members of social systems*" (Rogers, 2003, P: 5).

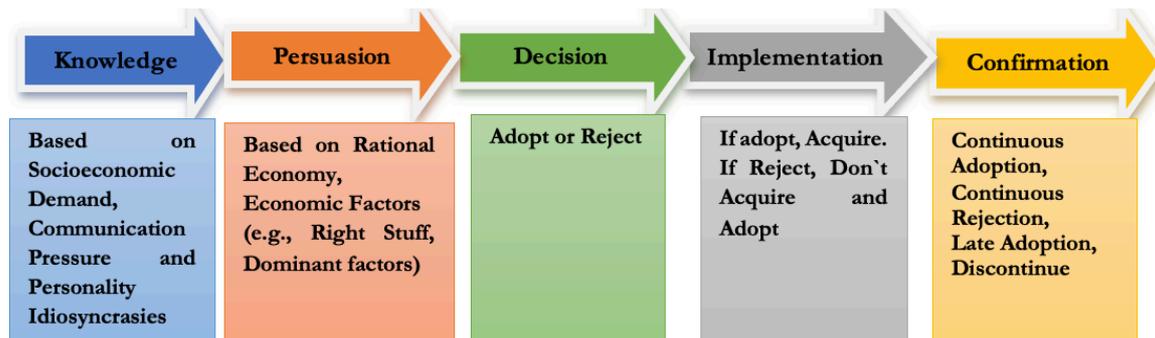
This model has offered much of the essential theoretical platform upon which most IT adoption studies are based just as it provides significant understanding of the complexities of ICT innovation in three stages (Aleke *et al.*, 2011). DOI therefore deals with the development of demand level for an innovation (Idris, Edwards, and McDonald, 2017). Rogers (2003)

discussed that each adopter's willingness and capability to adopt and share an innovation would rely on their awareness, interest, assessment, trial, and adoption. This led to the proposal of a five stages model for the diffusion of innovation (Figure 3.5).



**Figure 3.4:** Innovation Diffusion Curve Mapped Over Time and Categorized Innovativeness **Source:** Rogers (2003)

The five adopter groups include: innovators, early adopters, early majority, late majority, and laggards (Rogers, 1995, 2003; Idris, Edwards, and McDonald, 2017). *Innovators* are individuals who belong to the very first 2.5th percentile of adopters are eager to experience new ideas, adventurous, educated, and are unwilling to take risks. *Early adopters* make up the following 13.5th percentile, have the high level of opinion leadership in firms, and count as role models for organisations and society, the *early* and *late majorities* split the 34th percentile at both sides of the median. Early majorities engage in more discussion before adopting a new technology, but late majorities are vigilant and encouraged to use by their peers; finally, the *laggards* belong to the last 16th percentile, are resource restricted, innovation guarded and take a long period to make the adoption decision. The speed of innovation diffusion varies between the sources and channels of communication (Rogers, 2003; and Idris, Edwards, and McDonald, 2017). Rogers (2003) argued that each adopter's readiness and capability to adopt and share an innovation would rely on their awareness, interest, assessment, trial, and adoption. To make the adoption decision, the potential adopters go through a five steps process flowing from knowledge about the new innovation through to confirmation as graphically presented in Figure 3.6.



**Figure 3.5:** Five Stages in the Innovation Adoption and Diffusion-Decision Making Process  
**Source:** Rogers, (2003, P: 170)

Within the first stage the individual becomes conscious of an innovation and has some ideas of the functioning, Within the second stage, the individual forms a favourable or unfavourable attitude regarding the innovation, in the decision stage, the individual involves in activities that gives a choice whether to adopt or to reject the Innovation; in the Implementation stage the individual puts an innovation into adoption by spending money to obtain and stimulate the new enterprise at the cost of the old custom (Abdulhakeem, Edwards, and McDonald, 2017), and finally within the confirmation stage the individual assesses the outcomes of an innovation-decision that have already made (Rogers,2003; Orr, 2003; and Abdulhakeem, Edwards, and McDonald, 2017).

Moreover, Rogers (2003) discussed that the speed of innovation diffusion depends on five innovation attributes namely: relative advantage, compatibility, complexity, trialability, and observability. Rogers (2003) describes relative advantage as the level to which an innovation is apparent as being better than the one it is replacing. The better the relative advantage, the superior the perceived economic returns, developed social status, and related benefits expected to increase from adopting such innovation. Therefore, relative advantage includes a cost-benefit analysis (Fichman and Kemerer, 1997) which highlights the economic viewpoint and output of adoption in relation to a trade-off between a new technology innovation and the old one it is substituting (Orr, 2003).

Compatibility is the level in which an innovation is seen consistent with the existing standard, principles, and processes including the needs of the possible adopters within the social scheme (Rogers, 1995; Kamaroddin *et al.*, 2009; Poorangi *et al.*, 2013). Complexity refers to the level in which an innovation is observed as difficult to understand and deployment (He *et al.*, 2006). Rogers (2003) describes that “*the complexity of innovation, as perceived by members of a social organization, is negatively related to its rate of adoption*” (P. 257). Trialability is the

level in which an innovation is perceived as trial and experimental within a restricted period that the idea or innovation may be tried or experimented on before it is adopted (Ramdani and Kawalek, 2007 and Abdulhakeem, Edwards, and McDonald, 2017). The more the trialability period, the faster the degree of adoption and diffusion. Observability is the level in which the impacts of innovation are visible to individuals.

From the original definition of DOI, this research draws from the modification of Roger's DOI model proposed by Hultman (2007) that suggests a processual (Kurnia and Johnston, 2000) view of E-Marketing adoption. Hultman's model depicts a process that has four stages namely: Presentation, Evaluation, Decision, and Implementation. The improved model also has a criticism that allowed for re-evaluation of decisions to adopt or reject and contains four subordinate choices that are presented after the preliminary decision.

Having provided a review of the key themes of research in innovation adoption literature, the following section will deal with the factors that were found in literature to be relevant to technological innovation and particularly E-Marketing adoption. It is valuable to note that research on organisational innovation adoption has recognised a large number of variables as predictors of innovation adoption. These factors can be grouped into four main categories of innovation characteristics, organisational factors, individual factors, and external factors. This grouping has been used by a number of researchers particularly those studying the adoption of innovations (Premkumar and Roberts, 1999; Thong, 1999; Frambach and Schillewaert, 2002; Al-Qirim, 2007; Oliveira and Martins, 2011; Ohunmah, 2015; Chiu, Chen, and Chen, 2017; Rabie, 2013, Al-Somali, 2011; and Rahayu and Day, 2015). DOI has been deployed extensively to test the adoption of IT and IS innovations varying from web page (Beatty *et al.*, 2001 and Kannikaparameshwari and Chandrashekar, 2018) to databases (Brancheau and Wetherbe, 1990), and from E-Marketing activities (Li *et al.*, 2011; Wu and Wang, 2005; Teo and Pok, 2003; El-Gohary, 2009; Qashou and Saleh, 2018; Sheikh, Shahzad, and Ishak, 2017; Rashid and Al-Qirim, 2007) to e-commerce and e-business (Rahayu and Day, 2017; Idris, Edwards, McDonald, 2017; Nwankwo and Eze, 2013; Alrousan, 2014; Al-Somali *et al.*, 2011; and Ifinedo, 2014).

All the researches and many more examined either the success or failure of DOI adoption and diffusion at both individual level (Agarwal and Prasad, 1997; Premkumar *et al.*, 1994; Hussain,

Rahman, Zaheer, and Saleem, 2016; Saini and Sharma, 2017; Claudy; Oliveira, Thomas, Baptista, and Campos, 2016; Jansson, 2011; and Roach, 2009) and at organisational level (Rabie, 2013; Ohunmah, 2015; Alrousan, 2014; Abou-Shouk, Megicks, and Lim, 2013; Al-Alawi and Al-Ali, 2015; Garg and Choeu, 2015; Rahayu, and Day, 2015; and Huy *et al.*, 2012). Moreover, some of the characteristics have been found to influence adoption performs much greater than the others, and in some cases the results were inconsistent (Jeyaraj *et al.*, 2006; Fichman, 1992; and Tornatzky and Klein, 1982). For instance, Tornatzky and Klein (1982), in their studies found that three of the five characteristics (compatibility, relative advantage, and complexity) were moderately more reliably related to DOI adoption than others.

liussin and Noor (2005) adopted DOI to examine the motivation of Malaysian firms in adopting online marketing and found the relative advantage, observability, and complexity to be significantly have positive relationship with adoption whereas the trialability and compatibility were insignificant. Moreover, Mole *et al* (2010) in their findings found that the factors of the IT adoption process are vary significantly from technology to technology and it appears that organisations use the technology, based on their characteristics, abilities, and competitors.

There are some criticisms on this model like others. This model suffers from a pro-innovation preconception (Botha and Atkins, 2005), a user blame partiality in DOI, the recollection problem, and lastly the issue of dissimilarity (Rogers, 2003). The main criticism of DOI is that the model presents innovation diffusion as a straight-forward and simple process. However, innovation diffusion in different industries cannot be as basic as showed in DOI and the complex nature of IT processes within different groups needs different patterns of communications and relationships (Aleke *et al.*, 2011; and Fichman and kremerer, 1999). Based on the reviewed criticisms of the DOI theory a new method to test the organisational level innovation adoption was driven the lead toward the development of TOE theory.

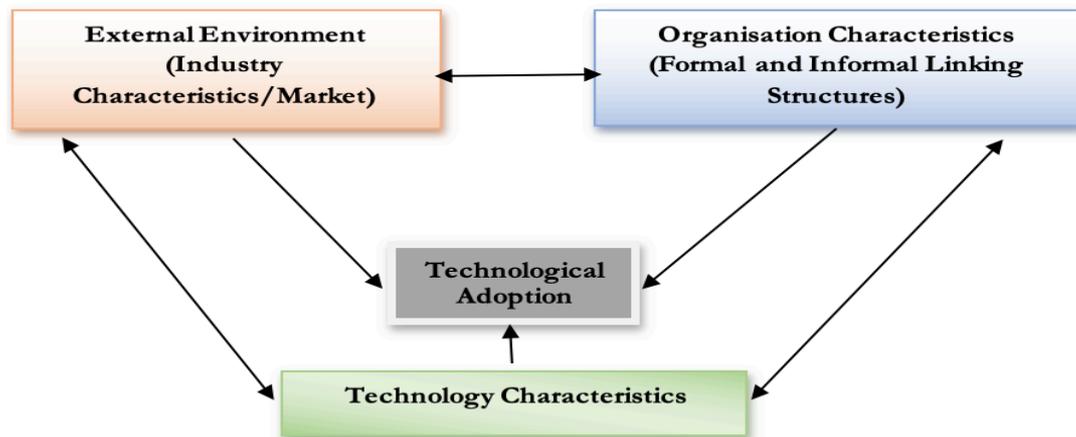
### **3.2.5 The Technological-Organisational-Environmental (TOE) Framework (Tornatzky and Fleischer, 1990)**

While DOI was effectively applied to individual technology innovation adoption and diffusion, it was not with organisational technology innovation adoption and diffusion. Some criticisms straggled its application to organisational technology innovations (Chau and Tam, 1997 and Abdulhakeem, Edwards, and McDonald, 2017), since the model offered by Roger emphases on the manufactured elements via a process of interaction among individuals within the

population. Thus, scholars are questioning the validity of such a model to a compound technological innovation at the organisation level (Attewell, 1992; Brancheau and Wetherbe, 1990) which resulted into some conflicts. The DOI elements are apparent to be dissimilar by different organisations based on their backgrounds (Venkatesh *et al.*, 2003; Agarwal and Prasad, 1999; Premkumar *et al.*, 1994). In response to criticism of academics on usage of DOI, Tornatzky and Fleischer (1990), and Fichman and Kemerer (1993) began to include distinctive characteristics of contexts in the improvement of what could be called “strong theory” (Thong, 1999) to study technology innovation adoption at organisational level.

Therefore, new perspectives such as individual (CEO/managers) characteristics (Premkumar *et al.*, 1994; Venkatesh *et al.*, 2003; Fichman, 2004), characteristics of the organisational management (Kimberly and Evanisko, 1981) and organisational and environmental characteristics (Tornatzky and Fleischer, 1990; Thong, 1999) were combined with the original Rogers’ innovation’s model to overcome some of the detected limitations. Tornatzky and Fleischer (1990) developed the Technology-Organisation-Environment (TOE) framework to study IT innovation adoption by organisations (Kok *et al.*, 2011). TOE framework (Figure 3.7) is premised on the discussion that, the readiness of an organisation to adopt a technological innovation is determined by three contexts namely: technological, organisational, and environmental context (Tornatzky and Fleischer, 1990).

The internal and external technologies in the technological context are described by both equipment and procedures, relevant to the firm (Zhu *et al.*, 2003). The organisational context is described in terms of the characteristics and resources within the firm including size, the level of centralisation, degree of formalisation, conformation of managerial hierarchy, structure of the human resources, slack of resources, and internal links between employees (Tornatzky and Fleischer, 1990; Tehrani and Shirazi, 2014). The environmental context is about the conformation of the organisation’s functional setting which is fundamentally external and includes: the size and structure of the industry, competitors, the macro-economic context, and the regulatory environment that includes government legislations (Tornatzky and Fleischer, 1990).



**Figure 3.7:** Technology-Organization-Environment (T-O-E) Framework.

**Source:** Adapted from Tornatzky and Fleischer (1990)

Many researchers have integrated TOE with other theoretical frameworks (Alkhalil, Sahandi, and John, 2017; Gangwar, Date, and Ramaswamy, 2015; Chiu, Chen, and Chen, 2017 ; Awa, Ojiabo, and Emecheta, 2015; Kok *et al.*, 2014; Ifinedo, 2011; Zhu *et al.*, 2006; Ndekwa and Katunzi, 2016; Rabie, 2013, Rahayu and Day, 2015; Oliveira and Martins, 2010 ; Pan and Jan, 2008; Kuan and Chau, 2001; and Chau and Tam, 1997. etc.). According to Tornatzky and Fleischer (1990), these three elements present both limitations and outlooks for technological innovation adoption by an organisation. Literature shows that TOE has been extensively used and validated by many scholars for the adoption of IT in both developed and developing countries. However, the TOE framework has been assessed for not having a combined concept within the three contexts as the constructs are differ from one study to another. There is scarcely a single factor that has been tested steadily by innovation academics. It seems that the identification of variables in TOE framework mainly depends on the specificity of the innovation studies (Kok *et al.*, 2014). Other limitation of TOE is that it does not ascertain the managerial elements in depth (Hashim, 2007). As a result, many scholars discussed in favour of developing TOE by adding a fourth context namely the managerial factors (Thong, 1999; Scupola, 2009; and Alamro and Trawaneh, 2011). Moreover, the TOE requires more variables to have a superior description of technology adoption (Iacovou *et al.* ,1995). This has led academics to either change or combine the TOE framework with other theoretical frameworks (See appendix 2) with the purpose of developing integrated framework that have deeper foretelling powers that will be more related contextually.

For example, Thong (1999) developed an integrated model and identified four contexts of – technological, organisational, environmental, and managerial characteristics – as key concepts

to assess ICT technology adoption. Thong (1999) asserts that, the manager's characteristics are vital in determining the innovative attitude of companies since the manager's capabilities, preferences, and the degree in which he is prepared to decentralise management goals. Moreover, Wang *et al.* (2010) examined the Technological context (relative advantage; complexity; compatibility), Organisational context (top management support; firm size; technology competence); and Environmental context (competitive pressure; trading partner pressure; information intensity). There is lack of improvement in TOE as it has a high degree in terms of factor choice, and this may clarify why TOE is extensively adopted in the innovation technique (Baker, 2012, P. 237). As can be seen in appendix 2, deploying TOE has led scholars to either adjust or integrate the framework with other theoretical frameworks with the purpose of developing an integrated framework that has deeper predictive influences and be more applicable contextually. Literature demonstrates that the initial TOE framework was proposed for firms in developed countries as most of the primary streams of studies using TOE were in developed countries (e.g., Gibbs and Kraemer, 2004; Zhu *et al.*, 2003). Moreover, the initial TOE had been changed or integrated with other frameworks since, on its own, it may not give an inclusive justification (Alzougool and Kurnia, 2008) as the usage of technology innovations specifically in developing countries are vary from those in developed countries due to different socio-cultural, environmental, political, and economic backgrounds. Moreover, majority of studies combined TOE with one theory of new technology, and there are few studies combined with two or three new technology theories (e.g., Rabie, 2013; Hassen, Rahim, and Shah, 2019). This shows a gap in the literature. The integrated TOE model benefits from other grounded theories and will provides more inclusive and insightful knowledge in describing and determining the determinant factor of E-Marketing adoption (Awa, Ojiabo, and Orokor, 2017).

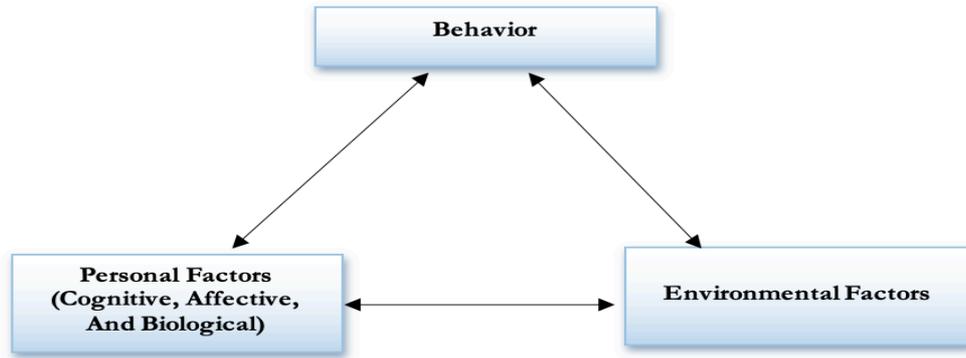
The TOE framework lays the basis, for many models that the extant literature presents. For instance, Chau and Tam (1997) applied the TOE framework and recommended that one future line of study is to extend the suggested TOE framework to other innovation contexts (Chau and Tam, 1997, P:17). Moreover, Zhu *et al.* (2003) described upon the TOE framework to find facilitators and hindrances for IT adoption decisions by European firms and used the solid theoretical bases of the TOE framework to determine the facilitators and hindrances for IT adoption. The usefulness of the TOE framework is extensively acknowledged (Scupola, 2009; and Amin and Hussin, 2014) as it provides a much better explanation of the companies' decision-making behaviour (Bouchard, 1993).

### 3.2.6 Social Cognitive Theory (SCT) (Bandura, 1977)

Social cognitive theory (SCT) suggested by Bandura (1977) provides a structure for understanding, forecasting, and changing human behavior. The SCT focuses on behavior as an interaction between behavior, personal, and the environmental factors (Bandura, 1977). According to this theory, individual's intention to achieve a specific behavior is recognized by their self-efficacy and outcome expectancy (Figure 3.8) (Bandura, 1977). Self-efficacy refers to a confidence that individuals have in their capability to achieve a specific behavior which is affected by variables such as verbal influence, achievements, indirect experiences, and emotional signals (Bandura, 1997). This element affects a person's choice of manners, their perseverance in overcoming hindrances, and their capability to perform the behavior (Compeau and Higgins, 1995). Outcome expectancy, however, refers to a judgment that a specific behavior will lead to one or more consequences (Bandura, 1986, P:391; Lin and Huang, 2008; Boateng, Adam, Okoe, and Anning-Dorson, 2016; and Khater, 2016). This consequence may be physical, social, or self-evaluative (Bandura, 1986).

Individuals who are more successful tend to identify the outcomes in a more positive light. Therefore, outcome expectancy is directly persuaded by self-efficacy (Band, 2006 and Tsai, 2014). SCT suggests that the individuals' performance need to be observed as the product of a vigorous understanding of the outcomes of their own behavior, changes in their environments and the personal aspects that they acquire which, in turn, notify and change consequent behavior (Khater, 2016).

This theory is the basis of formation of joint determinism by Bandura (1986) which analyses: (1) personal aspects as a cognition, affect, and biological actions, (2) behavior, and (3) environmental effects that make collaborations that lead in a triadic reciprocally (Figure 3.8). Bandura changed the description of the theory from social learning to cognitive both to detach it from dominant SL theories and to highlight that cognition plays an important role in human's ability to build truth, self-regulate, convert information, and implement behaviors (Kripanont, 2007 and Tsai, 2014).



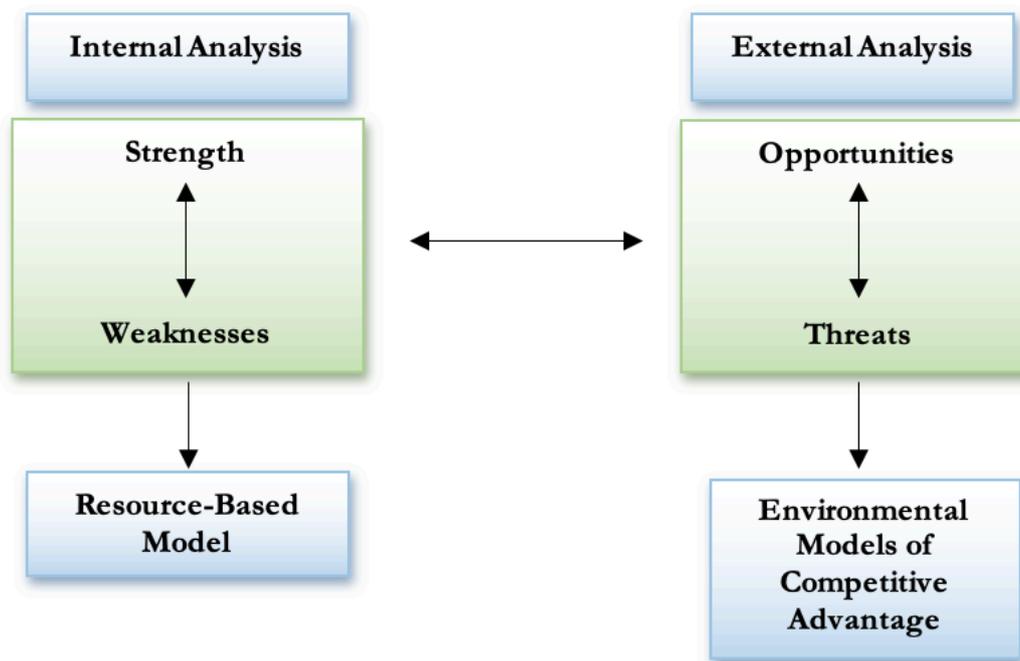
**Figure 3.8:** Social Cognitive Theory (SCT)  
**Source:** Bandura (1995)

The result expectations were studied in many of the IT studies (e.g., Davis *et al.*, 1989; Venkatesh, *et al.*, 2008; Rogers, 2003; Boateng *et al.*, 2016; Zhao, Naidu, and Wallis, 2019. Hajiyev and Chang, 2017; Lin and Huang, 2008; Tsai, 2014). It is challenging to describe the reciprocal relationship of the SCT, but it is beneficial to examine how this theory has practical perceptions into the cognitive, affective, and behavioural response of individuals to explain the adoption of Information Technologies. Computer efficacy is related to the attitudes of an individual's capability to deploy a computer. It would not be related to what individuals accomplished in the past, but rather with the feelings that they hold for what they can achieve in the future (Boateng *et al.*, 2016). Thus, Internet efficacy would describe an individual's perception of the capacity to use the Internet to complete tasks in the future (Al-Saif, 2013).

Compeau and Higgins (1991) and Hajiyev and Chang (2017) used self-efficacy to explain different use of Information Systems for different services. They stated that organisations with high self-efficacy in adopting the Internet will have more confidence about their abilities to effectively perform different responsibilities. Li *et al.* (2011) used SCT to examine user satisfaction of Kuan and Chau (2001) in organisations. In their model, they tested how the system characteristics (e.g., information, system, and service quality) impact the constructs of outcome expectancy and computer self-efficacy. They (ibid) examined the impact of computer self-efficacy on the outcome expectancy construct and the influence of these two constructs on user satisfaction. The results showed that the system characteristics have a positive impact on outcome expectancy. Conclusively, the computer self-efficacy and the outcome expectancy constructs have a positive impact on Information System satisfaction.

### 3.2.7 Resource-Based View (Barney, 1991)

Resource-based view (RBV) received the scholars' attention from 1980s onwards (Galbreath, 2005; Narayanan, 2001). This Theory was developed by Barney (1991) which is defined as a complementary viewpoint to market-based models by scholars such as Porter (1990) and Narayanan (2001). In RBV theory (Figure 3.9), the businesses can attain a sustainable competitive advantage by deploying and developing the different resources either internal or external source bundles (Parker and Castleman, 2009; Ray and Ray, 2006; Rahayu, 2015; and Perrigot and Pénard, 2013).



**Figure 3.9:** The Relationship between Traditional SWOT Analyses, the Resource Based Model, and Models of Industry Attractiveness. **Source:** Wright, McMahan and McWilliams (1994)

The description of resources itself has not been similar in extant literature (Peppard and Ward, 2004) define it as stocks of existing variables that are controlled by the company. These resources contain of assets, capabilities, procedures, characteristics, knowledge, and experience that are maintained by a company, and can be deployed to improve and authorise competitive policies (Perrigot and Pénard, 2013; Schu, Morschett, and Swoboda, 2016; and Ramanathan, Ramanathan, and Hsiao, 2012). Conner (1991) described those capabilities and resources are the outcomes of the organisation's resource promises and strategic selections and were managed through an economic impulse and by an intention of efficacy and outputs.

For a company to obtain competitive advantage, need to have a source that is not replicated in other organisation, means that the resources must be unique to the company and extremely valued from the perspective competitors (Wade and Hulland, 2004; and Perrigot and Pénard, 2013) as well as accessibility to adequate financial resources to boost the company's capability to promote the innovative behaviours (Perrigot and Pénard, 2013; Lee *et al.*, 2001). The lack of financial sources could impact the level of organisation's innovation negatively (Perrigot and Pénard, 2013; and Taher, 2012). Moreover, Technical resources (e.g., IT systems and infrastructure, production services) impact the technology innovation adoption positively (Lynn *et al.*, 1999; and Taher, 2012). Marketing abilities as another element of RBV, is an important factor for the IT implementation. Some researchers found a positive relationship between it innovation adoption and marketing capabilities (Simmons *et al.*, 2007; Taher, 2012; Souder and Jenssen, 1999; Benedetto *et al.*, 2008; and Schu, Morschett, and Swoboda, 2016). For example, Simmons *et al.* (2007) and Souder and Jenssen (1999) studied the organisation's marketing capabilities to examine the relationship with the business adoption of the Internet, found that the more operative capability of the organisation's marketing collaboration, the faster the innovation procedures and acquiring successful outputs.

Parker and Castleman (2009) give credit to RBV as it underlines the resources (Both tangible and intangible) that any company has. This theory like any other theory has some limitations: RBV assumes that resources in a firm will be deployed to its full potential (Parker and Castleman, 2009; Melville *et al.*, 2004; and Yang, Xun, and He, 2015). They argue that RBV on its individually is inadequate to study for firms' IT adoption matters and it assumes that firms already have the resources which identified as owner/managers, employee characteristics, IS/IT tools, and technologies (Yang, Xun, and He, 2015). Thy (*ibid*) found that proactive companies implemented better with IT adoption since they utilised it to support their policies and influence competencies, and established internal IT capabilities (Parker and Castleman, 2009; and Schu, Morschett, and Swoboda, 2016). Another limitation is that RBV does not describe the adoption decisions of companies since external variables resulted in adoption, even if these companies did not improve internal IT capabilities or influence their competencies (Parker and Castleman, 2009; Rivard *et al.*, 2006). Furthermore, Yang, Xun, and He (2015) criticise the RBV for its inward emphasis in which they assert that the issue with this is that risks are mostly ignored in market need.

In IT adoption literature, this theory is mainly adopted to explain the contribution of IT technologies and firm's capabilities to create business value and influence the effectiveness of Information Technology (Clemons and Row, 1991; Jarvenpaa and Leidner, 1998). Zhu and Kreamer (2005) used this theory to describe the relationship between Internet adoption and business value. Waheib (2016) used the RBV to understand the successful adoption and use of IS and technology in manufactures. Rabie (2013) adopted the RBV to study the process of e-commerce value creation and he established the causal relationships between strategies, IT related means, and internet capabilities and their roles in determining organizational conversion and consequence of E-Marketing implementation. Concurrently, Shemi (2012) measures the business value of e-marketing capability and IT infrastructure at the organisational level. the results were in line with the RBV theory and provide empirical evidence for the complementary interaction between e-marketing capability and IT infrastructure. It is important to know that company's characteristics is not the only factor to be considered since, resource adoption were influenced, also by other elements such as the technological background; industry structure; and competitors' behaviors (Amit and Shoemaker, 1993 and Yang, Xun, and He, 2015).

### **3.2.8 The Model of PC Utilisation (Thompson et al., 1991)**

Personal behaviour and the prediction of PC use, rather than intention to deploy is considered by Thompson *et al.* (1991). This is an essential theory to describe the adoption and utilisation of E-Marketing, since the computers are the base through which people use the Internet. Thompson *et al.* (1991) effort to predict individual's personal acceptance and behaviour to deploy IT in a model that is consists of six factors.

The main components in the theory and their definitions include (Figure 3.10):

*Job-fit with PC use:* "The degree to which a person believes that deploying a technology can improve the performance of his or her job".

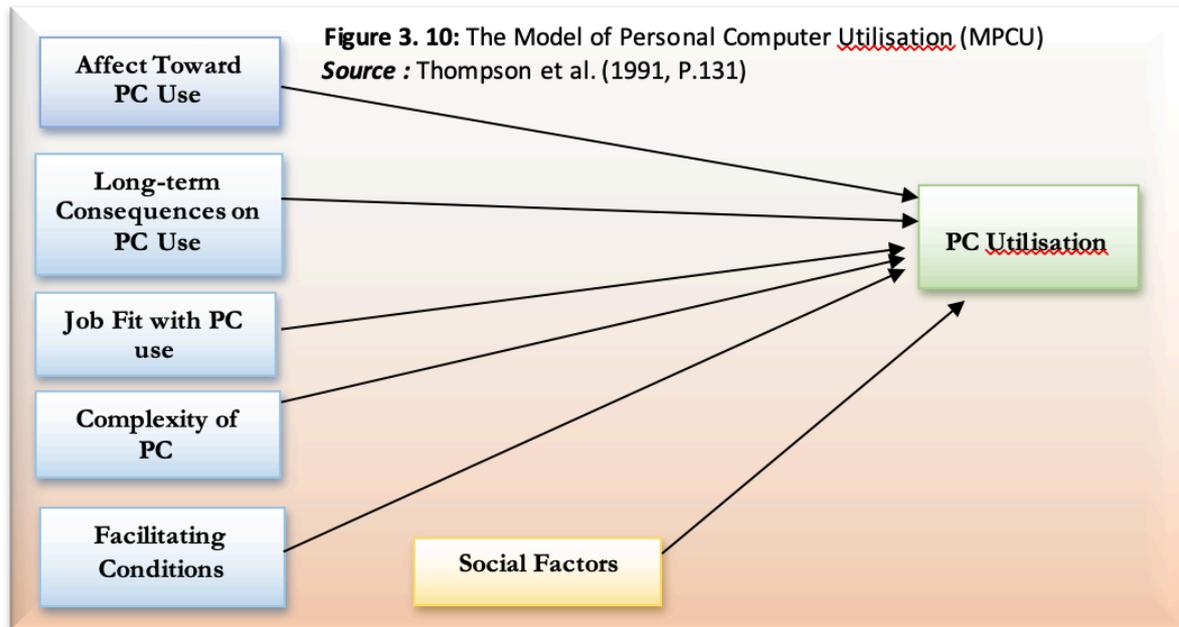
*Complexity:* "Similar to the construct of PEU and complexity in DOI discussed by Rogers (1995, 2003), refers to the extent to which a technology innovation is apparent as moderately difficult to understand and employ".

*Long-term Consequences of PC Use:* "consequences that have a pay-off in the future".

*Affect towards PC Use:* "feelings of happiness, joy, or desire, or despair, revulsion, anger, or hate linked by a person with a specific act".

Social Factors: “User’s internalization of the reference group culture, and particular relational agreements that the person has made with others, in exclusive social establishments”

Facilitating Conditions: “anticipation of encouragement for PC users may be one type of Facilitating condition that can affect system use”.



Thompson *et al.* (1991) used Theory of Interpersonal Behavior (TIB) to the context of PC use by knowledge employees. They (ibid) discussed Theory of Interpersonal Behavior with complexity and Job fit with PC Use. The TIB comprised of habit as a basis of behavior. Though, because of the difficulties in measurement, it was omitted from the MPCU as a variable. Therefore, the model tested the impact of facilitating conditions, affect toward PC use, complexity, social factors, job fit, and long-term consequences of PC use. The findings shown that social factors, complexity, job fit, and long-term consequences have a significant impact on PC use. In paradox with the TIB, there was no available suggestion that attitude and facilitating conditions have an influence on PC utilisation (Band, 2006).

It is worth stating that, the MPCU was not used to assess E-Marketing adoption in general (Al-Saif ,2013; Khater, 2016). The evidence are the studies by Terzis and Economidies (2011) Hernandez and Grayson (2012); Marzuki (2016); and Hanafizadeh *et al.*, (2014) who are investigated the factors that impact on male and female students' behaviour intention to utilise computer-based assessment (CBA) that is somewhat similar to the MPCU in E-Commerce and IT adoption context. They found that PEU were significant variable for women more than men. Moreover, the PU were the most significant variable that impact male students. Though, it is

vital to note that the sample of this research was a student sample that had different enthusiasms and knowledge, and experience.

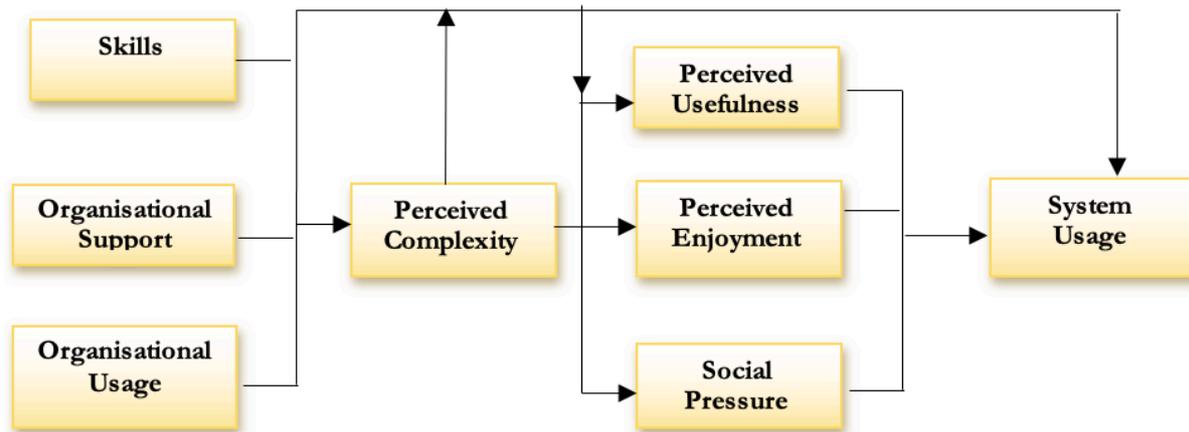
### **3.2.9 Motivational Model (Davis, Bagozzi and Warshaw, 1992)**

Ryan and Deci (2000) suggest that the term “motivation” is related to dynamism, path, determination and equifinality, that all are the aspects of motivation and intention (Khater, 2016). Davis, Bagozzi and Warshaw (1992) examined the MM of technology acceptance based on Ryan and Deci’s two types of motivation (Intrinsic and Extrinsic Motivation) and found both to be significant drivers of a person’s intention to make the behavior of internet technology usage. Davis’s research was concerning extrinsic and intrinsic motivation to deploy Computers in the workplace. From this viewpoint, according to Venkatesh (2000, P: 351) and Davis, Bagozzi and Warshaw (1992):

*Extrinsic Motivation:* The utilisation of a technology at workplace will be supported by predicted reward for employees (e.g., increase on salary or bonus, promotion, rewards) bearing that the new technology is apparent as beneficial tool for achieving the personal goals.

*Intrinsic Motivation:* To use new technology to conduct the individuals towards their perceived enjoyment and satisfaction (which influences the construct positively) of deploying the technology nevertheless of the result that they might achieved in their performance.

The findings indicated that individual’s intents to employ computers at the work are affected largely by their insights of how beneficial the computers are for their job performance progress and also the extant of the enjoyment they experience utilising them. They (ibid) also highlighted the positive interaction that through Internet Technology (regardless of their job performance result) might be acquired. The research also underlined the positive interaction examined between effectiveness and satisfaction suggests that the satisfaction feel has a better influence on intentions when new technology systems are perceived to be more beneficial. In other words, enhancing the enjoy capability of a system would increase the acceptance of the advantageous of a system but have less of an influence on acceptance of disadvantageous of the systems (Davis, Bagozzi, and Warshaw, 1992). Moreover, another researcher (Igbaria *et al.*, 1996) combined and tested the relative impact of the PU and social pressures, on a person’s decisions to adopt micro-computers. Their conceptual model was according to the MM in Figure 3.11.



**Figure 3.11:** The MM of Micro-Computer Usage  
**Source:** Igbaria *et al.* (1996)

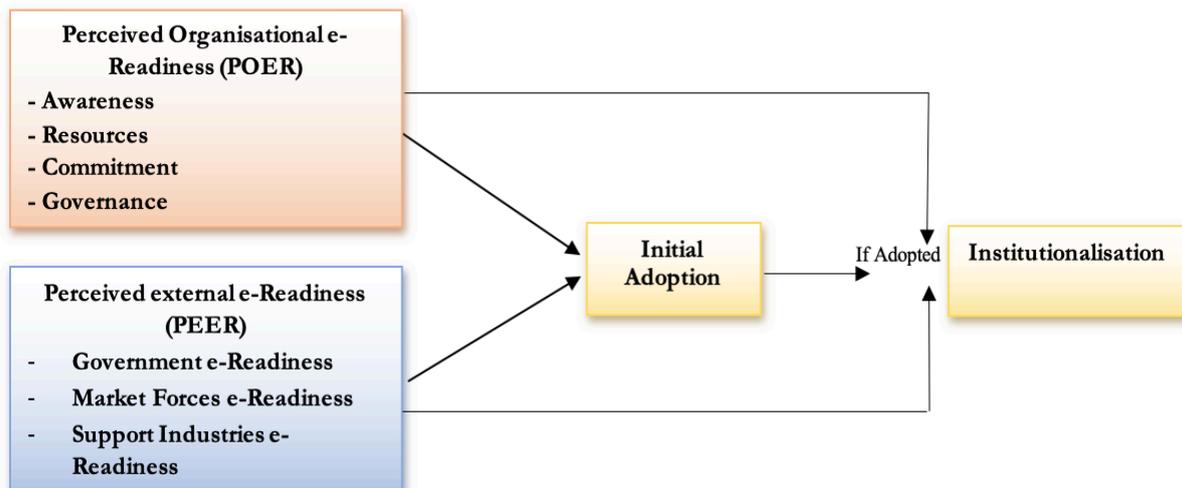
The results confirmed the previous outcomes regarding the main motivating role of Perceived Usefulness in encouraging technology employment. Moreover, results show moderate to high support for the suggested links between the model constructs. The scholars approved that the model only describes 28 percent of the adjustment in utilisation and 72 percent propose the necessity for additional study to include other potential variables such as self-efficacy, individual involvement and contribution, and job characteristics (Venkatesh and Speier, 1999; Al-Qeisi, 2009; Muhammad *et al.*, 2011 and Ramayah, Jantan and Ismail, 2003).

The MM is a useful theory to measure the dynamism of the individual's in accepting the technology innovations as well as in evaluating the organisations' enthusiasm for adopting new technology. However, the limitation with this theory is that the motivating factors are in time and can change during the organisation or individuals' lifetime (Chang and Chin, 2012). There are various scholars that used this theory in conducting their research in technology context (e.g., Waheib, 2016; Dahnil *et al.*, 2014; Sohaib *et al.* 2018; Hamid and Kuppusamy, 2017; Masoud and AbuTaqqa, 2017; Chandra and Kumar, 2018; and Wu and Chen, 2017 etc.). For example, Sohaib *et al.* (2018) used MM and TAM to explain the impact of motivational indicators on E-WOM. They (ibid) found reputation, intrinsic motivation and attitude have a positive impact on E-WOM. Moreover, Nikou and Economides (2017) researched on Mobile-based evaluation used integrated model from TAM and MM factors and found positive impact of motivational indicators on using mobile for e-learning. Thus, this study using this model as a part of preliminary conceptual model to find the influencing factors of E-Marketing adoption.

### **3.2.10 The Perceived e-Readiness Model (P-ERM) (Molla and Licker, 2005)**

The Perceived e-Readiness model (PERM) which was first introduced by Molla and Licker (2005a) is developed for Information Technology adoption by organisations in developing countries. Since companies in emerging countries encounter many issues in comparison to businesses in developed countries (Rahayu, 2015) and different in the organisational and environmental context (Idris, Edwards, and McDonald, 2017). Thus, Perceived E-Readiness Model, provides an effective lens for studying IT adoption in developing countries since it considers the interaction and organisational characteristics that impact the adoption of Internet technology innovations in developing countries (Hassen, Rahim, and Shah, 2019).

Firstly, this theory takes the business's perception, understanding, potential benefits and risks of technology adoption as essential aspects of technology innovation (Molla and Licker, 2005b). Secondly, it comprises of the technology innovation knowledge and the commitment of decision makers within the organisation, which are described by the essential managerial attributes. Thirdly, PERM considers the main organisational elements, such as rules and regulations, adoption process, and business infrastructure, which are known as compulsory features (Molla and Licker, 2005a). Fourthly, researchers who used the model (Tan, Tyler, and Manica, 2017), help to distinguish between non-adoption and adoption in the context of developing countries. Thus, there is a suggestion by (Abdulhakeem, Edwards and McDonald, 2007) that PERM is supporting scholars, in identifying, different outlines of technology adoption in emerging countries, leading to deeper understanding of the reason why some adopters in developing country context are successful or not. Therefore, in regard to E-Marketing adoption, it is not appropriate if a model that was initially established based on business in industrialised countries be applied for business in developing countries. In this model, E-Marketing adoption by firms in developing countries are affected by two variables namely: Perceived Organisational e-Readiness (POER) and Perceived External e-Readiness (PEER) or National e-Readiness (See Figure 3.12).



**Figure 3.12:** Conceptual Model for PERM; **Source:** Molla and Licker (2005)

In this study, the POER refers to:

1. The firm’s awareness, understanding, and prediction of E-Marketing and its potential benefits and risks to organisation (innovation imperative characteristics).
2. The commitment of firms’ managers/CEO (managerial imperative characteristics); and
3. Main organisational elements, including availability of resources, procedures, and business infrastructures (IT, Human Resource, and organisational imperative characteristics).

(Molla and Licker, 2005b, P: 879)

On the other hand, PEER related to evaluation and appraisal, conducted by the firm regarding related external environmental characteristics (national e-readiness), that are known as “environmental imperative characteristics”, “Government electronic-readiness”, “market dynamisms e-readiness”, and “support industries e-readiness” are classified as PEER aspects. Molla and Licker (2005a) highlight that this model can help firms in emerging countries to find, assess and manage risk related to E-Marketing adoption activities.

There are scholars used this model in their studies (Rahayu, 2015; Shemi,2012; Tan *et al*,2007; Idris, Edwards, and Mcdonald, 2017; Houache, Abd Rahim, and Shah,2019). For instance, Tan *et al.*, (2007) confirmed and examined the PER Model in China. They found that most issues of B2B E-Marketing adoption are related with Perceived Organisational e-Readiness and socio-cultural factors. They (ibid) gave credit to this model as it is more complete than previous theories, tests IT adoption institutionalisation, and for its presence of wide external environmental and inter-organisational problems. Moreover, they assert that this model is more applicable for the developing country context than prior models, as it was particularly

developed to take into account circumstantial factors in developing countries (Molla and Licker, 2005b).

Though, they (ibid) underlined that one of PERM's disadvantages is the exclusion of key industry descriptors (e.g., sector, and firm size) (Thong, 1999). Moreover, the incapability to capture employees background (e.g., Education) is another limitation when applying this theory (Aljifri *et al*, 2003 cited in Tan *et al.*, 2007). PERM does not identify the impact of individual attributes in IT adoption, but instead highlights organisational factors as being critical to the development of IT technologies within the firm. Moreover, (Idris,2017; Parker and Castleman, 2009; and Drew, 2003) assert that, despite the usefulness of this model for developing countries context, it is excluding the important industry specifications such as: firm size and the sector and fails to capture firms' characteristics in which operating, that might be critical in determining IT adoption of businesses.

On the other hand, (Tan, Tyler, and Manica,2017; Chen and Chang, 2014; and Hoque and Boateng, 2017) state that this theory integrates aspects such as: culture or socio-economic status to a deeper understanding of individual's needs, whereas, these aspects are covered by TOE framework, therefore, this allows the researchers conducting study in developing country context for the integration of TOE framework and PERM to help as a lens for deeper understanding of various interactions that happen within the organisations and beyond.

### **3.3 Review of the Existing Theories**

Individual's acceptance for the adoption is essential for expansion of new innovation technology (Hassen, Rahim, and Shah, 2019). The terms acceptance is a resentment to the refusal concept and refers to the positive decision of individuals in utilisation of technology innovation (Paul, Parthasarathy, and Gupta, 2017). Decision makers within the organisation need to aware of the problems and issues that influence their decision to adopt and implement a specific system so they would be able to consider them throughout the development phase (Askarzai, 2014). There is a common question among both the academicians and practitioners regarding the reason why users accept or not accept new technologies. Responding to this question might help both groups for designing, assessing, and predicting better techniques and methods for the response of the individuals to the new technology innovations (Ale Ebrahim, Ahmed, and Taha, 2009). There are many technology theories that have been applied and used

in an extensive range of fields to understand and to forecast individual's behavior such as choosing, planning, occupational orientations, consumer's purchase behaviors, computer usage, etc. Numerous scholars studied in the context of technology acceptance and developed models to measure the usage of specific developed and applied technology.

There are numbers of models and frameworks that have been developed to explain individual adoption of new technologies. These models present factors that can have impact on the individual's acceptance. These theoretical models classified into three categories that encompass IT adoption and diffusion which are based on the scope, structure, and focus of the study. Moreover, these theories are mainly predicting a positive link between individual's insights about the IT innovation's characteristics and their behavioral intention at one side, and the potential of organisations in adopting Innovation technologies on the other side whilst external environmental factors have a huge role in ruling the adoption decision. Theories that rooted in the theory of human behaviour are the diffusion of Innovation theory (DOI), theory of Reasoned action, (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), Decomposed Theory of Planned Behaviour (DTPB), Motivational Model (MM), Social Cognitive Theory (SCT), and Model of PC utilisation (MPCU), all are underlining the potential of individual's intention to use the Information Technology Innovation based on the internal and external aspects.

These theories have proven their efficiency and usefulness in forecasting and describing a range of human behaviours in different fields. For instance, SCT, DTPB, TPB, and TRA combine the concept of perceived consequences when predicting behaviour whereas DOI and TAM emphasise only on viewpoints about the technology innovation. DOI, TAM, DTPB and TPB use a unidirectional viewpoint regarding causal relationship, wherein environmental attributes impact on cognitive beliefs, that affect attitudes and behaviours while SCT depends on the bidirectional nature of relationship wherein behaviour, cognitive and emotional variables and environment continually and commonly impact each other (Shih and Fang, 2004). On the other perspective, TPB and SCT theories are alike and theoretically overlap, although they have been adopted more frequently within the research on behavior than has DTPB. The TPB includes all features of the DTPB model, however, includes extra elements that enhance its prognostic power, namely that of social factors and facilitating conditions (Legris, Ingham, and Collette, 2003; and Chuttur, 2009). Correspondingly, there are some overlapping variables between DOI, TOE, and TAM such as complexity and PEU, PU, and

relative advantage (Surendran, 2012). Technology adoption studies regularly theorised feelings as negative or positive impacts such as anxieties (Karahanna, Straub, and Chervany, 1999) and fears (Oliveira and Martins, 2011). Some of the earlier theories' emphasis on internal antecedents of behavior while some others emphasize more on external subjects (Ryan and Deci, 2008).

RBV, and TOE Framework predict a positive connection between external and internal factors and organisational IT usage behaviour. TOE framework explains the impact of environmental factors, an organisation adoption and implementation of a technology innovation; however, they do not explain how these factors impact the development of intention or individual's insights while establishing the intention to use an innovation. The TOE framework is in conjunction with DOI to be able to add the environmental and organisational constructs. To be able to explain how firms deal with rules and policies, and technology legislation depends on the countries' readiness. This theory describes the impact of various variables on actual behavior but not addressing any aspects of firm's performance. Therefore, attention on the increased performance of the firm became vital in IT studies, presented in RBV that focuses on the available resources and marketing capabilities of the organisations that are unique in comparing with other competitors which indeed, leads the firms to a sustainable competitive advantage. On the other hand, PERM, helped the researchers who have conducted and developed models within developing countries, to be able to measure the national and organisation's e-readiness as not all organisations within this context are ready for the adoption and implementation despite of the acceptance of the technology by individuals and organisation.

There are many studies have deployed the traditional models to conduct their studies and there many scholars that combined prior models or add new variable for developing a new model to carry out the previous scholars' study and models. The discussion shows the fact that a particular theory doesn't expansively cover all related problems and cannot help the researcher in solving the problem and development of a theoretical framework to research on the technology innovation adoption and diffusion process of and its subsequent consequence in terms of organisational performance. Thus, there is a need for a combined theoretical framework related to external and internal factors as antecedents of behavioural intention that impact on technology innovation adoption and diffusion with a perspective to address the impact of IT usage and implementation on organisational performance.

### 3.4 Criticism of the Theories

The term adoption is the process where new technology innovations are selected for deploying by either individuals or organisation. As explained previously, there are numerous theoretical frameworks and conceptual models have been combined to examine the adoption and implementation of several technological innovations. There are twelve theories and models that reviewing the user's behaviors and their acceptance capability to employ new technologies based on some constructs and factors. These theories and models have been focused on both the psychological and behavioral perspectives for the individuals of the technology. However, each one of the theories has its limitations that are considered as a reason for the expansion processes of some of the theories and the deployment of others from each other. For, Instance, TPB, DTPB, and TAM are established from the TRA, However, there are still some problems within these theories. Qingfei, Shaobo, and Gang (2008) discussed that there are two key problems related to technology theories; first, each theory employs different expressions in their concepts, but they are basically in the similar concepts. Second, based on the complexity of behavior study and the restriction of the academics, there is no particular theory that covers all behavioral aspects. In other word, each theory has its own boundaries and does not match to each other.

There are many studies conducted on technology innovation adoption in developed and developing countries. Based on the review by Williams *et al.* (2019) on 345 published papers on IT adoption studies from 1985 to 2019 has been found that 83% of these conducted studies were in developed countries, and only 17 percent were conducted in developing countries. Similarly, within the same condition Kurnia *et al.* (2018) found that the existing literature's focus is mainly on developed countries. However, when using the factors and constructs within the theories of technology, there is a need for consideration of the fact that, the application and functionality of each factor varying from one to another country, in terms of cultural, social, economic, political, legal, and infrastructure issues. Thus, an influencing factor within a developed country may not be a determinant factor in a developing country.

The constructs and factors of technology innovation theories are classified into two extensive levels in term of their level of analysis (Hameed and Arachchilage, 2012; Quaddus and Hofmeyer, 2007; Premkumar, 2003; and Frambach and Schillewaert, 2002): Individual level in which focuses on use's behavior toward technology innovation, whereas organisational level focuses on hindering and facilitating variables of the technology innovation adoption. Among

the models that were discussed earlier, some of them are related to either individual or organisational level such as IDT, MPCU and TOE framework and some applied to individual or organisational level. TRA, TAM, TPB, DTPB, SCT are related to individual level, whereas, TOE Framework, PERM, MM, Hofstede's Cultural Model, RBV to organisational level. Based on the findings by Hameed *et al.* (2020), who reviewed of 151 studies, it was found that majority of the focuses is on organisational level rather than individual level. However, there should be an integration of both individual and organisational levels, Since the decision-making process on adoption, rejection, and implementation of IT innovations in firms are made by group of individuals within the firm.

Moreover, technology innovation studies are classified based on the viewpoint deployed, that are the individualist, structuralist, and interactive viewpoint (Hameed *et al.*, 2012). Within the Individualist perspective, a main basis of modification in firms are individuals within the firm. Thus, the focus of this perspective is on the taken actions by individuals. on the other hand, a structuralist, believes that the alterations in firm are determined by organisational attributes, thus the roles of individuals are not considered. However, none of these perspectives not all-encompassing. Thus, the interactive perspective focuses on both angles that allows the scholars to treat all constructs and their interactions in one active framework (Molla and Licker, 2005a). For example, TOE framework is an interactive theory that encompasses many contexts (Sila and Dobni, 2012). Moreover, Since the TOE is criticised for disregarding constructs linked to individual characteristics, such as manager factors (Ghobakhloo and Tang, 2015). On the other word, most of the theories limit their perspective on particular aspects, for example, RBV focuses on incomes and resources and marketing capabilities of the organisation.

Study of the adoption and diffusion of IT innovations from a holistic approach requires the deployment of an integrated model. The presence of a great number of relevant factors increases the goodness of model fit and boosts the variation of the theory explained. It is not unlikely that factors have different impacts in different fields as well as with the number of different factors integrated in the model.

### **3.5 Integrated Models and Theories**

Some studies applied a single model whereas, some others applied a combination of two or more theories. For example, Baker, Al-Gahtani, and Hubona (2007) used TPB in the field of innovation technology application by both private and public sector firms in Saudi Arabia

found that subjective norm, behavioural control, and attitude toward new technology were determinant variables on adoption of new technology. Moreover, Nasco *et al.* (2008) used TPB in the adoption of e-marketing in Chile of 212 firms found, subjective norms and attitude as the significant factors that impact CEO/managers' intention to adopt. Amoako-Gyampah and Salam (2004), Yu and Tao (2009), and Saffu, Walker, and Hinson (2008) applied TAM in a study on ERP, e-market, and E-Marketing in US, Taiwan, and Ghanaian organisations, all found that PU and PEU as significant factors that influence the attitudes of the organisations for adoption.

Having applied TAM and TPB individually, on the other hand, some studies applied a combination of these theories. For instance, Riemenschneider, Harrison, and Mykytyn (2003), and Aboelmaged (2010) applied the combination of both TPB and TAM theories to study influencing factors for web-based marketing and e-procurement found social normative the former, and attitude toward change, PU, subjective norm, behavioral control the latter are determinant factors for adoption, as well as both studies found that the combination of these two theories provided a greater fir rather than either TAM or TBP individually. Moreover, Quaddus and Hofmeyer (2007) combined these two theories with DOI in Australian business found vendor support as a significant predictor of awareness in which it significantly impacts the perceived benefits. Nikou and Economides (2017) researched on Mobile-based evaluation used integrated model from TAM and MM factors and found positive impact of motivational indicators on using mobile for e-learning.

Another example of the studies used single model for their research are the studies by Awa, Ukoha, and Emecheta (2016), and Sheikh, Shahzad, and Ishak (2017) applied TOE framework on their study in the field of ERP solution in Pakistan, E-Marketing in UK, and E-Marketing respectively. Awa, Ukoha, and Emecheta (2016) investigated 12 factors adopted from TOE framework found 6 items of ICT infrastructures, technical know-how, compatibility, values, security, and size of the firm as significant determinants of adoption. Moreover, Sheikh, Shahzad, and Ishak (2017) applied TOE framework used three factors. Other scholars adopted single model of theory for their studies are Boateng *et al.* (2016) applied SCT for evaluating the determinant factors for Internet Banking found websites' social feature, trust, compatibility and online customer services have significant impact on the behavior of customers for adoption, Zhao, Naidu, and Wallis (2019) used SCT on their study on E-Government adoption in United Arab Emirates found that the adoption is influenced by reciprocal interactions of all three elements of SCT, and Tesai *et al.* (2017) applied DTPB on Mobile Marketing adoption,

found attitude, subjective norms, and perceived behavior control have significant impact on the adoption phenomenon.

On the other hand, there are many studies applied a combination of two or more theories within their studies. For example, Tripopsakul (2018) applied TAM-TOE Framework for Social Media Marketing adoption in Thailand found that all three contexts had a significant impact on the adoption of social media marketing by means of PEOU and PU as mediating variables. Lee (2016) used an integrated model TRA and TOE in Taiwanese firms' Cloud ERP found attitude, system quality, financial benefit, trust, and industries pressure impact the adoption decision of firms in Taiwan. TAM, TPB, and Intrinsic Motivation (Motivational Model, combined by Muhammad *et al.* (2011) to find the determinant factors of Social Networking Site in Malaysia. In their study, they found that both TAM and TPB were significant and supported the usage of IT. Finally, Hajiyevev and Chang (2017) combined SCT and TAM to develop an integrated model for adoption of Mobile Banking adoption in Azerbaijan and Turkey. In their study, it has been found that PEU, trust, compatibility with lifestyle, and online customer service are significant factors affecting the adoption intention in both countries.

Many variables and their relationships have been suggested and argued in which factors that were found to be significant by one researcher were not always found to be important by other researchers due to the dependency of the study findings on the environmental, political, cultural and socio-economic situations of the targeted countries (Sameni and Khoshalhan, 2009). Reviewing the extant literature and various single or integrated models of new technology in both developed and developing countries suggests that the predominant theoretical models, when utilised individually, does not provide a lens to clarify the circumstantial problems of firms in developing countries and those single theory models are independently inadequate in rendering justifications (Wymer and Regan,2005). Furthermore, it also seemed from the extant literature that there is no agreement which theory can adequately explain IT adoption of developing countries (Idris, 2017). In other word, there is no single available dominant model among the more regularly applied theoretical models such as MM, SCT, RBV, DTPB, TRA, TPB, TAM, Combined TAM-TPB, TRA, UTAUT, TOE, or Combined TOE-TAM and PERM are appropriate for investigating the adoption of Innovation tools by firms (e.g. Rabie,2013; Rahayu and Day, 2015; Idris, 2017; Hoque and Boateng,2017; and Yeng *et al.*,2015) However, combination of some theories would suggest a deeper theoretical perspective for understanding the adoption of IT innovations by firms in developing countries (Rabie,2013; Venkatesh and

Brown,2001; and Awa *et al.*,2015). Thus, studies recommended to add more constructs within the study, the researcher need to integrate two or more theoretical models to overcome the limitations of these theories and to provide all-inclusive explanations of technology adoption.

### **3.6 Theories Underpinning the Research Area**

The research of E-Marketing adoption will be broader with the adoption of an all-inclusive approach. Therefore, the integrative conceptual model seems to signify an appropriate hybrid approach describing the concept currently. More than one theoretical approach is essential for a comprehensive understanding of the problems involved. For the last three decades, academics have intended to comprehend, predict, and explain the influencing factors of technology adoption at both individual and organisational levels (Abbasi *et al*, 2015; Abu Tair Abu-Shanab, 2014; and Venkatesh and Zhang, 2010). Many of the developed behavioural theories focused on behaviour itself more than the individual context. As a result, many technology theories have been developed and utilised to use the factors and mechanisms of individual's adoption decisions and behaviours as well as organisational contexts. Moreover, majority of studies integrated only two models and theories of new technologies, however as explained earlier, each theory represents a certain context for example, RBV'S focus is on incomes and resources within the organisation but not on individuals within the firm or their behaviour, TOE's focus is on three contexts of technological, organisational, and environmental but there is no focus on managerial/individual context etc. An organisation may have enough resources for adoption, but the individuals may not accept the technology innovation or have lack of knowledge, or even the issues be related to environmental context. Therefore, for a broader and all-inclusive outcome, there is a need to add more perspectives and constructs. This issue has been discussed by Kuivalainen *et al.* (2012) recommended that of new technology is still scant.

Eminent scholars such as Rahayu and Day (2015); Ohunmah (2015), Shemi (2012), Rahayu (2015), Alrousan (2014), Muhammad *et al.* (2011), Hassen, Rahim, and Shah (2019), Shaharuddin *et al*, (2018), and Rabie (2013) suggest that future studies may combine theories to understand technology adoption concept in developing countries. For example, Rabie (2013) reviewed contemporary empirical study on technology innovation adoption on firms and found this phenomenon is best understood holistically by combining key theoretical frameworks including TOE, RBV, DOI, TAM. Previous studies (e.g., Rahayu and Day, 2015; Shemi, 2012; Rahayu, 2015; Ohunmah 2015; and Alrousan, 2014) adopted an integrative model to

understand the impact of managerial/individual related factors on firms' owners/ managers' decision for adopting new technology innovations in developing countries context. Furthermore, Qashou (2017), El-Gohary (2009), Lee and Tsai (2005), Mathews *et al.* (2019), Setiowat (2015), Al-Somali (2011); Hussein (2010), Iddris and Ibrahim (2015), Bharadwaj *et al.* (2013), Brodie, Winklhofer, Coviello, Aljowaidi (2007), and Azam (2014), Similar to this study, examined the relationship of the influencing factors of technology innovation with the marketing and organisation performance. This study deploys Ramsey and McCole (2005) and El-Gohary (2009) studies that investigated on the determinant factors of electronic business adoption of SME firms in New Zealand and the impact on the current and future level of electronic business adoption, and E-Marketing adoption of Egyptian SMEs and its impact on current and future marketing performance respectively. This study also employs Rabie (2013)'s study, who investigated the influencing factors of E-Commerce adoption in Egypt using triangulation methodology and integrating four theories of technology adoption (TOE Framework, DOI, RBV, and TAM).

### 3.7 Chapter Summary

One of the main purposes of this study is to identify the determinant factors affecting the adoption of E-Marketing by distribution firms. For achieving this aim, the researcher reviewed various theories of new technology adoption such as the Theory of Reasoned action (TRA), the Theory of Planned Behavior (TPB), the Decomposed Theory of Planned Behaviour model (DTPB), Technology Acceptance Model (TAM), the Diffusion SCT), Resource-Based View (RBV), Perceived e-Readiness model (PERM), and Model of PC utilization (MPCU) were presented and discussed as well as each theory's limitations were discussed based on the previous scholars' criticism.

The summary of the limitations of the discussed theories:

**TRA:** the main restriction of the theory is the correspondence. This theory is very general with few variables to discuss on the behavioral intention. TRA not designed for an individual behavior or technology, and it is not forecasting a particular behavior or approach.

**TPB:** An extension of the limited TRA, offers that the behaviors are intentional by adding the perceived behavioral control construct. TPB does not express the planning mechanism of users and how it narrates to TPB with no reference to other factors that influenced on behavioral intention and motivation. Moreover, TPB does not consider the environmental contexts that may affect the users' intention to implement a behavior.

**DTPB:** It decomposed the concepts of TPB. It is undistinguishable to TPB. It still has the similar limitation as TPB with the indication of the behaviors are already planned.

**TAM:** provides feedback on PU and PEU But, doesn't provide any feedback on variables that might increase the adoption. Moreover, it does not specify how expectations are affecting on behavior, and like previous models, cannot predict individual behavior within culture.

**MPCU:** effective model for understanding and describing the PC acceptance and adoption behavior but the perceived complexity has computer and technology adoption and an indirect influence on short-term consequences.

**DOI:** it does not explain on how the attitude impacts on accepting or refusing the decisions, or how innovation variable impact on decisions. Moreover, this model does not consider a user's resources to adopt the new performance.

**MM:** this model's application on technology utilisation and acceptance is not effectual and still needs many variables to be deployed by MM to become more appropriate to study technology usage.

**SCT:** this theory is not intensely organised, particularly when studying the relations between individual, environment, and behavior and is not clear yet, which one of these are more powerful.

**PERM:** the exclusion of key industry descriptors (e.g., sector, and firm size), the incapability to capture employees background (e.g., Education), unable to identify the impact of individual attributes in IT adoption. This model is also failed to capture firms' characteristics that might be critical in determining IT adoption of businesses.

**RBV:** RBV does not describe the adoption decisions of companies and assumes that resources in a firm will be deployed to its full potential.

**TOE:** it has a high degree in terms of factor choice; however, the initial TOE framework was proposed for firms in developed countries as most of the primary streams of studies using TOE were in developed countries, but the usage of technology innovations specifically in developing countries are vary from those in developed countries due to different socio-cultural, environmental, political, and economic backgrounds.

By reviewing these theories, the study exposes several research gaps in the existing study field, which includes: i) theories utilised in prior studies relatively focused on particular perspective to understand the context of new technology innovation adoption. Therefore, a holistic approach is required to understand determinant factors influencing the distribution firms' E-Marketing adoption in several perspectives; ii) many prior research widely concentrated on

electronic-commerce and electronic business and the focuses on sectors were scattered and there was no single sector found to be adopted in two studies. Future researchers should concentrate more on understanding a particular innovation technology adoption of a specific sector to gain a deeper understanding of the different industries' issues; iii) Majority of studies, although focused on various perspectives for the adoption of new technology, However, few studies integrated more than two theories of new technology, future studies need to focus on integrating more than two theories of new technology to be able to study the determinant factors and the reasons for adoption or non-adoption from broader perspectives; iv) the IT related studies are conducted in different period of times, this made the results be effective in time, and the a factor that may be as a determinant factor may not be effective in another time. Moreover, the adopted theories of new technologies and factors in developed counties may not be influencing factors and useful theories in developing countries, even if conducted in the same sector or the same study field; and v) the mere adoption of Information Technology by organisations does not essentially discuss benefits as these would only be attained by its successful usage.

In conclusion, 1) each research focuses on some certain variables and ignores the other factors, depends on what is the research problem; 2) on research not be able to collect all variables at once, due to a large number of variables that cannot be examined in one study at the same time; 3) the outcomes of any research of any country cannot be applied to another country, which means that the outcomes cannot be generalized to other countries since, each country has its own characteristics and the level of adoption; and 4) some of the variables within the theories of new technology can only be confirmed after the implementation of the technology innovation tools, which means that they cannot be examined in developing countries that have not implemented it yet.

Based on the previous discussion above, on the gaps and the findings of the extant review of literature related to the new technology theories, this study found that there is a need to integrate more theories and to add more constructs to overcome the limitations of the theories and the literature, provide all-inclusive explanations of technology adoption, and to gain in a holistic approach towards investigating the determinant factors of E-Marketing adoption in distribution industry.

## **Chapter 4: Determinants of Distribution Firms' E-Marketing Adoption**

### **4.1 Introduction**

Technology innovations are greatly discriminated technologies as no single projected adoption model is all-inclusive; and implementation takes place after many variables had been sensibly measured. They are compound, risky, and combined systems that shift organisations' competitive advantage focus to knowing and dealing with the critical factors. The aim of this chapter is twofold: first, to explain the particular individual, organisational, technological and environmental variables that could promote or delay the adoption process in an organisational setting; second, to stimulate the study on the subject by providing a preliminary conceptual framework that would be the foundation for any empirical analysis. Later these determinant factors will be examined and tested.

Based on the several knowledge gaps found within the study area of E-Marketing adoption of distribution firms (as discussed in chapter two), chapter four is concerned with the review of extant literature on determinants of distribution firms 'E-Marketing adoption. The term 'determinants' will be deployed when discussing to antecedents, drivers or factors impact on distribution firms' decision to operate in online activities. Issued articles within the extant literature were stratified according to themes as these themes that could determine gaps in contemporary knowledge. These subjects comprise of the literature on determinants of E-Marketing adoption among distribution firms: i) according to nature of study (either empirical, conceptual or literature review); ii) including internal factors of the organisation's attributes and individual's characteristics; and iii) involving external factors of the firms (such as environmental and technological attributes); This chapter ends with a summary of the literature on the determinants of business E-Marketing adoption and more clarification upon knowledge gaps found.

### **4.2 Determinants Factors of E-Marketing Adoption**

The adoption of technology innovation is predicted to have an important role in the marketing performance or effectiveness of the adopting within the business. By reviewing the extant literature and the theories of new technology, this adoption resulted into four contexts of: individual; organisational; environmental and technological contexts that assumed to influence

the rate of this adoption (Damanpour, 1991). There are many scholars that studied on determinant factors of new technology adoption and categorised the factors depends on the nature of the study and research problem into various categories. For example, Ein-Dor and Segev (1978) studied on the organisational contexts that impact on the success of Information Systems. They organised the variables into three groups as uncontrollable; partly controllable; and controllable. Moreover, Rogers (1995) studied the impacts of innovation characteristics on the adoption and diffusion of IT, However, in order to find new variables, some other researches such as Frambach *et al* (1998); Al-Qirim, (2007); Thong (1999); El-Gohary (2009); and Scupola, (2009) examined other methods by offering more wide-ranging frameworks to study the adoption of IT. It was assumed that a new technology innovation, such as internet, was extremely technological and complicated in nature since it relied on shifting PC technology processes into manuscript; images; or records. Moreover, it was complicated since it was a combination of various dissimilar technologies and numerous innovations (Houghton and Winklhofer, 2003). The adoption of IT related technologies by firm could be recognised from two forms of organisational adoption decisions: the decisions made by CEO/manager (individual), within a company, the decision by a firm. Each form has its own variables that could impact on changing the direction of the decision (Frambac and Schillewaert, 2002).

Based on the prior discussion, there are many factors has been identified by reviewing the extant literature that might predict E-Marketing and technology adoption. These factors were classified in four contexts: 1) environmental factors (external and uncontrollable factors); 2) individual factors (internal and partially controllable factors); 3) organisational factors (internal and partially controlled factors); 4) technological factors (external and uncontrollable factors), and 5) Legal and Regulatory factor (external and uncontrollable factor). The following section discusses prior studies that attempted to classify the factors related to the firms' adoption of new innovation technology and might be determinant factors of E-Marketing adoption of distribution firms. These factors are borrowed and adopted from the reviewed theories of new technologies in Chapter three.

#### **4.2.1 Environmental Factors**

The business environment of the firm is a main force that can inspire or hinder an organisation to adopt technology innovation (Rogers 2003). Environmental attributes relate to the

surrounding atmosphere of the firm that facilitate or hinder the decision of technology innovation adoption. The external environment of the firm can be seen as the ambiance, that a firm conducts its business through and been used by many scholars (e.g., Rahayu,2015; Rabie, 2013; Shemi,2012; Ilin *et al.*, 2017; Abualrob, 2016; Osakwe *et al.*, 2016; and Van *et al.*, 2012; El-Gohary,2009; and Zhu *et al.*, 2002). The capability of any firm to deploy and implement a technology innovation in its process is reliant upon a technology-based innovation in its operations is dependent upon the requirements and commands of its environment (Awa *et al.*, 2010; and Grover and Goslar, 1993) that is generally in continuous change. The external environment of the company entails of various factors that either positively or negatively impact the adoption process of the firm (Sophonthummapharn, 2008) or are outside the instant and long-term control of the organisation.

The environmental attributes have both restrictions and opportunities for technological innovations (Chau and Tam, 1997). Firms, to be able to overcome the compound and fast changing environment, need to adopt technology innovation (Pfeffer and Leblebici, 1977). It has been recommended that for the organisational achievement, there must be a better understanding between the environment and the organisation's competencies. Ward *et al.*, (1995) suggest that the fit between these two aspects is very appropriate since, the environment is the basis for various organisational unexpected challenges that as a result, need active, incessant, and reliable managerial consideration and policies to overcome.

Many factors found in various studies as significant environmental factors that impact the technological innovation adoption. For example, Dholakia and Kshetri (2004) found national infrastructure and business environment positively influence the E-Marketing adoption. Moreover, (Erumban and DeJong, 2006; Srite and Elena Karahanna, 2006; Straub, 2004; Hofstede, 2001, Veiga *et al.*, 2001, etc.) found national culture as influencing environmental factor impact on the ICT adoption. Crum, Premkumar, and Ramamurthy (1996), Iacovou, *et al.* (1995), Alamro and Tarawneh (2011), Ghobakhloo *et al.* (2011), Zhu *et al.* (2003), Scupola (2003), Sparling *et al.* (2007), and Hung *et al.* (2011) found competitive pressure; Scupola (2009), Molla and Licker (2005), Ifinedo (2014), Al-Qirim (2006) found customer pressure; Plana *et al.* (2004) supplier pressure; Rahayu (2015) found external pressures (competitor and customer), and external support; Rahbi (2017) found market scope, competitive pressure, and family and friends' support; and Abou-Shouk (2012) found external pressures as the influencing factors of technology innovation adoption. Findings from the majority of

researches indicate that the environmental attributes significantly influence the extent and the adoption of ICT among organisations.

This study tried to group the environmental factors, in a systemic way, to examine every possible variable that might influence the distribution firms' adoption of E-Marketing. The following Table 4.1 shows a summary of environmental factors identified in the review of extant literature. The next section presents the potential environmental related factors that might impact on the adoption of E-Marketing of distribution firms.

**Table 4.1:** Summary of Environmental Factors Identified in the Reviewed Literature

| <b>N</b> | <b>Factors</b>  | <b>No. of Studies Used the Factor (s)</b> | <b>The Related Theory</b>          |
|----------|---|---|------------------------------------|
| 1        | Government Policy Support (e.g., Financial Funding Opportunities) | 31 Studies                                | TOE Framework                      |
| 2        | External Pressures (Pressure from Competitors, and Industry)      | 43 Studies                                | TOE Framework                      |
| 3        | The Business Partner Affiliation                                  | 13 Studies                                | TOE Framework                      |
| 4        | Economic Downturn   | 4 Studies                                 | TOE Framework                      |
| 5        | External Pressures (Pressure from Customers/Suppliers)            | 31 Studies                                | TOE Framework                      |
| 6        | National E-Readiness  | 29 Studies                                | Perceived E-Readiness Model (PERM) |
| 7        | External IT Support   | 26 Studies                                | TOE Framework                      |
| 8        | Technology Vendor Support   | 10 Studies                                | TOE Framework                      |

#### 4.2.1.1 Government Policy Support

Governmental support is useful for firms as they can protect the involved parties within the business deals, if the organisation or the customer, control the utilisation of the internet to make it a protected mean of transaction, and also offer motivation for firms to deploy e-procurement in their transactions (Zhu and Kraemer, 2005). Zhu and Kraemer (2005) found that firms that do their business activities in an environment of limited government rules appear to have low degree of adoption. Moreover, government can also use their control to drive firms in adoption of a certain internet technology. For example, in 1997 the US government, to response the 'paper reduction act', ordered to federal agencies to modify their systems into electronic commerce (Kuan and Chau, 2001), thus any businesses that intended to create a business link with the federal government had to adopt such technology. According to Scupola (2003) government support can be ease in business policies, support of firms in term of financial and technological support, developing IT infrastructure, or legislating satisfactory E-Marketing laws.

According to the Australian Industrial R&D Inducements Board (1985, P.5) governmental support is a series of activities undertaken by the authorities to provide an appropriate atmosphere for both individuals and organisations to inspire the adoption of technology innovation which could be both grants or decreases or information on organisational trading or making a compulsory infrastructure that have to serve both cases (Castleman and Swatman, 2000). Government components were measured to be one of the most effectual official forces affecting the adoption of technology innovation (Nelson and Soete 1988). Wong (2003) asserted that dynamic government strategies and rules had a significant impact on the adoption of information technology in Singapore. Though, the lack of such support could be a significant inhibitor on the adoption of new technology innovation (Goh, 1996). As demonstrated in prior studies, this factor was found as one of the basis factors in new technology adoption by organisations (Li *et al.*, 2010; Zhu and Kraemer, 2005; Looi,2005; Martinsons, 2008; Zhu and Thatcher, 2014; Oxley *et al.*, 2001; Zhao *et al.*, 2007; and Shih *et al.*, 2005; Ohunmah,2015; Stylianou *et al.*, 2003; Alsaif, 2013; Al Adwan, Aladwan, and Al-Adwan,2019; Sheikh, Shahzad, and Ishaq, 2017; Erum, Rafique, and Ali, 2016; and Awiagah, Kang, and Lim, 2016).

#### **4.2.1.2 External Pressures (Pressure from Competitors, Business Partners, and Industry)**

External pressure was recommended by many scholars as an important factor for technology adoption (Gibbs and Kraemer, 2004; Grandon and Pearson, 2004; Looi, 2005; Scupola, 2003; Wang and Cheung, 2004; eekhuyzen *et al.*, 2005, Hung *et al.*, 2011, Ohunmah,2015; Al-Somali,2011; Hussein, 2009; Abou-Shouk *et al.*, 2012; Alrousan,2014; Rahayu,2015; Shemi,2012; and Warnaby *et al.*, 2008). External pressure in general refers to the dominant pressures from outside of the firms' environment (Chau and Hui, 2006; and Iacovou *et al.*, 1995). Some studies noticed that some companies adopt technology innovation, only when they feel high industry competition and when need an immediate business benefit since, they might be under pressure from competitors, industry, or business partners (Gibbs and Kraemer, 2004; and Kula and Tatoglu, 2003). Here, the Competitive pressure refers to the power on a company to deploy a technology innovation to prevent being outcompeted by its own industry competitors (Iacovou *et al.*, 1995). Porter (1985) discusses that Information Technology innovation impacts the business competition by changing the industry structure and changes the policies of competition, making competitive advantage by providing firms with new techniques to outperform their challenging, and spawning the entire businesses, regularly from inside an organisation's current functions (Porter, 1985, P:150).

The apprehension of being left behind is a pressure, and the degree of competition within the industry affect the degree of pressure on firms to adopt new technology (Bigne *et al.*, 2008; Patricia, 2008; Teo *et al.*, 2009; and Ifinedo, 2011). In this case, for example, Schware and Kimberley (2013) state that many firms in developed countries, accept new suppliers only if they can show their adoption capability. When a firm's competitor starts to deploy E-Marketing technology, other organisations will be required to respond and to use the innovation technology more broadly to acquire competitive advantage. Therefore, the higher the level of competition in industry, the greater the firm will pursue to achieve a superior use of technology innovation (Zhu and Kraemer, 2005).

Reacting to competitors is often perceived as a reason for adoption among firms (Simpson and Docherty, 2004, Ghobakhloo *et al.*, 2011). Prior studies have supported that external pressure from competitors, industry and business partners has a significant relationship with the intention to adopt E-Marketing (Morteza *et al.*, 2011; Tiago and Maria, 2010; Dholakia and Kshetri, 2004; Bayo-Moriones and Lera-Lopez, 2007; Fillis *et al.*, 2004; Azam, 2014; Kartiwi *et al.*, 2018; Shaltoni, 2017; Matikiti, Mpinganjira, and Roberts-Lombard, 2018; Desalegn, 2019; Qashou and Saleh, 2018; Sheikh, Shahzad, and Ishaq, 2017; Abou-Shouk, Lim, and Megicks, 2016; and vein, Li *et al.*, 2011). For example, Dholakia and Kshetri (2004) found that the impact pattern of pressure differs in different stage of adoption. The external pressures from competitors found to have a positive significant impact on adoption of internet technology and the new technology application was relied upon the degree of confidence (at 90% and higher) of the adopter. Therefore, this factor was found to significantly impact both adoption and implementation of E-Marketing adoption while other factors such as market found to have limited impact.

#### **4.2.1.3 Business Partner Affiliation**

Another influencing factor that might impact the adoption and implementation of new technology is the business partner affiliation (Parker and Castleman, 2009) who may be the firms' suppliers or customers (Wilson *et al.*, 2008). The development of firms is extremely flourishing through business partnerships. The term affiliation is where two or more organisations make a tie to control and profit from each other. The external parties such as suppliers/customers help firms to develop and increase market particularly when it comes to adoption of IT technologies to substitute traditional methods of businesses (Billal, Shin, and Sim, 2019). The presence of a business partner is even more appealing for circumstances where

there are no trusted alternative and substitute partners within the industry. Business partner relationships are generally represented from the suppliers or customer's perspectives. Firms will usually want to develop and deepen a business relationship with the aim of establishing a long-lasting business partnership (Castleman, 2004). This idea works well if the business partner identifies the strategic value and competitive advantage that be able to bring to both parties. Wilson *et al.* (2008) in a UK based study, found customer/supplier demand as a significant factor that will necessitate the adoption of technology innovations to be able to improve the value chain efficiency.

In the B2B marketplace, social relationships between buyers and sellers can open up room for information technology adoption or opportunities for development and faster growth. Prior study conducted in South Africa have indicated that some companies may not adopt technology innovations due to the peculiar business nature and characteristics of certain industries such as the agricultural industry (Humphrey *et al.*, 2003) and clothing industry (Moodley and Morris, 2004). The closed nature of such industries does not require the necessity to undertake business on the open Internet, as all investors and stakeholders are within a closed market system (Humphrey *et al.*, 2003). Any decision to adopt IT technologies will have to be considered together with other stakeholder's position in the market system. This factor has been used by few scholars and found that has positive impact on the technology innovation adoption (Chiu, 2017; Ghobakhloo *et al.*, 2011; Lin, 2014; Le *et al.*, 2012; Li *et al.*, 2010; Chong, 2008; Standing, 2006; and Teo, Lin and Liang, 2007).

#### **4.2.1.4 Economic Downturn**

Firms with better economic prosperity, devote more of their capital in technology innovation and have available money for Information Technology investments (Chwelos *et al.*, 2001). Thus, they can take more risks and can effortlessly engross the failure costs (Aiken and Hage, 1971; Nystrom *et al.*, 2002). In fact, capital offers economic safety in hard times and protection in contradiction of financial trauma. Teo and Ranganathan (2004) conducted study to test Web-based B2B internet adoption in Singapore and found that 53 percent of companies had adopted; out of this, two-thirds had a proper for further implementation of the adopted technology. Furthermore, they (*ibid*) state that the issue of economically justifying E-Marketing investments was an important subject in which the economic downturn of 2000–2003s period had significantly boosted the source limitations on organisations universally.

Likewise, Cragg and King (1993) found that economic prosperity influenced the company's capability to adopt information technology. Another example is regarding the economic downturn 2001 in Malaysia resulted to a fall in the IT sector (Malaysian Economic Report, 2003). Indeed, economies with the absence of a dissimilar industry base or skilled staff have been negatively influenced by the economic downturn. However, Forrester (2008), has suggested that in some countries, the use of new technology innovations was increased due to the economic downturn, to fight the slump and deal with the fluctuations they have witnessed.

#### **4.2.1.5 External Pressures (Pressure from Customers/Suppliers)**

Another external pressure found in the literature, was the pressure from the existing and potential customers and suppliers that generally expected the company to have an acceptable internet technology tool and a useful website (Gibbs and Kraemer, 2004; Looi, 2005; and Mehrtens *et al.*, 2001). Customers' pressure is an environmental factor arise from the incessant demand for better quality product/service (Poon and Joseph, 2001) and from the current customers (Beckinsale and Levy, 2004, Beekhuyzen *et al.*, 2005, Bigne *et al.*, 2008, and Dyerson and Harindranath, 2007). The advance and upgraded programmes run by suppliers, the necessity to acquire new suppliers, and boosting the performance are the main reasons of technology innovation adoption of firms (Vrana and Zafiroopoulos, 2006, Ahmed *et al.*, 2011; and Quayle, 2002). Fast growth within the industry, developing markets and demands from suppliers and customers are all named as vital pressures motivating technology adoption in firms (Simpson and Docherty, 2004, and Teo *et al.*, 2009).

In most cases, both customer and supplier have influence to pressure a company to use a specific kind of technology. For instance, international companies regularly drive their branches, suppliers, and customers to adopt a specific technology innovation to connect to a universal production system such as driving their suppliers to adopt wireless tracking technology (Li *et al.*, 2010 and Iacovou *et al.*, 1995). They (*ibid*) also discuss that the more the pressure from customers/suppliers, the more likely the firms to deploy certain information technology to sustain their competitive advantage, as firms often depend economically on their suppliers to survive (Duan *et al.*, 2012). Several studies have found the pressure from customers/suppliers as one of determinant factors in adoption of E-Marketing technology (Hung *et al.*, 2011; Huy *et al.*, 2012; Ifinedo, 2011; Kurnia *et al.*, 2009; Kartiwi *et al.*, 2018; Shaltoni, 2017; Matikiti, Mpinganjira, and Roberts-Lombard, 2018; Desalegn, 2019; Qashou and Saleh, 2018; Sheikh, Shahzad, and Ishaq, 2017; Abou-Shouk, Lim, and Megicks, 2016; Le

*et al.*, 2012; Li *et al.*, 2010; Chong, 2008; Mehrrens *et al.*, 2001; Mirchandani and Motwani, 2001; Iacovou *et al.*, 1995; Martins and Oliveira; 2008; and Ottesen and Gronhaug, 2004).

Indeed, the decision to deploy web related services is affected by the Technology innovation is already adopted or rejected and by those associated to organisations that allow the produce, distribute and employment of goods/services. This is specifically accurate when adoption happens in the same industry sector. For example, Abrahamson (1991) found that prior adopting firms may offer information about the expenses and benefits of adoption that may stipulate a motivation for future use when CEO/managers are concerned about continuing justice.

#### **4.2.1.6 National E-Readiness**

Country 's electronic readiness (e-readiness) is another critical factor that should be considered to ensure that E-Marketing applications can be used by organisations. E-readiness refers to the ability of an economy to adopt IT technologies to shift from the traditional business strategies into the new economy (Bui *et al.*, 2003, P:5). The level of e-readiness can be assessed by the accessibility to required physical infrastructure (e.g., high bandwidth, consistency, and reasonable prices), transportation and banking infrastructure, and skilled staff (Bui *et al.*, 2003; CID, 2002). Developing countries have been considered as slow adopter of technology innovations and many scholars discuss that this is partially due to their low level of e-readiness (Dholakia *et al.*, 2002; Travica, 2002; Josanov *et al.*, 2009). within the PERM model, the national e-readiness defines to the e readiness of market services, the government, and the supporting agencies as well as customers and end-users.

The review of the extant literature indicated that IT applications diffused rapidly in industrialised countries, but slower within developing countries' context, which in fact, led the countries to a gap in Internet technology adoption and implementation between the well-equipped developed countries and ill-equipped developing countries (Hinson and Sorensen, 2006; and Johnston and Acquaah-Gaisie, 2001). Moreover, the level of broadband penetration is another element in defining the national e-readiness of a country (Stewart *et al.*, 2002). Studies by Molla (2006), Molla and Licker (2005), Xu *et al.* (2004) have reported that the reason of slow diffusion of the internet technology innovations in developing countries is the poor IT infrastructure, inadequate IT human resources, the high cost of access, and high expenses of hardware. In fact, the low broadband penetration in the leads the firms to cooperate

with business partners and provide an improved service for their customers (Rodríguez-Ardura *et al.*, 2008; Ansari and Mela, 2003). Moreover, Peng and Kurnia (2008) emphasise that for firms in developing countries, the technology innovation adoption will need to be supported by substantial investments on infrastructures such as the public transportation and telecommunication system on the national level.

The IT skills and knowledge of the individuals is found as another indicator that shows the level of national e-readiness (Karanasios and Burgess, 2008). In-overall, factors such as IT skills and knowledge, the level of broadband penetration, and lack of intra-regional infrastructure are elements that have impact on the level of national e-readiness. (Raven *et al.*, 2007). This factor derived from the PERM model and only few studies (Chen and Chang, 2014; Aldwsry, 2013; Abdulhakeem, Edwards, And McDonald, 2017; Idris, Edwards, and McDonald, 2017; Al-Somali, 2011; Ramd ani *et al.*, 2013; Shah Alam *et al.*, 2011; Le *et al.*, 2012; and Thi, 2011; Oxley and Yeung, 2001; Hussein, 2009; Abou-Shouk *et al.*, 2012; Alrousan, 2014; Azam, 2014; Ali and Abbas, 2019; Qashou and Saleh, 2018; Twi-Brempong *et al.*, 2019; Ahmed and Hasan, 2016; Hassen, Rahim, and Shah, 2019; Nigussie, 2019; Akanbi, 2016; and Ahmed Sheikh, Shahzad, and Ku Ishak, 2016) examine its influence on the adoption of technology innovations. Therefore, this factor will be used as one of the possible factors that likely affect the adoption decision among firms.

#### **4.2.1.7 External IT Support (Technology Consultants' Involvement)**

Rapid growths of ICTs are making it challenging for many firms to manage the increasingly compound IT function (Yates and Benjamin 1991; Scott Morton, 1991). As the Information Technology applications become more complex, many firms in need of relying on external consultants who knowledgeable on state of technologies (Gable, 1996). Use of IT consulting as a professional service helps managers to evaluate and resolve practical issues within the organization in the fastest time as well as improve the organisational performance. Studies (Apulu and Ige, 2011, Chen and McQueen, 2008, Stansfield and Grant, 2003a, Mohanna *et al.*, 2011) found that there is a lack of guide and support for adopting technology innovation, mainly in the contexts related to which technology applies to the firm, what and how to adopt. Moreover, firms in developing countries context would naturally have to rely on external support and resources to be able to manage their websites and business (Warden and Tunzelana, 2004). Relying on technology consultants, they could be considered as a type of external support for firms that aims to use internet technologies in their businesses or the firms that wish to upgrade their technology innovations to higher level of adoption. A lack of

successful and confirmed business models is a key factor behind firms' unwillingness to adopt new technology and their need of external support and IT consultants (Zheng *et al.*, 2004). This factor is also another influencing factor of technology innovation adoption, found by several scholars (Apulu and Ige, 2011, Dutta and Coury, 2003, Hung *et al.*, 2011, Lawrence and Tar, 2010, Scupola, 2009; Swanson, 2010; Weigelt and Sarkar, 2009; Dahnil *et al.*, 2014; Mzee, Ogwen, and Irene, 2015; Farghadan and Golkala, 2014; Baoling, 2014; Chiu *et al.*, 2017; Li, 2008; Al-Somali, 2011; Morteza *et al.*, 2011; MacGregor and Vrazalic, 2006; Hock-Eam, 2011; and Chiu *et al.*, 2017) to have a significant and positive impact on technology usage and implementation.

The main support of technology consultants is suggesting particular IT skills to increase internal aptitude, offers extra resources to cover ultimate necessities, and when needed, to assist businesses to apply effectual IS (Thong *et al.*, 1994). As well as the analysis of the required information for the business needs, recommending appropriate hardware and software, and leading the implementation of the IS (Thong *et al.*, 1994). In fact, IT consultants obtain knowledge and understanding from their communication and collaboration with various client firms (Robey *et al.*, 2000) and consider as the mediators between the technologies and the clients (Weigelt and Sarkar, 2009). Huber (1991) and Slater and Narver (1995) discuss that obtaining second-hand knowledge from individuals outside of the firm is likely to be a significant factor for the organisation's learning process. In fact, firms' learning or improving their understanding is a main consequence of using external IT consultancies (Gable, 1996).

#### **4.2.1.8 Technology Vendor Support**

Technology support from merchants is also an important factor in IT technology adoption of organisations (Morteza *et al.*, 2011; and Al-Qirim, 2007). This is sensible due to some firms' lack employees, particularly related to IT and lack financial resources to employ, staffs with enough IT skills from external advisors. Therefore, to overcome this problem, the accessibility of information technology support from merchant can be pondered as an efficient way for firms in the adoption of E-Marketing. In the research conducted by Al-Qirim (2007), technology vendor support was found as a significant determinant factor in extranet marketing /VPN adoption by firms in New Zealand. A similar outcome also found by Morteza *et al.* (2011) and Li *et al.* (2010).

#### **4.2.2 Individual Factors (Internal Related Factors)**

Individual/managerial factors are considered to be significant factors that influence the direction of the information technology adoption as a part of organisational context that contribute to the achievements from technology innovation adoption. This significance, results from the intention that the adoption-decision was entitled by those individuals who were main part of the firm, and their personalities is affected the adoption decision. There are many studies conducted on the adoption of technology innovation that tried to focus on the attributes of the individuals who was the essential pivot of the adoption decision. Studies conducted by Rabie (2013) and Fillis (2000) proven that describing firms and their owner/managers could be beneficial for understanding their attributes and drives that have a direct influence on shaping the business. The extant literature indicates that various studies have focussed on managerial/individual's attributes as a possible significant determinants of technology innovation adoption.

Scholars provided extensive understandings of the significance of individuals' attributes particularly when the deployment decision is made by managers/owners who are considered as individuals that are members of a firm. Scholars have not tried to research individual characteristics in a systematic way, however in this research, the researcher attempted to compact this context to twelve sub-factors to confirm the significance of individual characteristic in the adoption of technology innovation. Nguyen and Waring (2013), and Marcati, Guido, and Peluso (2008) assert that the technology innovation adoption was not only reliant on the traditional external factors but also reliant on the internal factors associated to the psychological attributes of individuals. Thus, this section is focusing on the individual factors that are also internal and controllable factors. by reviewing the extant literature, twelve factors were identified as influencing factor from this context that might impact on the adoption of E-Marketing of distribution firms. Table 4.2 illustrates the factor related to individual context. The next section presents the factor related to individual characteristics.

**Table 4.2:** Summary of Individual/Managerial Factors Identified in the Reviewed Literature

| N  | Factors  | No. of Studies Used the Factor (s) | The Related Theory                   |
|----|--|------------------------------------|--------------------------------------|
| 1  | Decision Maker's Age                                     | 32 Studies                         | Diffusion of Innovation Theory (DOI) |
| 2  | Decision Maker's Education Level                         | 24 Studies                         | Diffusion of Innovation Theory (DOI) |
| 3  | Normative Social Influences                              | 27 Studies                         | Model of PC Utilisation              |
| 4  | Trust  | 23 Studies                         | TOE Framework                        |
| 5  | Owner/Manager Support (Involvement)                      | 72 Studies                         | TOE Framework                        |
| 6  | Perceived Ease of Use                                    | 46 Studies                         | Technology Acceptance Model (TAM)    |
| 7  | Gender   | 26 Studies                         | Diffusion of Innovation Theory (DOI) |
| 8  | CEO/Owner's Innovativeness                               | 12 Studies                         | TOE Framework                        |
| 9  | Intrinsic and Extrinsic Motivation                       | 44 Studies                         | Motivational Model                   |
| 10 | Job Fit with PC Use and Long-Term Consequences of PC Use | 18 Studies                         | Model of PC Utilisation              |

#### 4.2.2.1 Decision Maker's Age

The age is one of the key factors in the adoption of new technology, with older managers tending to show a greater level of fear that pauses or slows down the IT adoption process (Alsaif, 2013; Ifeonu, 2014; and Khater, 2016). Young managers challenge innovation, the unprecedented are risk taking (Carpenter *et al.*, 2004). The probable motives advanced by scholars for the traditional attitude of older managers/owners unlike the young managers/owners in regard of IT adoption and usage in firms include i) absence of physical and mental resilience of the elders or the disintegrating aptitude and capability to hold and captivate or learn new concepts. Therefore, age of managers is found to negatively impact the capability to make suitable decisions; ii) older managers have better psychological empathy and commitment to their firms' position quo; and iii) older managers might be at a point that job and financial safety are more vital, Hence, they prevent risky decisions (Carpenter *et al.*, 2004).

The CEO/managers or/and the decision makers' age is evidenced by various scholars as a significant factor affecting the adoption of technology innovations (Alsaif, 2013 ; Ifeonu,2014; Khater, 2016; Tauringana, 2019; Mandari and Chong, 2018; Alam, Wang and Waheed, 2019 ; Alavion, Allahyari, Al-Rimawi, and Surujlal, 2017; McCloskey and Lepper, 2010; Villarejo-Ramos *et al.*, 2014; Chuang *et al.*, 2009; Ohunmah,2015; and McCloskey and Lepper, 2010). For example, McCloskey and Lepper (2010) investigated how age impacts on the adoption decision of new technologies. They(ibid) found that older individuals were less likely to

contribute to Information Technology adoption process while the younger individuals have better ease for information access than the older. On the other hand, according to Gan *et al.* (2006), in their study found that that senior ages within the firm are being more risk averse, prefer to adopt and implement technology innovations in organisations during continued usage, older managers are pushed by attitude beliefs and behavioral control regarding deploying technology, while younger managers are only affected by attitude beliefs regarding technology adoption as well as they are more risk taking.

#### **4.2.2.2 Decision Maker's Education Level**

It is essential that the owner/manager and the key decision makers, achieve to an adequate level of education to be able to initiate E-Marketing activities. According to Chau and Tam (1997, P:202) "education is an indicator of individual's various cognitive orientations". Academics discuss that higher education holders have a greater rational capability, capacity for data processing, patience for vagueness and have openness to technology innovation (Rogers, 1995; Li *et al.*, 1999; Busselle *et al.*, 1999; and Stafford *et al.*, 2004). Managers with high level of education will find it simpler when it is about investment on IT (Bayo-Moriones and Lora-Lopez, 2007) as they are expected to be more creative based on their higher capability in identifying any associated benefits.

Research studies have found that one of the criteria for successful adoption amongst firms is the level of education (Thong, 1999; and Sarosa and Zowghi, 2003). Adopters are normally younger, educated, and have access to abundant resources (Rogers, 2003). According to Agarwal and Prasad (1999) lower educational level of decision makers are anticipated to be more profound to effort expectancy owned to technology. Moreover, higher educational levels lead to improved technology innovation adoption (Al-Ashban and Burry, 2001; and Gan *et al.*, 2005). Moreover, higher educational level allows individuals to reduce the impact of social influence on their behavior (Burton-Jones and Hubona, 2006).

There are many studies conducted on the impact of education level on the adoption decision. For instance, Mandari and Chong, (2018) stated that firms that are more innovative were those ran by managers with higher level of education. Similarly, Chibelishi *et al.* (2009) found the lower level of education as a reason for the lack of attention to adopt IT in West Midlands. Despite the positive impact of education level on adoption decision, there is yet no overall

conclusion concerning the role of education level in the degree of IT implementation. For instance, studies conducted by Sim *et al.* (2011), and Yang (2005) found that the level of education of owner/manager has no significant relationship and the degree of adoption and usage in Malaysia and Singapore respectively. Yet, there are studies that found the positive and significant impact of educational level on the adoption decision. For example, Kim and Lee (2008) and Bayo-Moriones and Lora-Lopez (2007) found a positive and significant relationship between owner/manager's educational level and the level of EDI adoption and compute usage respectively.

A fundamental level of education such as GCE is crucial as it leads to easy communication and obligation of business terms. Most firms' owner/managers, particularly in developing countries, are incapable of communicating in global languages that give admission to comprehensive markets. A general satisfactory level of education is a high school certification, while advanced business certificates are better. Prior research has recommended that older adopters with advanced levels of education are more likely to adopt (Burke, 2002; Lepper and McCloskey, 2011). For example, Lepper and McCloskey, (2011) found that decision makers with at least a college education, have increased level of comfort in adoption.

#### **4.2.2.3 Normative Social Influence**

According to Fishbein and Ajzen (1975) Subjective norms or Normative Social Influences refers to *"the person's perception that most people who are important to him think he should or should not perform the behavior in question"* (Fishbein and Ajzen 1975, P: 302). This variable is related to the user's intention since individuals frequently perform according to their insight of what "others" think they must do. This factor found to be more vital former to or in the initial phases of technology innovation execution when individuals have inadequate direct knowledge from which to improve attitudes (Hartwick and Barki 1994; and Taylor and Todd 1995). Social influence in this research is related to perceived pressures from other social networks to make/or not a certain decision. Here to note that adoption of certain information technology innovation in most cases makes doubt due to its consequences for possible adopters. Users are usually uncomfortable with improbability and will, so, tend to interrelate with their social network to discuss on their decisions by knowledgeable and normative social influences (Burkhardt and Brass, 1990). Furthermore, social influence is useful in forming a user's assessment of his/her confidence or capacity to deploy a system correctly.

This factor found by various scholars as important factor that affect the individual's decision and behavioural intention of adoption and usage of IT (Venkatesh *et al.*, 2003). Moreover, (Gatautis and Medziausiene, 2014; Kwahk and Ge, 2012; Shin, 2013; Xi *et al.*, 2016; Friedrich, 2016; and Martins, Hamari and Koivisto, 2015; Alsaif, 2013; Khater,2016; Shaharuddin, Rahman, Aziz, and Kassim, 2018; and Aljowaidi, 2015) found the normative social influence has significant and positive impact on the behavioral intention to utilise information technology innovations.

#### **4.2.2.4 Trust**

Trust is defined as an individual's readiness to rely on the positive features of technology innovation and refers to the capability to achieve its planned tasks (McKnight *et al.*, 2011). McCord and Ratnasingam (2004) examined technology trust to find its impact on the technology acceptance by individuals and explained it with a similar description as the individual personally believing that a particular IT infrastructure and its control methods can do tasks that satisfy the individual's prospects. This have increasingly been examined in the literature interchangeably. While some scholars simply name it as trust (Hanzaee and Alinejad, 2012; Ozkan, 2009; and Lim *et al.*, 2007), others combine it within perceived security (Harris *et al.*, 2011; Chung and Kwon, 2009; and Kim *et al.*, 2009).

Although the perceived trust can develop over period by frequent interactions with technology innovation, it can also be developed throughout the first encounter between customer and organisation. In this event, trust changes to an insight that is attached on customer's first impression from a company during the communication and interaction over the internet. Even if the individual first impression from the system were to be imperfect, the term trust can decrease all uncertainties and develop the confidence and assurance of the possible adopter that technology vendors will not exploit individual's personal information (Ozkan, 2009).

Empirical findings expose that trust has a high capacity on influencing the individuals to adopt and use online technologies. For instance, Ohunmah (2015) found trust as a fundamental variable that affected the successful adoption of online channel in Hong Kong. Similarly, Juan *et al.* (2009) found Perceived trust to be one of the most important variables that contributed to the successful utilisation technology innovation as well as one of the most significant constructs of behavioural intention for IT adoption in Germany. They (*ibid*) stated that managers can enhance their investment to shift to higher level of adoption and implementation

by improving their trust and beliefs in how online system can boost their performance and value. Furthermore, Ifeonu (2014) found a significant positive relationship between perceived trust on technology and firms perceived trust directing the online activities. El-Masry and Agag (2017) also found a significant and positive correlation between the technology innovation adoption and perceived trust of the adopters.

#### **4.2.2.5 Owner/Manager Support (Involvement)**

Management support and involvement is common prescription linked with successful adoption (Tidd *et al.*, 2009; and Tidd *et al.*, 2001). This involvement is related to the support that is given by manager/owner to new technology innovation adoption. This is not only associated to the providing IT related resources but also is associated to a motivational characteristic that is vital to inspire and encourage the whole company about the possible benefits that might bring by use of technology innovation. Regarding the IT related resources, a company to be able to use and implement IT innovation, needs some certain resources. Thus, enough financial support will increase the speed of adoption. On the other hand, in terms of motivational sides, throughout the manager/owner involvement, the firm feels prepared and inspired to adopt technology innovations such as E-Marketing.

Moreover, owner/manager support is an advantage for overcoming possible obstacles and resistance to change within the firm (Duan *et al.*, 2012). Thus, the owner/manager's support is considered as one of the determinant variables in adoption of E-Marketing by distribution firms. This is supported by some scholars (Lederer and Mendelow, 2012; Sila, 2013; Duan *et al.*, 2012; Li *et al.*, 2010; Abdullah, 2011; Al-Alawi and Al-Ali, 2015; and Malhotra and Temponi, 2010) that found the positive and significant impact of manager/owner support and involvement on IT adoption. Malhotra and Temponi (2010) state that manager/owner support as well as executive involvement in offering clear path, sufficient supervising, and respond to feedbacks are compulsory organisation metamorphoses for successful implementation of technology innovation.

Moreover, Empirical researches on IT/IS implementation confirmed that the successful adoption is influenced by manager/owner's support (e.g. Caldeira and Ward, 2003; Akkermans and van Helden, 2002; Wixom and Watson, 2001; Ghobakhloo *et al.*, 2012; Al-Alawi and Al-Ali, 2015; Al-Dmour and Al-Surkhi, 2012; Maryeni *et al.*, 2014; Kassim, 2014; and Rai and Patnayakuni, 1996). For example, Cho (2010) states that if owner/manager support new IS,

they should begin some reward schemes to inspire employees to deploy the new technology system, if this is applied, performance of the whole firm, would enhance as individual outcome develops. Furthermore, he determines that owner/manager advocacy is the most essential factor that affects the adoption of new technology. In conclusion, many scholars have found lack of commitment, particularly by managers/owner and top managers, as one of the main hindrances influencing Information Technology implementations. (Al-Dmour and Al-Surkhi; 2012; Maryeni *et al.*, 2014; Wang and Shi, 2009; and Awiagah, 2016).

#### **4.2.2.6 Perceived Ease of Use**

A significant motivational variable for individuals' technology adoption intention is PEOU (Revels *et al.*, 2010) which refers to individuals' perception of whether using a specific technical job would necessitate a mental struggle on his/her part (Ajzen and Fishbein, 1980 and Rouibah *et al.*, 2011). Davis (1989) described PEU to the level to which an individual believes that employing a specific technology system would be easy and is free from effort. Various researchers found that a technology system which is easy to learn and manages effortlessly satisfies the individuals and enhances the intention to use the system (Childers *et al.*, 2001; Szymanski and Hise, 2000). Moreover, some researchers have approved that PEU has a strong and significant impact on perceived usefulness (Davis, 1989; Gefen *et al.*, 2003; and Deveraj *et al.*, 2003). According to Du *et al.* (2012), Montazemi and Saremi (2013); and Martins *et al.* (2014) PEOU impact the individual's initial intention to deploy and is an important determinant of the individuals' attitude. Furthermore, individuals may adjust their behavior to the technology innovation if they identify it to be easy and effortless (Morosan, 2012). In this research PEOU refers to the general perception of individuals relating to the convenience of using E-Marketing and its related tools.

There are many studies investigated and tested the PEU and its impact on new technology adoption (Ashraf, Thongpapanl and Spyropoulou, 2016; Kanchanatane, Suwanno and Jarernvongrayab, 2014; Okazaki and Mendez, 2013; Abdullah *et al.*, 2016; Tauringana, 2019; Kumar and Shenbagaraman, 2017; Alalwan *et al.*, 2016; Abu-Shanab, 2017; Kanchanatane, Suwanno, and Jarernvongrayab, 2014; Iddris and Ibrahim, 2015; Kanchanatane, Suwanno, and Jarernvongrayab, 2014; Wamba, 2014; and Akbari and Pijani, 2013). For example, Okazaki and Mendez (2013) found PEU has both direct and indirect impact on intention to adopt E-Marketing. Firms constantly investigating on how to improve more advanced, user-friendly, and context-aware technologies which at the same time be less complicated and easier

to use and quicker to learn (Alahuhta *et al.*, 2005). Thus, PEOU is measured as one of the important variables for a successful adoption. In that sense, Revels *et al.* (2010) have found the PEOU as a positive predictor in the context of E-marketing. Similarly, Rezaei and Amin (2013) have discussed that there is a positive and significant relationship between PEOU and employee satisfaction in work environment.

#### **4.2.2.7 Gender**

Many previous studies on information technology, found the important role of gender on adoption of new technologies and highlighted that there is a difference between men and women when it comes for adoption of technology innovations (Venkatesh *et al.*, 2000; and Venkatesh and Morris, 2000). There is the common gender scheme theory which is highlighting that gender-oriented structures establish and lead individual insight (Venkatesh *et al.*, 2000). Following that, Jimmie and Mukhopadhyay (2010) conducted a study which found that men have the tendency to own and utilise PCs more than their women colleagues. Similarly, the degree of technology utilisation by women has been stated to be more affected by the PEU of the technology to men who are more pushed by the PU of technology (Chiemekwe and Ewwiekpaefe, 2011; and Venkatesh and Morris, 2000).

Prior findings found the influential role of gender in adoption of information technology and the majority found that men are more expected to employ the internet than women (Fallows, 2005; Wu, 2003; Villarejo-Ramos, Peral-Peral and Arenas-Gaitan, 2014; Karavidas *et al.*, 2005; Ifeonu, 2014; Khater, 2016; Tauringana, 2019; Mandari and Chong, 2018; Alam, Wang and Waheed, 2019; Alavion, Allahyari, Al-Rimawi, and Surujlal, 2017; Al Adwan, Aladwan, and Al-Adwan, 2019; Mandari and Chong, 2018; Khasawneh and Irshaidat, 2017; Waheed and Yang, 2017; and Werner, Carlson, and Jordan-Marsh, 2011).

These results were inconsistent with finding of several scholars were found both men and women behave the same when is the adoption of Information Technologies. For example, McCloskey and Lepper (2010) found both men and women to act similar in the level of technology innovation contribution. Moreover, Villarejo-Ramos *et al.*, (2014) and Perrin and Puggan (2015) found similar results that there is no difference between men and women with regards to internet use.

#### **4.2.2.8 CEO/Owner's Innovativeness**

The term “Innovativeness” refers to the level to which an individual deploys the innovation faster than other users within the similar social context (Marcati *et al.*, 2008). Thong and Yap (1995) state that a creative manager is the one who always solves the issues and problems through changing or modifying the structure. Basically, the inventive manager tends to look for solutions and ways that has never been tested or adopted before and thus is riskier. As acknowledged in the literature, despite of many advantages provides by adoption of technology innovation it also has some risks particularly in developing countries. Therefore, the more innovative the owner/manager, the more intention to adopt the technology innovation application (Ghobakhloo and Tang, 2013). Furthermore, the aspiration of manager/owner to become more inventive will enhance and boost the adoption of Information System (Ghobakhloo and Tang, 2013). Numerous researchers have found that the innovativeness of owner/manager is one of the determinant variables in technology innovation adoption concept. For instance, Thong and Yap (1995) found that the CEO's creativeness as determinant variable in IS adoption, Wymer and Regan (2005) found this element as a significant factor that affected firms in USA, Al-Qirim (2007) found that manager's innovativeness as the only factor that impacts the firm in in email marketing and website adoption, and finally, Ghobakhloo *et al.* (2011); and Grandón and Ramírez-Correa (2018) found CEO's innovativeness as a positive and significant factor in technology innovation adoption.

#### **4.2.2.9 Intrinsic and Extrinsic Motivation**

Motivational model as explained in chapter three has been developed to describe individuals' adoption of IT (Davis, Bagozzi, and Warshaw, 1992; Kim, Chan, and Gupta, 2007; Igbaria, Parasuraman, and Baroudi, 1996). In the other word, behavior itself (enjoyment, happiness, etc.) is intrinsically rewarding. Instead, the extrinsic motivation the individual is tempting in a behavior for getting external rewards. Chang and Chin (2012) described intrinsic motivation as the performance within the firm with no deceptive support other than the process of performing. While (Teo, Lim and Lai, 1999) describe extrinsic motivation as the performance within firm that is apparent to be instrumental in attaining valued results that are dissimilar from the action itself. According to the findings by Kim *et al.* (2007), Teo, Lim, and Lai (1999), and Van der Heijden (2004), individuals accept a technology innovation since they identify the probability of gaining convenience and satisfaction. Both types of motivations are the main elements for the success of any firm. If the firm does not have motivated employees to satisfy the tasks, they will not be capable of achieving the productivity in their job. In organisations,

the manager/owner have the key role of motivating the employees to work in common objectives (Abduljalil and Zainuddin, 2015).

With respect to the motivational model it seemed that empirical studies (Barkoukis, Lazuras, Tsorbatzoudis and Rodafinos, 2013; Feng, Fu, and Qin, 2016; Abduljalil and Zainuddin, 2015; Chan *et al.*, 2014; Shahzad *et al.*, 2020; Khan *et al.*, 2018; Friedrich-Baasner *et al.*, 2018; Al-Samarraie and Saeed, 2018; Shapiro *et al.*, 2017; Vasiljeva, Shaikhulina, and Kreslins, 2017; Dahnil *et al.*, 2014; Verdugo, 2019; Sohaib *et al.*, 2018; Hamid and Kuppusamy, 2017; Masoud and AbuTaqqa, 2017; Chandra and Kumar, 2018; and Wu and Chen, 2017) exposed that both motivations has significant impact on IT acceptance. Ryan and Deci (2000), Hsu and Lin (2008), and Kim *et al.* (2007) in their empirical studies on the impact of intrinsic motivation on individuals' intention to employ technology innovation, found the positive and significant impact of intrinsic motivation on the adoption of a new technology innovation. Thus, this study anticipates that an extrinsically and intrinsically motivated individual will have a positive attitude toward an adopted technology innovation.

#### **4.2.2.10 Job Fit with PC Use and Long-Term Consequences of PC Use**

The job fit and long-term consequences of PC use are two factors adopted from the Model of PC Utilization (MPCU) theory that fits the IT/IS adoption perspective and is useful for predicting individual's acceptance of personal computer use (Refer to chapter Three). As this model measures PC adoption (actual behavior), the behaviour intention factor has been excluded from the model (Taherdoost, 2018). There are few studies, examined the significance of job-fit and long-term consequences of PC use (Chau, 1996; Thompson, Higgins, and Howell, 1991; Gu *et al.*, 2009; Hanafizadeh *et al.*, 2014; Almahamid, 2010; Valencia, 2019; Cooper *et al.*, 1990; Mathieson, 1991; Igbaria, 1995; Al-Qeisi and Abdallah, 2013; and Hernandez and Grayson, 2012; and Marzuki, 2016).

Long-term consequences of PC use influences on the individual's job by knowing that, utilizing a technology innovation in the job has a long-term outcome on the career development of the individual. Thompson *et al.* (1991) *found the positive and significant relationship between the long-term consequences of PC use and the IT usage.* Similarly, Chau (1996) found long-term consequences of PC use to have a significant impact on computer and internet usage of individuals. On the other hand, job fir with PC use which refers to potentials of a PC in increasing the individuals' job performance and to the extent the individual's job is linked with

using the new technology applications (Thompson, Higgins, and Howell, 1991). There was no study measured the impact of job fit and PC utilization apart from Cooper and Zmud (1990) who found job-technology compatibility to be a main factor in describing the adoption behaviours. Thus, this study, due to the scarcity of studies examining these two factors will further investigate the significance and impact of these factors on the adoption process of IT application.

#### **4.2.3 Organisational Factors (Internal Related Factors)**

The third grouping of factors that influenced the technology innovation adoption is related to organisations attributes. The term "organisational characteristics" results from the consulting work developed by Nadler and Gerstein (1995) who investigated to find the appropriate structure for changing organisations. Organisational attributes refer to the firms' characteristics that are influential for the decision, to adopt or not adopt the technology innovation (Lippert and Govindarajulu, 2006). Hill (2012) defined organisational factors as the entirety of a firm 's organisation that includes: formal company structure, control systems and inducements, procedures, organisational culture, and employees that together determine how professionally and efficiently organisational resources are employed. Stank, Dittmann and Autry (2011), when reviewed the technology innovation adoption in context of distribution and supply chain, underlined that, there is a need for conducting more studies on the organisational attributes to focus on the role of manager/owner, appropriate information technologies for internal integration, skills administration, and external partnership and integration.

Several studies approved the importance of determining organisational factors that is one of the main contexts for having a successful adoption of technology innovation in the firm (Day, 2005; Freeman *et al.*, 2003; Simmons *et al.*, 2007; Olatokun and Kebonye, 2010; Maryeni *et al.*, 2014; Al-Somali, 2011; Rahayu, 2015; Shemi *et al.*, 2013). The findings from a variety of prior studies underlined many factors under category of organisational attributes that either have the positive or negative impact on the companies' adoption of technology innovation, whilst some studies indicated no significant relationship between the organisational attributes and the technology adoption of firms. Although, all conducted studies emphasised on the import role of organisational attributes on influencing the company's decision for technology adoption. However, majority of studies focused on one or two variables as a group and have not investigated the other potential organisational factors. For instance, Thong and Yap

(1995,1996) conducted two studies on the influencing factors of IT adoption by firms, in one study they measured the impact of the firm size and in another study, they have measured the firm size and employees' IT knowledge as the potential factors that influence the adoption of technology innovation.

On the other hand, there were also several studies that found multiple factors within the organisational context, as significant factors that affect the adoption and implementation of technology innovation. For example, Huy *et al.* (2012) found employees' IT knowledge, strategic orientation, organisational e-readiness, firm size; Ramdani *et al.* (2009) found top management support, organisation e-readiness, experience, and firm size as potential factors that influence the technology innovation adoption. There were several studies used organisational factors under TOE framework. For example, Ifinedo (2011) deployed TOE for electronic commerce adoption found management support and organisational IT competence; or Hung *et al.* (2011) found the degree of decentralisation, formalisation, percept of organisational scale industry.

Being concerned with the distribution industry, the necessity to technology innovation for distribution firms has become critical, ranging from advanced changes in business models, employees' ideology, information technology enabled applications, and new concepts and perceptions are some of the key innovations in distribution industry and both local and global market to be able to track the growth and gain new opportunities. Shortly said, technology innovation is the life blood of firms in many industries (Shankar and Yadav, 2011). This study tried to group the organisational factors, in a systemic way, to examine every possible organisational variable (as an internal and partially controlled variables) that might influence the distribution firms' adoption of E-Marketing by. The following Table 4.3 shows a summary of organisational factors identified in the review of extant literature. The next section presents the potential organisational related factors that might impact on the adoption of E-Marketing of distribution firms.

**Table 4.3:** Summary of Organisational Factors Identified in the Reviewed Literature

| <b>N</b> | <b>Factors</b>  | <b>No. of Studies Used the Factor (s)</b> | <b>The Related Theory</b>          |
|----------|---|---|------------------------------------|
| 1        | Lack of Privacy and Security  | 28 Studies                                | TOE Framework                      |
| 2        | Size of The Company   | 38 Studies                                | TOE Framework                      |
| 3        | Organisation's Culture  | 32 Studies                                | TOE Framework                      |
| 4        | Organisation's E-Readiness (Firm's Financial Resources, Firm's IT Infrastructure, Human Infrastructure) | 35 Studies                                | Perceived E-Readiness Model (PERM) |
| 5        | Organisational Learning Orientation   | 10 Studies                                | TOE Framework                      |
| 6        | Receptivity (Attitude) Toward Change  | 24 Studies                                | TOE Framework                      |
| 7        | Marketing Capabilities of The Organisation  | 28 Studies                                | Resource-Based View (RBV)          |
| 8        | Strategic Orientation   | 26 Studies                                | TOE Framework                      |
| 9        | The Level of Decentralisation   | 15 Studies                                | TOE Framework                      |
| 10       | Degree of Formalisation   | 13 Studies                                | TOE Framework                      |
| 11       | Managers and Employees' IT Knowledge (Level of New Technology Knowledge)                                | 61 Studies                                | TOE Framework                      |

#### 4.2.3.1 Lack of Privacy and Security

Lack of privacy and security in in online environment is another factor that impacts the E-Marketing adoption of firms (Al-Somali, 2011; Limthongchai and Speece (2003); Hao et al., 2010; Tan et al., 2008; Limthongchai and Speece, 2003; Alrousan,2014; Azad and Hasan, 2011; Lawrence and Tar, 2010; MacGreogor and Vrazalic, 2005; Mirchandani and Motwani, 2001; Halaweh, 2011; Aleke et al., 2011; Olatokun and Kebonye, 2010; and Voges and Pulakanam, 2011). Lack of security is a worldwide concern that all must consider for at the same time as engaged in conducting online activities trading (Clear, 2017). In fact, security concerns are developing as an exclusive item technology innovation adoption. As stated by Clear (2017), there is a lack of study that offers an overall and deep argument on security concern and what they might be in the context of E-Marketing adoption.

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application of E-Marketing where only e-mails are accepted online deprived of any online payments (Karanasios and Burgess, 2008; Mukti, 2000). In many emerging countries, the Internet technology and the networking are being considered as compound phenomena by many firms who may assume them to be predators for their information (Tan *et al.*, 2007). Some scholars have approached to the issue of security, throughout the term 'trust', and stated that these two elements are dependent to one another and if one gained the other term will be acquired (Beatty *et al.*, 2011; Kim and Benbasat, 2009; Tang, Hu and Smith, 2008).

There are some researchers conducted to measure the relationship of the adoption with the lack of security and privacy and how it affects the adoption. (Bella, Giustolisi and Riccobene, 2011; Li, 2011; Dlodlo and Dhurup, 2010; Sharma and Lijuan, 2014; Abu-Shanab, 2017; Alwan and Al-Zubi, 2016; Al-Madi, Al-Zawahreh, and Al-Qawasmi, 2013; and Abdallah and Jaleel, 2015) conducted studies on technology innovation adoption in various sectors, found lack of privacy and security as an influencing and hindering factor with a significant impact on the adoption decision by customers and individuals. Moreover, Harris *et al.* (2011) and Kim *et al.* (2010) found that the greater the related security of the future use, the better the degree of usage of new technology. Note that the lack of technology regulation is a drawback for firms especially in developing countries. Most developing countries are yet to legislate laws for online marketing and any intervals on this aspect means that new technology initiatives are shortened. Lawson *et al.*, (2003) stated that most firms in developing countries have no financial capability to protect their systems after viral attacks.

#### **4.2.3.2 Size of The Company**

Another important factor that might impact on the technology adoption process and diffusion by business is firm size (Morteza *et al.*, 2011; Chong, 2008; Tan *et al.*, 2007; and Premkumar and Roberts, 1999). This is since the firm size is linked with the capability of firms to offer certain possessions, both financial and human resources. The larger are the firms mean the better is its capability to provide certain supplies, and more probable to adopt new technology application. Moreover, being associated to resources accessibility, Zhu *et al.* (2002) added that the firm size is also allied with the ability for bearing the risk regarding IT investment, an aptitude to drive business partners to adopt system externalities, and a capacity to attain economies of scale. Besides, Johnson (2010) disclosed that small firms typically have an inadequate budget, and thus they are less expected to invest a great amount for IT. In that sense, Ohunmah (2015) and Shemi (2012) found that larger firms have greater propensity to adopt

information communication technology and more complex IT systems compared to the smaller firms.

There are other studies that resulted with the same outcomes such as Freeman, *et al.* (2003); Fillis and Wanger (2005); Iyer *et al.* (2009); Olatokun and Kebonye (2010); Shemi (2012); Rahay (2015); Mazzarol (2015); and Sheikh, Shahzad, and ku Ishak (2017). Smaller companies will find it very stimulating to obtain such IT system due to the setting up costs. Moreover, Bharati and Chaudhury (2006) who conduct research on the degree of IT adoption in SMEs in the US, found the significant impact of firm size on decision of which technologies to be employed. However, Karakaya and Shea (2008) found that the size of firms to have an insignificant impact on technology adoption, possibly since the playing field has been demolished with improved and simpler logistics to implement IT systems.

#### **4.2.3.3 Organisation's Culture**

Organisational culture has been recognised as an important variable in the success or failure of IT adoption in firms. Over the past 25 years, Hofstede's cultural theory (1991) has gained significant attention among scholars. One of the most key features of this theory is its successful linking of culture to management practice. Organisational culture has been described as a set of shared values, opinions, and norms that is imitated in organizational objective and actions that support its members' understanding of organisational performance (Liu *et al.*, 2010). Moreover, Schein (1992) described organisational culture as an outline of essential assumptions the members learned as it explained its issues of exterior adaptation and internal assimilation. Scholars (Schein, 1990 and Hussain, 1995) have proven the impact of organisational culture on the way a firm behaves, its standards and fundamental belief to technology innovation diffusion.

In the extant literature, academics have projected numerous ways to classify organisational culture including relation-transaction-oriented culture (McAfee, Glassman, and Honeycutt, 2002) and flexibility-control orientation (Khazanichi, Lewis, and Boyer, 2007). Other researchers have used culture characters, aspects, or dimensions to take the outline of values, principles, or norms that expose an organisation's culture (Gordon and DiTomaso, 1992; O'Reilly, Chatman, and Caldwell, 1991). By relying to this description, Tsui, *et al.*, (2006) theorised the framework in finding organisational culture in different organisation in China. Their developed framework consists of five dimensions namely: employee and customer

orientation, organised organisation control, creativeness, and group accountability. By means of these scopes, Liu *et al.* (2010) describe businesses that showed an excessive emphasis on these values as “strong culture”; and those with low level as a “weak culture” (Baird *et al.*, 2011).

Researchers increasingly have recognised the important role of organisational culture on managers’ decisions in implementation of advanced technology (Khazanchi *et al.*, 2007; and Liu *et al.*, 2010). Particularly, it has been recommended that this factor can affect a firm’s capability to develop data, justify, and use options in its decision-making processes in new technology adoption (Senarathna, 2014; Dubey *et al.*, 2017; Shemi, 2012; and Mohtaramzadeh, 2018). Ruppel and Harrington (2001) found the influencing impact of organizational culture (emphasizing on trust, flexibility, and rules and regulations) on facilitation the intranet marketing adoption. Moreover, Zhu and Thatcher (2010) found that cultural infrastructure were influential variables that impact the decision to adopt new technologies amongst companies. On the other hand, Rahman, Kamarulzaman, and Sambasivan (2013) found the opposite results where managers/CEO influenced staffs to deploy the technology systems. Organisational culture could be both facilitator and inhibitor for the adoption of IT asserted by Valencia *et al.* (2010). They (*ibid*) found that, whereas adhocratic cultures could increase the technology innovation adoption, hierarchical cultures, could hinder it.

In conclusion, the literature shows that cultural differentiations have diverse consequences on the level of technology adoption in organisations. It has been discussed those different organisational cultures frequently own different fundamental values, norms, and belief that both directly and indirectly impact the new technology adoption in companies. In this sense, it can be concluded that this factor may either weaken or strengthen the impact of antecedent factors on technology adoption. Also, by reviewing the extant literature it has been found that numerous have measured organisational culture according to the country’s disciplines and backgrounds and all found the significant impact of this variable on the adoption decision of organisations (Alrousan, 2014; Azam, 2014; Iddris and Ibrahim, 2015; Adede, 2017; Zerihun and Shekhar, 2011; Raoofi, 2012; Qashou and Saleh, 2018; and Jun-Hwa, 2018).

#### **4.2.3.4 Organisation’s E-Readiness**

Organisation’s e-readiness is described as the level in which the information technology infrastructure, relevant structure and IT skills within business can support innovation

technology adoption (Zhu *et al.*, 2006). The significant role of organisation e-readiness is its inclusive potential, in offering a competitive advantage to company and distinguishing the company from others in terms of performance (Kathuria *et al.*, 1999; Ives and Jarvenpaa, 1991). Organisations with complex IT abilities undeniably focus on particular set of competitive implications that are vary from the focus of less technically complex companies (Sanders and Premus, 2002). The literature recommends that e-readiness functions are on two essential mechanisms: technical readiness (Information Technology infrastructures such as: hardware, software, network, communication abilities for allowing online-related business, and databases) and IT human resources (IT related skills of for implementation of the application) (Wang and Tsai, 2002; Patrakosol and Lee 2009; Bharadwaj, 2000; Mata *et al.*, 1995, Zhu and Kraemer, 2005; Swatman and Swatman, 1991) and both elements are essential if the firm needs to develop technology innovation system as an integral part of the value chain (Tiago and Maria, 2010).

Moreover, it is believed that, due to the lack of IT skills and the technical information needed in the growth process, many firms postpone the technology innovation adoption process, and prefer to delay it until they have adequate IT expertise (Hung *et al.*, 2010). Firms with weak technology infrastructure, and insufficient employees with IT skills may not be prepared to take the risk of technology adoption and conversely firms with both mechanisms would have a great position to adopt new technology (Tiago and Maria,2010). Moreover, firms that are excel in technology innovation are more possible to adopt innovation technologies in higher level compared with those without (Teo and Ranganathan, 2004). Many researchers have found that organisation's e-readiness positively and significantly impacts companies' adoption of different types of technological innovations such as EDI (Iacovou *et al.*, 1995), E-Marketing (Chang and Chen, 2005) and B2B e-marketplaces (Stockdale and Standing, 2004). Molla and Licker (2005) found both IT infrastructure and IT human resources as determinant variables in the initial stage of electronic commerce adoption by firms in South Africa. Similar outcomes were also found by Rabie (2013); Shemi (2012); Al-Somali (2011); Shah Alam *et al.* (2011); Le *et al.* (2012); Thi and Lim (2011); Aghaunor and Fotoh (2006); Abou-Shouk *et al.* (2012); Rahayu (2015); Aljowaidi (2015); Qashou and Saleh (2018); Alavion *et al.* (2017); Khaskheli and Jun (2016); and Gyamfi (2016).

#### **4.2.3.5 Organisational Learning Orientation**

It is necessary for organisations to develop their learning process to be able to survive, grow and adjust to the competitive environment (Joe *et al.*, 2009; Bapuji and Crossan, 2004; and Vince, 2000). According to Bedeian (1986) with the continuous change of the environment, a high capability for learning is a vital prerequisite for the effective performance of a firm. Organisational learning orientation is a multi-level progression that initiates with individual learning, that leads to group learning and thus to constant conversion of the firm in a way that is progressively satisfying to its shareholders (Dixon, 1999). Individual's opinions are shared to other individuals, common sense established, interactions become structured, and then some of the individual combined considerations that became advanced by groups convert to institutionalised as firm products. Organisation learning orientation has been studied from a range of disciplinary viewpoints (Tsang, 1997).

An extensively acknowledged description of organisational learning orientation has been developed by some scholars (Dibella *et al.* Shaltoni *et al.*, 2018; Huang and Chen, 2018; Nwokah and Irimagha, 2017; Omidvar, Ghouchani, and Sadeghi, 2017). Salavou (2005) stated that learning orientation is an important organisational competency in developing latest and more exclusive products/services for the market. There are some studies that found the significant impact of learning orientation on adoption process of technology innovation. Nwokah and Irimagha (2017) used organisational learning orientation element at the center of his theoretical framework, discussed that many firms withdraw the adoption process due to the lowered and insufficient knowledge. Furthermore, Cegarra-Navarroa *et al.* (2015) documented the successful process of electronic business adoption resulted from the firm's capability of developing an essence of learning and sharing that support the employees and customers with adding knowledge, finding solutions, and offering new services. Other scholars such as Huang and Chen (2018); Omidvar, Ghouchani, and Sadeghi (2017); Al-Somali (2011), Cegarra-Navarroa *et al.* (2015), and Lin (2014) found the significant impact of organisation learning orientation on the adoption and diffusion of various technology innovations, the greater the degree of technology knowledge and training activities, the higher the level of adoption.

#### **4.2.3.6 Receptivity (Attitude) Toward Change**

The resistance of firms to shift from traditional techniques of marketing and business towards computerised approaches is another influencing factor of technology adoption (Thulani *et al.*, 2010; and AlGhamdi *et al.*, 2011). The openness of organisation toward new technology

innovations leads the firm not only to the positive attitudes of employees towards adoption, but also to the positive attitude of the businesses toward the technology in general (Alrousan,2014; Alrousan and Jones, 2016; Sultan, Asif, and Asim, 2019; Alavion *et al.*, 2017; Galati *et al.*, 2016; and Dalvi-Esfahani *et al.*, 2018). Moreover, some labor-market institutes have state that the adoption of technology innovation by organisations is an attempt to save on costs (Crespo-Cuaresma *et al.*, 2008). Furthermore, the willingness of firms to take risks reduced their disbelief about the benefits that technology innovation system could bring to their business (Azad and Hasan, 2011).

Empirical researchers have found that openness toward change is a strong predictor of internet adoption and diffusion (Rymound, 2014). The receptivity toward change refers to the degree to which organisation, is open toward change (Damanpour, 2009). Transformation is not a simple change that can be achieved quickly. The technology insertion take resistance from those clinging to traditional methods, and it must be civilised within a company rather than just transfer (Menguc and Auh, 2006). Furthermore, after significant investment on time, assets and resources, technology innovations are often obstructed and misused by firm members (Keen,2010). Thus, the receptivity toward change has been found to be significant determinant leading the firm toward success adoption (Petroni and Rizzi, 2011). They (*ibid*) discuss that, overcoming the resistance of employees to implement IT innovation is another step need to be considered in the initial process of organisational change. Undeniably, positive attitude towards change is important in developing the firms' ability to transform (Francalanci and Morabito, 2008) and is also impact the outcome of investment decisions (Damanpour, 2010).

#### **4.2.3.7 Marketing Capabilities of Organisation**

Marketing capabilities as described in chapter three, is one of the elements of RBV theory and refers to the bundle of information, skills, and resources of the organisation, enabling the company to improve the value of its services/goods and by differentiating itself from competitors, be able to meet competitive demands (Day, 1994). Song *et al.* (2008) defined marketing capabilities as the available knowledge for the competition, customers as well as the ability to segment and target the right market, promotion, pricing and combining marketing activity. Marketing capabilities, increase the formation of greater customer value, resist replications, are vigorous and can be employed in many ways to speed up the firm's adjustment to technological and environmental change (Day, 1994). Although studies investigating the impact of marketing capability on technology innovation are limited (Benedetto *et al.*, 2008),

various studies found the positive and significant impact of firm's marketing capabilities on increasing the level of adoption and implementation of IT system (Abou-Shouk *et al.*, 2012; Alrousan, 2014; Chong, Bian, and Zhang, 2016; Sheikh, Shahzad, Ishak, 2017; Adede *et al.*, 2017; Liu *et al.*, 2020; Tarighi *et al.*, 2017; Setiowati, Daryanto, and Arifin, 2015; and Cacciolatti and Lee, 2016).

Poon and MacPherson (2005) stated that, innovative organisations need to develop substantial marketing capability and therefore innovation include not only to technological but also non-technological activities. They (*ibid*) found a significant and positive relationship between marketing capability and information technology innovation. Simmons *et al.* (2007) in their study of E-Marketing adoption of SMEs in agriculture industry in UK, found that the lack of marketing capability has a negative impact on the process of adoption. Furthermore, Souder and Janssen (1999) stated that the more effectual capability of the organisation's marketing communication, the faster the technology innovation actions and procurement result to successful outputs.

#### **4.2.3.8 Strategic Orientation**

With the development of IT adoption, firms are attempting to be more innovative and unique to achieve to an enhanced strategic position within the market (Koo *et al.*, 2007). Successful use of IT needs having a well-developed strategy that links between the firm's strategy and the technology innovation that supports it as well as handling extensive IT applications that enable adaptable behaviour between the firm and its employees.

Scholars describe the strategic orientation from two perspectives (Homburg and Pflesser, 2000; and Narver and Slater, 1990): i) Behavioural perspective that focuses on the activities that are related with the initiation and distribution of the receptiveness to market information; and ii) cultural that focuses on firms' values and beliefs that stimulate behaviours. The strategic orientation has been studied by many scholars in marketing and management literature (Zhou and Li, 2010; Swilley *et al.*, 2012; Kotlar *et al.* 2013; Llach and Nordqvist, 2010; Zellweger *et al.* 2012; Alotaibi, 2013; Al-Shoura, 2014; Ahmad and Shawli, 2014; Al-Somali *et al.*, 2011; Abou-Shouk *et al.*, 2012; Alrousan, 2014; and Aljowaidi, 2015). Laforet (2009) discusses that, the degree to which businesses transform successfully would rely on the firm's capability to plan forward, to have a strong strategy and to direct strategically. Firms with strategic orientation are able to incessantly monitor the customers, competitors, and external

environment to decrease the risks (Morgan and Strong, 1998). The issue that influences the traditional business frameworks is related to undesirability, in-house networking of tasks, and rising customers/ employees understanding, that in fact all leading the firm in need of developing a strategic model to increase the performance. Moreover, companies need to be careful in developing business model, as the models differ depending on the nature of the industry and the country in which the business model is developed (Bharadwaj *et al.* 2013).

#### **4.2.3.9 The Level of Decentralisation**

The term decentralisation refers to the level to which the authority and level of decision making is distributed from the high to the lower level of managers and employees. In the other word, the decentralisation is the extent to which the power is allocated to all members of the organisation to facilitate the communication route (Robbins, 1998). This factor found to have an influence in prediction of the degree of the technology adoption, makes a feeling of trust, and induces a sense of accountability in organisation to convert that power into constant development creativities and innovative results (Mohamed, 2002). There are two elements, measured in this variable which are: i) the pyramid of authority that measures the level of dependency of the juniors on their seniors in decision-making process; and ii) the level of centralised decision-making which reflects the degree of personnel' participation and contribution in decisions related to the resource division and rules and regulation development (Johaim *et al.*, 2011; and Rabie, 2013). The decentralised construction increases the communication (Zheng *et al.*, 2010). Here, the role of the information technology is supporting the organisation to decentralise and split the pyramids in a way that allows the employees on top of the pyramid to communication with the bottom of the pyramid without the need of the mediators or line managers (Bayo-Moriones and Lera-Lo' pez, 2007) which in fact, increase the commitment, confidence, participation, motivation, and positively impact the technology innovation implementation (Saran *et al.*, 2009).

Saran *et al.*, (2009) found that decentralisation positively impact the adoption process and extend the outlooks and creativities of lower level of personnel (Saran *et al.*, 2009). Kim and Lee (2008) conducted a research on Korean firms for EDI adoption and found that firms that adopted the technology in high level are having a decentralised structure. Similarly, Alrousan (2014); Salome and Ofunre (2019); Qashou (2017); Ndekwa and Katunzi (2016); Lim, Baharudin, and Low (2016); Harif (2017); Chen (2011); and Giotopoulos (2017) found the

positive and significant influence of the decentralised firm on the adoption and implementation of ICT technology. Iyer *et al.* (2004) found that the degree of decentralisation has significant impact on the electronic commerce adoption and explained that in the decentralized firm, the information is too speared among the employers and functional units, while in the centralised firm, the information overloads load to top managers. Thus, they explained that the decentralized companies have more flexible structure and implement the technology innovation easier, the higher the level of decentralisation, the easier the implementation stage (Hung *et al.*, 2011).

#### **4.2.3.10 Degree of Formalisation**

The level of formalisation in the firm, refers to the level to which a firm employs inscribed regulations and policies for organisational activities and is measured by regulation guides and job descriptions (Saran *et al.*, 2009; Kim, 2005, and Rabie, 2013). Some studies found the high level of formalisation to have negative impact on technology adoption. For example, Vatanasakdakul, Tibben, and Cooper (2004) state that, an organisation's technological change might be more stimulating in a very bureaucratic and strict construction than a similar change in a firm with less bureaucratic and flexible structure. Gold, Malhotra, and Segars (2001) found that, strictly formalised rules, regulations, and structure interaction among companies' members, reduce the opportunities for progression and development of individuals and prevents innovative solutions to issues. Grover (1990) suggested that degree of formalisation negatively is related to the type of innovation. For example, the more formalised the procedures are, the more there is a propensity for certification of the regulations, and the more complex the technology implementation in firms (Kim and Lee, 2008). On the other hand, the degree of formalisation is positively related to the adoption (Katunzi, 2016) and implementation (Bonetti, Petrillo; and Qashou, 2017) of technology innovation.

Kim and Lee (2008) highlighted that in firms, once the technology innovation has passed the adoption stage, formalisation element would be an advantage for the implementation, as it supports in description of authority and accountability, decreasing the conflict of thoughts. This study focuses on the structured rules and policies in regard of technology innovation usage within firms as well as performance control. This factor found to have a significant and positive impact on the adoption and implementation process by some studies (Harif, 2017; Rogers, 2003; Alrousan, 2014; Claycomb, Iyer, Salome and Ofunre, 2019; Bonetti, Petrillo, and Simoni, 2006; Qashou, 2017; Ndekwa and Katunzi, 2016; and Lim, Baharudin, and Low,

2016). Moreover, studies by Iyer *et al.* (2004), and Yang *et al.* (2005) found no significant relationship between the level of formalisation and the technology innovation adoption and implementation.

#### **4.2.3.11 Employees and Management IT Knowledge**

The owner/manager's and the employees' IT knowledge are both considered as influencing factors that impact the process of technology adoption and implementation. It cannot be denied that inadequate IT knowledge is one of the issues that decelerating the adoption process (Morteza *et al.*, 2011). The employees' IT knowledge is related to the availability of the technology-qualified employees (Apulu and Ige, 2011, Olatokun and Kebonye, 2010, and Thulani *et al.*, 2010). In fact, firms with employees that have high knowledge of technological innovation, are more expected to implement and use information technology innovation (Mehrtens *et al.*, 2001).

On the other hand, studies show that firms with managers/owner with high IT knowledge are more expected to implement IT innovation than those with less IT knowledge (Chen and Small, 1994). The owner/managers with higher IT/IS knowledge, have more confident in technology adoption and this will decrease the improbability and insecurity feeling for the adoption. An adequate level of IS/IT knowledge of owner/managers and employees can contribute the firms to adopt applicable technology innovation and activities in the business leading to a successful adoption and implementation with the cooperation of employees with high IT knowledge (Teo and Ranganathan, 2004; Meso, Musa and Mbarika, 2005; and Looi, 2005).

The problem that majority of firms face in the adoption process, is the employees with lack of IT skills, poor technical aptitude (Dutta and Coury, 2003, Scupola, 2010), and inadequate marketing abilities (Stansfield and Grant, 2003). This is since the fast development of information technology continually makes firms, in need of new services for the competitive advantage (Gangwar *et al.*, 2015). In most circumstances, particularly in emerging countries, owner/managers would perform just the simplest and the minimum to make themselves up to date with technology changes. Moreover, many managers/owners who have criticised about the high cost of technology set-up have not investigated other economical ways of retrieving to competitive markets, such as Mobile Marketing, Social Media platforms, Search Engine Marketing Techniques, and other new generations of Information Technology (Scupola, 2010; and Gangwar *et al.*, 2015).

There are studies that found the significant impact of owner/managers' IT knowledge in adoption of technology innovations. Montazemi (2006), in his comparative research found that firms in US make better deployment of IS and are more successful in managerial decision-making. Moreover, Karakaya and Shea (2008) showed a great satisfaction of electronic commerce creativities in US firms that has resulted in expected levels of adoption. In most of firms in emerging countries, a low knowledge level amongst employees is dominant (Mollar and Licker, 2005; Ghobakhloo, 2012; and Chiu *et al.*, 2017). This makes it challenging especially for owner/managers to appreciate and understand IT opportunities on the competitive market. The incapability and lack of knowledge related to IT and general organisational abilities was cited as one of the variables influencing firms in the appreciation of new technologies (Ghobakhloo, 2012; and Chiu *et al.*, 2017).

Prior studies (Waheib, 2016; Rabie, 2013; Sheikh *et al.*, 2018; Erum, Rafique, and Ali, 2017; San-Martín, Jiménez, and López-Catalán, 2016; Ocloo *et al.*, 2018; Kumar *et al.*, 2019; Chong, Man, and Kim, 2018; Chandra and Kumar, 2018; Morteza *et al.*, 2011; Ifinedo, 2011; Al-Somali, 2011;; Hao *et al.*, 2010; Ramdani and Kawalek, 2009; Rahayu, 2015; Morteza *et al.*, 2011; Gangwar *et al.*, 2015; and Wang and Hou, 2012) highlighted the importance of experienced and knowledgeable IT employees within the firm or from subcontracting organisations to support in implementing and adopting technology innovation tools and have positive influence on the adoption process. According to Mavondo and Farrell (2003) E-Marketing is a compound technological innovation and for a successful adoption and implementation the technical know-how is compulsory, even if the owner/managers are highly skilled in IT, still with the low IT-skilled personnel would decelerating the process, since they need to be trained, and this waste time and increase costs (Ifinedo, 2014; and Rahayu, 2015). In fact, high-skilled employees can make the adoption easier and faster, since their higher educational level increases the IT usage and its impact on the performance as well as transforming to higher level of adoption in shorter time (Bayo-Moriones and Lera-López, 2007).

#### **4.2.4 Technological Factors (External Related Factors)**

Technological characteristics are extensively examined by scholars using Rogers' (1995, 2003) diffusion theory who indicates that technology innovation disseminates faster because of the perceived embedded characteristics of the technology adopted by the possible adopters. According to Tornatzky *et al.* (1990) the technological attributes explain not only the current

technology available within the firm, but also new technology exists within the market that determines the capability of firm to shift to new technology innovation or other technologies plans. The term, technological attributes are the factors that are gained from the nature and context of the ICT that the firms use or propose to adopt for E-Marketing adoption (Scupola, 2009). These factors are described and examined by various studies over years, such as: Al-Somali (2011), Rabie (2013), Ohunmah (2015), Shemi *et al.* (2013), Alrousan (2014), Rahayu (2015), Duan *et al.* (2012), Morteza *et al.* (2011), Shah Alam, Ali, and Mohd. Jani (2011), Tan *et al.* (2009), Al-Qirim (2008), Saffu *et al.*, (2008), Iacovou *et al.*, (1995), Dalvand *et al.*, (2014), He *et al.*, 2006 ; Elbeltagi (2013), Zhu *et al.*, 2003 ; Davis, *et al.* (1989), Oliveira *et al.* (2011), and Basias *et al.*, (2012).

Several factors within this context have been examined repeatedly by various scholars and found to be determinant factor of technology adoption by organisations. Majority of these factors adopted from the DOI theory that explains the attributes of innovation. The review of extant literature indicates inconsistent outcomes for the same factor amongst various studies. For example, Al-Qirim (2006) found two factors of perceived complexity and compatibility, as influencing factor for adoption of online psychiatric video-conferencing; Matopoulos, Vlachopoulou and Manthou (2009) found operational compatibility and collaboration in production systems; Chong *et al.* (2009) found relative advantage, perceived compatibility and complexity have no significant impact on adoption of e-commerce in china; while Assimakopoulos and Wu (2010) found reliability, compatibility, and PEU as influencing factors for adoption of VOIP in china. This study tries to group the technological factors, in a systemic way, to examine every possible variable (as an external and uncontrolled variables) that might influence the Iranian distribution firms' adoption of E-Marketing. The following Table 4.4 shows a summary of technological factors identified in the review of extant literature. The next section presents the potential technological related factors that might impact on the adoption of E-Marketing of distribution firms.

**Table 4.4:** Summary of Technological Factors Identified in the Reviewed Literature

| N  | Factors   | No. of Studies Used the Factor (s) | The Related Theory            |
|----|---|------------------------------------|-------------------------------|
| 1  | Physical Infrastructures and Sufficient Accessibility to Internet Resources | 33 Studies                         | TOE Framework                 |
| 2  | Complexity of Technology  | 20 Studies                         | Diffusion of Innovation (DOI) |
| 3  | Cost Effects  | 31 Studies                         | TOE Framework                 |
| 4  | Perceived Benefits  | 40 Studies                         | TOE Framework                 |
| 5  | Lack of Payment Facilities  | 3 Studies                          | TOE Framework                 |
| 6  | Lack of Reliable Power Supply   | 12 Studies                         | TOE Framework                 |
| 7  | Language Barrier  | 13 Studies                         | TOE Framework                 |
| 8  | Lack of Internet Address Space  | 4 Studies                          | TOE Framework                 |
| 9  | Compatibility   | 66 Studies                         | Diffusion of Innovation (DOI) |
| 10 | Relative Advantage  | 38 Studies                         | Diffusion of Innovation (DOI) |

#### 4.2.4.1 Physical Infrastructures and Sufficient Accessibility to Internet Resources

The performance and implementation of IT technologies rely on the available infrastructure of the country, given cables and neighbouring conditions' capabilities. It is assumed that if the technology innovation adopted by a firm in emerging countries, then constant infrastructure improvement is vital. The physical infrastructure in emerging countries is not as good enough as in comparison with developed countries. The physical Infrastructure according to literature could be the accessibility to internet (Ayeh, 2006, Chen and McQueen, 2008, Samoilenko and Osei-Bryson, 2008), internet service characteristic (Wahid, 2007, Mohanna *et al.*, 2011), lack of systems among organisations in the same context (Bourgouin, 2002), and poor internet interconnectivity between countries within the same region.

In many developing countries, the limited and insufficient access internet resources, considered as a significant factor that influence the adoption and implementation process of organisations and contributed to the great delay for firms (Uzoka *et al.*, 2007; Molla and Licker, 2005; Magembe and Shemi, 2002; and Shemi, 2012). There is a great need for accessing to sufficient IT Infrastructure, delivery infrastructure and other infrastructures in countries to support the adoption process. An organisation with the infrastructure in a poor condition, would have low chance to progress or have great performance. This is sometime due to the control of system by dominations or leading organisations particularly in many developing countries context (Usman and Oyefolahan, 2014; Shemi, 2012). The literature shows that a company's extent of technology innovation adoption is significant on its intention to transform (Xu *et al.* 2004).

Studies by various scholars (Waheib, 2016; Aljowaidi, 2015; Aleid, 2011; Kaur, 2017; and Usman and Oyefolahan, 2014) proposed that organisations with combined business models require to continue to devote their budget on upgrading and updating their systems to be able to meet the requirements of their customers, suppliers, business partners, and industry as well as maintain their competitive advantage. These organisations are those that are more advanced with the adoption of technology systems, such as electronic commerce or electronic business.

However, in some developing countries especially Middle Eastern countries, despite of the availability of strong infrastructure, the cost of establishment and maintaining is high and need a detailed planning, financial resources, and management that drive companies to seek for Foreign Direct Investment (FDI) and get support from other wealthy countries (Al-Somali, 2011). However, wealthier emerging countries, in most cases have a strategic business models that free them of being dependent to other nations (Usman and Oyefolahan, 2014). There are many studies found the significant and positive impact of sufficient accessibility to infrastructures on the adoption and implementation of IT technology innovations (Usman and Oyefolahan, 2014; Ryberg, 2008; Van der Veen, 2004; Harindranath, Dyerson, and Barnes, 2008; M'kwiriga and Imaita, 2018; Misganaw and Singh, 2019; Ajmal, Yasin, and Norman, 2017; Salome and Ofunre, 2019; Tavallaei and Ahmadi, 2018; Ahmed Sheikh, Shahzad, and Ku Ishak, 2016; Usman and Oyefolahan, 2014; Al-Somali, 2011; and Shemi, 2012).

#### **4.2.4.2 Complexity of Technology**

Complexity of the technology refers to the degree to which technology innovation is relatively hard to understand and deploy (Rogers, 2003, P: 257). The more it takes to understand and to function the technology, the more complicated and difficult is the technology (Rogers, 1995). The more compound technology is, the more uncertain is the adoption (Premkumar and Roberts, 1999). Therefore, the relationship between adoption of new technology and complexity is negative (Rogers, 2003). The fear of complexity of technology may delay some owner/managers in considering the IT adoption and implementation in their organisations. Jennex and Amoroso (2002) stated that firms require to improve a business strategy for the specific technology innovation that want to adopt for overcoming technological complexities.

Various Information Technology studies have found the complexity of technology have a significant impact on technology innovation adoption (Chong, Bian, and Zhang, 2016; Shaltoni

*et al.*, 2018; Al Zoubi and Al Zoubi, 2019; Qashou and Saleh, 2018; Pathan *et al.*, 2017; Almoawi, 2011; and Hussein, 2009). New technology applications such as E-Marketing or e-commerce, belong to the unit of information and communication technologies that deploy standards and protocols with a variety of hardware and software which make the implementation and adoption complex (Premkumar and Roberts, 1999). Extant review of literature on the influence of complexity shows mixed findings. For instant, the less is the perceived of managers/owners of the complexity, the greater is the adoption of technology systems in Korean firms (Kim *et al.*, 2010), Vietnamese and Taiwanese firms (Lin and Nguyen, 2011). Moreover, studies by Lin and Nguyen (2011) and Ayo *et al.*, (2010) found that PEU is positively related to the degree of adoption of technology innovation. However, in a study by Thong (1999), it was found that there is no relationship between complexity of technology and the degree of adoption of technology innovation of IOS among Singaporean businesses.

#### **4.2.4.3 Cost Effects**

Adopting IT/IS technologies in a firm needs different physical infrastructure such as: hardware, software, IT experts, and internet system, that all are quite costly for firms. The expenses and budgets that devote for a particular technology, influence the speed of utilisation and implementation. The less budget spends on a particular technology, the more possible and quicker the technology adoption (Premkumar and Roberts, 1999; and Wymer and Regan, 2005). Therefore, among the challenges that delay the growth in firms, the problem related to finance and cost is one of the most important factors, since it is associated to the firm's financial resources that can be used for setting-up, purchasing essential ICT for implementation, consultancy charges, and preparation, training the employees, and the cost of websites, software, hardware, and other infrastructure's maintenance (Mutula and Van Brakel, 2012; Lee *et al.*, 2011; Mutula and Van Brakel, 2007; Idisemi *et al.*, 2011; Shemi, 2012; and Alrousan, 2014). Although, adoption and implementation of all technology innovations might be costly however, ICT is a beneficial mean for organisations and government as it lowers various costs (Chaffey *et al.*, 2016), gives the capability to send data in digital layout with the lowest costs, diminishes the cost of directing the supply chain (Gallagher, 1999), decreasing selling/buying and obtaining (WTO, 2001), offering the prospects for both organisations and customers to establish (Kehoe, 1998), and reducing the after service costs (Hawkins, 1998; and Rahayu, 2015). Table 4.5 demonstrates the cost types described earlier.

**Table 4.5:** The Types of Costs Derived from Technology Adoption

| N  | Items  | Drivers/Barriers |
|----|--|------------------|
| 1  | <b>Costs of Communication</b>  | Driver           |
| 2  | <b>Deliver information in digital format</b>                         | Driver           |
| 3  | <b>Reduce the cost of supply chains</b>                              | Driver           |
| 4  | <b>Reducing selling cost</b>   | Driver           |
| 5  | <b>Reduce buying cost</b>  | Driver           |
| 6  | <b>Providing opportunities to sell</b>                               | Driver           |
| 7  | <b>Reducing the cost of customer service and after-sales service</b> | Driver           |
| 8  | <b>Implementation cost</b>   | Barrier          |
| 9  | <b>Maintenance cost</b>  | Barrier          |
| 10 | <b>Distribution costs</b>  | Barrier          |
| 11 | <b>Instalment, setting up, hardware and software</b>                 | Barrier          |
| 12 | <b>Cost of Internet connection and telephone charge</b>              | Barrier          |
| 13 | <b>Cost of implementing ICT infrastructure</b>                       | Barrier          |
| 14 | <b>Delivery infrastructure</b>                                       | Barrier          |
| 15 | <b>Increase saving</b>   | Driver           |

Source: adopted From Hamed (2009)

Technology Innovation adoption and implementation cost factor has extensively been tested since the term, “cost” is a main element of the efficacy measurement of organisational performance (Bazazo *et al.*, 2017; Morteza *et al.*, 2011, and Seyal *et al.*, 2005). The extant literature suggests the cost as a variable that hinders the organisation’s decision for adoption and implementation of technology (The higher the costs of adoption, the slower the adoption and implementation is) (Idisemi *et al.*, 2011; Shemi,2012; Alrousan,2014; Tauringana,2019; Sheikh, Shahzad, Ishak, 2017; Bazazo *et al.*, 2017; and Erum, Rafique, and Ali, 2017). For example, Alam (2009) who conducted a study on 645 sampled firms in Malaysia, suggest that cost has a significant relationship with the technology adoption. The greater the degree of concern on cost of adoption and implementation, the lower the IT-intensity is in firms.

On the other hand, some studies (Sila, 2013; Cloete *et al.*, 2002; Mukti, 2000; Sila, 2013; Morteza *et al.*, 2011; and Al-Somali, 2011) found cost as a driver, not an inhibitor for technology innovation adoption among businesses. Although considerable number of studies

focus on the cost, but the majority of the scholars focuses on cost as an inhibitor factor of technology adoption. However, there is a lack of research that focuses on cost as a driver factor of technology adoption and implementation and little research studies relationship between cost and the level of technology adoption within firms from its cost benefit perspective. Hence this study under financial context, will examines the influence of cost and benefit toward the technology innovation adoption by organisations.

#### **4.2.4.4 Perceived Benefits**

Perceived benefits refer to the level of the acceptance of the probable advantages and benefits that technology innovation can provide for the company as a result of adoption (Tiago and Maria, 2010; and Iacovou *et al.*, 1995). In the other word, perceived benefits related to the anticipated rewards from the technology innovation, and the extent to which, individuals and organisation acknowledge the relative advantage of the technology innovation can bring to the organisation (Seyal *et al.*, 2007; and Chibelushi and Costello, 2009); or are the expected returns on investment in innovation (ROI) (Chwelos *et al.*, 2001). There are numerous advantages offered by technology innovations such as reducing the organisation cost, time processing, growth in market share, and the productivity enhancement (Turban *et al.*, 2010) which is classified into direct benefits (operational investments result from productivity) and indirect benefits (indirect benefits are prospects, provided by deploying the new technology). (Table 4.6) (Pfeiffer, 1992; and Iacovou *et al.*, 1995).

Due to the cost of the adoption, a realistic adopter would only devote investment in a technology that either support the firm to resolve the existing issues or offer new business opportunities (Beatty *et al.*, 2001). Moreover, the more the management understands the advantages of technology innovation, the more possibility on devotation of more financialvresources (Tiago and Maria, 2010). Conversely, the less, the perception of managers/owners from the perceived benefits of technology innovation, the more uncertainty and resistance for the adoption of ICT (Kapurubandara and Lawson, 2006).

**Table 2** Potential Benefits from Adoption of Technology Innovation

| Benefits  | Reasons   |
|---|---|
| <b>Direct Benefits:</b><br>Increased cash flow                | - Workforce savings; Exclusion of paperwork.  |
| Convenience of payments                                       | - Increase in payment methods (Activated as Click of the mouse).<br>- Reduce of risk related to carrying cash.<br>- Better scope of business transactions (Competitive Powers). |
| Reduced transaction costs                                     | - Faster exchange processing of information.  |
| Reduced inventory levels                                      | - Reduced ordering costs; quicker order cycle.  |
| Developed information quality                                 | - Enhanced accuracy and accessibility of information.   |
| <b>Indirect Benefits:</b><br>Developed operational efficiency | - Greater information management and increased internal operations due to time and cost reductions.   |
| Developed customer service                                    | - Shorter lead times; more timely information about transaction status.   |
| Increased and expanded trading partner relationships          | - Increased trust through enhanced sharing of information; elimination of errors.<br>- Enhanced capability to participate in Just-in-Time programmes.                           |
| Strengthened capability to compete                            | - Developed ability to go to new markets.<br>- Developed ability to provide better service at a lower cost.   |

**Source:** Adopted from Pfeiffer (1992), Rabie (2013), Ozkan, 2009, Puri (1997), Kuan and Chau (2001), Quayle (2002), and Iacovou *et al.* (1995)

Perceived benefits found to be a positive and significant factor for the adoption of technology innovations of organisation by many scholars (Rahayu, 2015; Ghobakhloo and Tang, 2013; Sheikh, Shahzad, Ishak, 2017; San-Martín and Jiménez, and López-Catalán, 2016; Kumar *et al.*, 2019; Arora and Aggarwal, 2018; Rabie, 2013, Ifinedo, 2014; Seyal *et al.*, 2004; and Ohunmah, 2015). For example, perceived benefits found to be a strong and significant predictor of the level of technology innovation adoption such as electronic commerce (Rabie, 2013), EDI (Zhu *et al.*, 2006), IOS (Thong, 1999), electronic payment (Ifinedo, 2014). Moreover, Duan *et al.* (2012) discussed that firms are likely to deploy technological innovation, if they perceived that the particular technology required would overcome the performance gap or open new business opportunities. This present research predicts that, if the owner/managers, experience some of the benefits of technology innovations is more expected to enhance the degree and level of adoption.

#### **4.2.4.5 Lack of Payment Facilities**

Most firms and customers within the market face severe restrictions in regards of the connectivity, capability to pay, distributions, inclination to do purchases through webpages of firms, credit cards ownerships, and access to other resources of payment for online buys and availability in regards of physical distribution. Moreover, the lack of payment facilities such as credit cards have prohibited the completion of transactions in some developing countries. For example, in Iran due to the sanctions, both individual and organisation cannot use Master card nor credit card/visa card or any other debit card which stop the firms on conducting international business.

#### **4.2.4.6 Lack of Reliable Power Supply**

Another condition that influencing the adoption of technology innovation is the unreliable power supply or electricity to run IT facilities. This is more visible in less developed countries. For example, in countries like Tanzania (Mercer, 2005) and Botswana (Shemi, 2012), prior researchers found that the shortage of power supply or electricity stopped organisations particularly in countryside from adoption of technology innovation systems. It is believed that insufficient power supply condition in Nigeria is very probable to delay the adoption of new technology (Onyema, 2011). Moreover, Agboola (2006) found that shortage of power supply and applicable tele-communication infrastructure is one of the main variables responsible for low level of adoption of information systems. In general, national infrastructure is a combination of a country's physical structures such as: transportation, electricity, postal and delivery services, internet sources and connectivity (Arreymbi, *et al.*, 2008). The national infrastructure, particularly the power supply, has been found to lead the firms to challenges and difficulties (Ihua, 2009; and Adenikinju, 2005) with negative influence to the level of IT adoption. Developing countries heavily rely on national network for power supply (Ihua, 2009), Whereas industrialised countries' power supply is not considered a predictor for the technology innovation adoption. Thus, power supply in developing countries is considered as an important factor for technology innovation due to the supply irregularities. Studies conducted by Irefin *et al.* (2016); Onyema (2011), Akintola (2011), Arreymbi, *et al.* (2008), and Akpan-Obong (2007) found that lack of power supply is negatively influence the adoption process and implementation since, technological tools consuming considerable power supply. With the availability of adequate infrastructure, particularly electricity supply, the adoption process of firms will be increased with continuous usage (Irefin *et al.*, 2016).

#### **4.2.4.7 Language Barrier**

Several prior studies have highlighted the language barrier as a factor that discourages many individuals in developing countries from contributing to technology adoption process (Vatanasakdakul *et al.*, 2004; Simmons, 2016; Sadek, 2016; and El-fitouri, 2015). They (*ibid*) assert that IT and IS applications are more advanced in Western countries with English language as it is the key language for the communication and thus, it is taken for granted that individual within other non-English spoken countries require to instinctively know and understand the language that may not be valid in other contexts. The developments in ICT appear to be of minor significance to many cultures since, it is believed that such dissimilarity can form and drive nation's dependency toward technology innovation itself, and that is why some certain cultures are unlikely to use recent innovations such as wireless communications and web-specific technologies (Beekhuyzen *et al.*, 2005).

Khasawneh and Ibrahim (2008) state that while most information technology applications are initiated under the developed nation 's language, individuals in countries be able to effortlessly employ the new technology with no language barrier. However, individuals in developing countries utilise dissimilar languages than those used in developed countries. This scenario unintentionally could make challenges in the adoption of technology innovation (Khasawneh and Ibrahim, 2008). Scupola (2012), found negative impact of language that hindered many Chinese organisations from deploying a certain technology innovation was the language barrier. Moreover, Beekhuyzen *et al.* (2011) found that the language barrier significantly impacts the adoption of new technology and suggest that firms can overcome this barrier with the support of multi-lingual applications. Furthermore, Dahnil *et al.*, 2014; Gyamfi, 2016; Bataineh and Al Mutawa, 2016; El-fitouri, 2015; Aidah, and Ngemba, and Hendra, 2017 empirically studied the decision of organisations on adoption of IT/IS in their businesses, found no significant relationship between language and the technology innovation adoption.

#### **4.2.4.8 Lack of Internet Address Space**

Another factor that has been stated by few scholars (Chibelushi and Costello, 2009; Shemi, 2013, and Gyamfi, 2016), is the lack of internet address space. Chibelushi and Costello (2009) and Gyamfi, (2016), discussed that the existing internet generation is facing a problem of lacking the address space because of the congregation of smart mobile phone usage, growth of Information Technology and Information System adoption in developing countries, extensive deployment of the Radio Frequency Identification (RFID) tags, etc. Moreover, Gyamfi (2016)

state that this issue can continue until the next Generation Internet Protocol version 6 (IPv6) is deployed by all businesses. This factor has been tested by two studies, found lack of internet address space has no significant impact on the adoption and implementation of Information technology. Hence, this study will further investigate the significance of this factor.

#### **4.2.4.9 Compatibility**

The perceived compatibility is an element of the Diffusion of innovation Theory (DOI) refers to the degree to which a particular technology innovation fit with current system, organisational environment and culture, work practices, current values, former experiences, and possible requirements. A technology innovation could be accepted by individuals and organisation, if it is tune and compatible with these accepts (Rogers 2003; and Morteza *et al.*, 2011). Compatibility between firms' policies and technology innovation would make the adoption process easier in a more familiar perspective (Rogers, 2003). On the other hand, compatibility is also associated to the extent, to which the technology innovation meets the customers/suppliers' needs. if they perceived that the adopted technology is compatible to their needs, this usually speed up the adoption process (Rogers, 2003; and Rahayu, 2015). If the innovation technology deemed by the firm be irrelevant to the needs of the customers/suppliers, although the innovation technically and financially appears to be useful in performing the tasks, it might be rejected by them even if it generated better-quality results (Rogers, 2003).

This study considers compatibility as one of the possible factors that influence the adoption of E-Marketing. Many scholars found the perceived compatibility have a significant and positive relationship with the adoption of various technology innovations (Samat *et al.*, 2017; Faqih, 2016; Purwandari, Otmen, and Kumaralalita, 2019; Qashou and Saleh, 2018; Bazazo *et al.*, 2017 Wismantoro, Aryanto, and Widyatmoko, 2017; Ahmad *et al.*, 2014; Aziz and Jamali, 2013; Ghobakhloo and Tang, 2013; Adewale *et al.*, 2013; Almoawi and Mahmood, 2011; and Kilangi, 2012) For example, in the study conducted by Huang *et al.* (2006) in Taiwan found that individual's technology acceptance is determined by perceived compatibility, as a significant predictor, whilst Shareef *et al.* (2011) recommended that when reflect on social norms, behavioural characteristics, society, and culture are essential fundamentals of the compatibility variable. Furthermore, Premkumar and Roberts, (1999) found compatibility as significant factor that influence the IS adoption positively and can lead to significant transformations to the organisation's work practices that can reduce the resistance to change of organisations.

There are few studies however, found no significant relationship between the compatibility and adoption of technological change (Chong *et al.* 2009; Wongpinunwatan and Lertwongsatien 2003; Ramdani *et al.* 2009; and Lin and Lin 2008). They (*ibid*) discuss that compatibility might be less effective when the technology innovation is disrupting especially when the transformation is from the traditional business model, the whole production systems transform, and the supply change changes. For example, Lin and Lin (2008) highlight that the compatibility has significant impact on the initial stages of adoption but not significant to the extent of execution since the technology adopted in the organisation might already completed the necessary organisational transformation, decreasing the impact of compatibility.

#### **4.2.4.10 Relative Advantage**

Relative advantage a factor from the DOI theory has been studied very broadly in previous studies and it is found to be a significant and positive factor developing and using steadily in business and marketing studies (Rabie, 2013; Al-Somali,2011; Hung *et al.*, 2011; Alrousan, 2014; Abou-Shouk, Megicks, and Lim, 2013; Ahmad *et al.*, 2014; Al-Alawi and Al-Ali, 2015; Aziz and Jamali, 2013; Shaltoni *et al.*, 2018; Qashou and Saleh, 2018; Garg and Choeu, 2015; Awiagah, 2016; and Rahayu and Day, 2015). In fact, diffusion of technology is mainly considered in terms of its benefit, the greater the profit from a technology innovation, the sooner adoption will transpire. The term “Relative advantage” refers to the probable benefits and the effectiveness result from information technology applications (Rogers, 1995). The level of relative advantage is measured by various contexts such as economic or technical factors. For example, several scholars expressed relative advantage as financial profitability, increased prestige of organisation in its industry or among the suppliers/customers, and social benefits (Megicks, and Lim, 2013; and Ahmad *et al.*, 2014).

In fact, these measurements are associated to the insights of individuals about the technology innovation’s influence on the firm’s performance (Tabak and Barr, 1998). Lee *et al.* (2004) found the positive impact of relative advantage on the technology adoption and stated that when an IS innovation is apparent to provide more benefits over the organisation’s existing performs, it is more expected to be implemented and the organisation would initiate the experimental stage. Moreover, Abou-Shouk *et al.* (2012) assert that firms adopt new innovation technologies to strengthen current competitive advantage, transcend current competitors, discourage new competition, and to generate more profit. Rabie (2013) found that relative advantage is the only factor for differentiating adopters from non-adopters in all types of

adoption (E-Marketing, e-commerce, EDI, etc.). In the other word, the perception of firms from the technology innovation's relative advantage is vary from the perception of non-adopters (Iacovou *et al.*, 1995).

#### 4.2.5 Legal and Regulatory Factors (External Related Factors)

Adoption of ICT applications particularly in developing countries' context, generally suffer from lack of policies and regulations or vice versa, and institutional restrictions which result from inadequate market experience and because of benefiting excessively from technology developments. The formation of a supportive environment for technology innovation adoption has shaped majority of the policymaking discussions since 1990s (Zhu and Thatcher, 2010). Undeniably, information technology and ICT rules and regulations are very essential for the internet market as it can simplify or hinder the firms to adopt IT adoption. In fact, the accessible environment of the Internet conveys with it many problems including hesitation, lack of clearness, fraud, and card misuse, that in turn pose exclusive requests on regulatory support. It is extensively accredited that a country's government may make encouragements and difficulties to adoption and use ICT. Davidson (1989) discussed that an unfavourable tax scheme, complex policies and regulations can severely hinder companies from the adoption of ICT. While ICT and technology innovation do not have any restrictions, the regulation does. Understanding the determinants of organisations' decision to adopt technology innovations is dependent upon the integration of internal and external factors. There were many theories of technology adoption previously explained from the external perspective that were emphasising on the environment and technological factors. This section is focusing on the legal and regulation factor that is also an external and uncontrollable factor.

By reviewing the extant literature, one factor was identified as influencing factor from this context that might impact on the adoption of E-Marketing of distribution firms. Table 4.7 shows the factor related to legal and regulatory context. The next section presents the factor related to legal and regulatory context.

**Table 3:** Summary of Legal and Regulatory Factor Identified in the Reviewed Literature

| N | Factors                                       | No. of Studies Used the Factor (s) | The Related Theory |
|---|---|------------------------------------|--------------------|
| 1 | Lack of Technology Legislation and Guidelines | 9 Studies                          | TOE Framework      |

#### 4.2.5.1 Lack of Technology Legislation and Guidelines

Any technology innovation requires legislations and developed rules, for regulating the flow of the business over the online environment (Awad, 2004). For example, there is a great number of products and supplies that could be purchased and traded illegally over the internet. The lack of legislation and rules such as lack of technology legislation on products/services, piracy of products and services in terms of copyright protection issue, transaction issues, trademark security problem, has led the firms to struggles in finding a solution (Mark 2003; Hamed, 2009). Moreover, online fraud and viruses are also a severe matter that is under study, since major companies have had their computer processors wrecked by hackers (Vernon, 2000; Abou-Shouk *et al.*, 2012; and Alrousan, 2014). Also, the full variety of plagiarised software accessible in the market at minimum or no cost needs copyright and other matters to be measured (Fredricks, 2001, Hamed, 2009). The regulation of technology innovations, build trust and demonstrates the conceivable way forward to use technology innovations. However, laws and deterrence of these difficulties is challenging for governments. Technology innovation legislation could clash with other rule and parameters within a country. Table 4.8 shows these issues.

**Table 4:** Regulation and Rules Issues

| <b>N</b> | <b>Items</b>  | <b>Drivers/Barriers</b> |
|----------|---|-------------------------|
| 1        | Requirement of legislations to control the flow of business.                                      | <b>Driver</b>           |
| 2        | Products and supplies can be purchased and traded illegally over internet.                        | <b>Barrier</b>          |
| 3        | Piracy of goods.  | <b>Barrier</b>          |
| 4        | The lack of rules leads to difficulty for firms in finding a solution.                            | <b>Barrier</b>          |
| 5        | Online viruses becoming a serious matter.   | <b>Barrier</b>          |
| 6        | The regulation of technology innovation will build trust.   | <b>Driver</b>           |
| 7        | Regulation and anticipation are very hard for governments.  | <b>Barrier</b>          |
| 8        | Each regulation could conflict with others in a country.  | <b>Barrier</b>          |
| 9        | Security concerns of network systems.   | <b>Barrier</b>          |
| 10       | Concerns about the use of new technologies with traditional property led to issues such as fraud. | <b>Barrier</b>          |

**Source:** Adopted from Hamed (2009)

There seems to be an extensive emphasis that firms functioning in the industry, where Rules are well-established are found to make technology adoption decisions easier (Premkumar *et al.*, 1994). For example, Yu-hui (2008) conducted an experimental study for investigating the determinant factors of e-procurement adoption in China, found that lack of regulation and policies are negatively impact and hinders the adoption of the technology innovation.

Governments require to build structured framework for electronic and online trading to reduce the taxation obstacles and to strengthen the legal protection of a particular technology innovation (Yuhui, 2008). Ndubizul and Arinze (2002) examined the influence of the quality of regulation and implementation on the increase in level of e-commerce, found that online hackers and poor authorised policies and execution are the main threats. If governments indicate, clear commitment to all types of technology innovation tools, this converts to clear guidelines and policy measures that in turn, inspire organisations for e-transformation (Zhu and Thatcher, 2010; Dutta *et al.*, 2004; and Yu-hui, 2008).

When government shows a strong commitment to the technology innovation, possible adopters would interpret it more positively and therefore, would be more eager to adopt (Yu-hui, 2008). The extant literature proposes that the regulatory environment conception is alike to government rule (Zhu and Kraemer, 2005; Umanath and Campbell, 1994). Prior studies conducted in developing country context (Seyal *et al.*, 2004; Zhu and Thatcher, 2010; Zhao *et al.*, 2007; Al-Somali *et al.*, 2011; Hung *et al.*, 2011; Hudhaif and Alkubeyyer, 2011; and Mrabet, 2017) found that the important role of government in affecting the adoption of technology for firms.

All authorities necessitate regulatory changes to report for “cross-national trade flows”. Sutter (2012) quotes the UK’s E-Commerce Instruction (2000/31/EC) as a sample of technology regulatory. Regulatory support stimulates the growth of technological infrastructure and info that in turn, inspires firms for technology diffusion (Ghobakhloo *et al.*, 2012). On the other hand, the lack of technology regulations considerably influences the new technology adoption. By deploying the TOE model, Pudjianto and Hangjung (2009) found that E-Marketing adoption was the main factor in low adoption activity in Sri Lanka. Instead, Singapore which was a primary adopter, endorsed its benefits to business (Zhu and Thatcher, 2010). Other countries that were simplifying adoption through improvements of infrastructures and facilitating legislation were Iran (Fathian, Akhavan and Hoorali, 2008), Vietnam (Huy *et al.*, 2012), Malaysia (Alam *et al.*, 2008; Ghobakhloo *et al.*, 2012; and Tan *et al.*, 2009), Bangladesh (Al Noor, 2011; Azam, 2007), and South Africa (Mpofu and Watkins-Mathys, 2011).

### 4.3 Gaps in the Literature of Technology Innovation Adoption

#### 4.3.1 Gaps and Discussion on the Theories and Factors

As been reviewed in this chapter, it can be seen that, there is a wide range of theoretical frameworks that have been provided by numerous factors and variables, that role as drivers or barriers of technology innovation adoption and implementation. These studies were based on independent variables that led into the development of conceptual framework. For example, the research conducted by Huy *et al.* (2012) was based on sixteen independent factors, while Al-Somali (2011) identified nineteen and Rahayu (2015) twelve independent variables to study of technology adoption in firms. Another remarkable point gained from the review of extant literature was that similar studies were generating inconsistent results.

For example, management support found to be a significant factor of technology adoption in studies by Hussin and Noor (2005) and Shemi *et al.* (2013) while Seyal *et al.* (2004) and Sparling *et al.* (2007) found this factor is not statistically significant in the technology adoption context. Moreover, majority of previous studies deployed dissimilar terminology of defining same variable. Various prior studies have deployed different terms to explain the advantages of utilising technology innovation such as technology perceived benefits (Alamro and Tarawneh, 2011; Seyal *et al.*, 2005; Kurnia *et al.*, 2009; Ifinedo, 2011; and Rahayu,2015) or perceived usefulness (Azam and Quaddus, 2012; Yoon, 2009; Lin and Wu, 2004; and Khan *et al.*, 2010). In another indication of such conflict, some studies required to describe technology innovation adoption by focussing on the factor given that if it is a facilitator or a barrier for the adoption of technology innovation. For example, Abou-Shouk *et al.* (2012) considered the perceived benefits of technology adoption, while Heung (2003) examined the barriers of technology adoption process. This extensive variety of identified factors influencing the technology adoption in firms and the different important predictors generated by studies can be accredited to two main explanations:

First, it is assumed that dissimilar socio-cultural environments direct to different level of technology innovation adoption among firms. This fact is confirmed by Scupola (2009) and Zhu *et al.* (2006) who studied the influencing factors of technology adoption in different countries. The findings from the extant literature show that the environmental attributes and technology readiness have more significant role in the adoption decision of firms in developing and developed countries. For example, Kartiwi (2006) found that the determinant factors of

technology adoption in developing and developed countries' context are different due to the cultural differences.

Second, few numbers of studies focused on the different levels of technology innovation adoption in firms, while majority of scholars focused on technology adoption context as a dichotomous factor. However, it was found that different variables affect different levels of the technology adoption (Al-Somali *et al.*, 2011; Hussein, 2009; and Chen and McQueen, 2008). Scupola (2009) underlined that there is a necessity to focus on different rate of technology adoption as dependent factors. For example, Chen and McQueen (2008) have examined the impacts of Hofstede's cultural elements on the individuals' attitude, found different impacts in different levels of adoption.

On the other hand, the review of extant literature demonstrated that different studies explained different categories of factors affecting the technology adoption in organisations: For example, many studies by using the TOE framework, used three contexts for the effective variables: technological, organisational, and environmental attributes (e.g. Al-Somali, 2011; Hung *et al.*, 2011; Mrabet, 2017; Alamro and Tarawneh, 2011; Ghobakhloo *et al.*, 2011; Hao *et al.*, 2010; Seyal *et al.*, 2005; and Scupola, 2009). Moreover, some studies add an additional context such as managerial/individual context, and adoption barriers (e.g., shemi, 2012; Rahayu and Day, 2015; Rabie, 2013; Huy *et al.*, 2012; Ching and Ellis, 2004; and Hussein, 2009). Moreover, Raymond (2001), developed four characteristics of environmental attributes, marketing strategy, individual attributes, and characteristics of electronic commerce, Kurnia *et al.* (2009) grouped the factors into national, industrial, and organisational e-readiness, and environmental pressure, and Abou-Shouk *et al.* (2012), grouped into three categories of essential, marketing, and competition benefits to investigate the influencing factors of technology innovation in Egypt. Thus, the review of extant literature shows that determinant factors of E-Marketing adoption of distribution firms are either associated to groups of theoretical model or other groups developed individually by scholars based on the objectives of each research.

#### **4.3.2 Gaps in the Literature of E-Marketing Adoption**

After reviewing the extant literature on the internet and adoption of technology innovations, several gaps were identified:

- 1- The majority of conducted studies were focusing on SMEs and there were few empirical researches that were focused on the adoption of technology without considering the size of

the firms. This caused to the lack of knowledge on how factors operate in large firms with sufficient financial resources.

- 2- Studies focussed mainly on the adoption of technology innovation from the organisational, technological, and environmental perspective. However, businesses' adoption of technology innovation is also influenced by different factors that derived from the individual's perceptions, characteristics, and behaviours.
- 3- The literature on the determinant factors of technology adoption exposed an enormous number of variables that could impact the adoption of technology innovation. For example, Zaltman, Duncan, and Holbek (1973) identified more than 21 contexts or attributes of technology innovation that were determined mainly from prior studies on the adoption and diffusion of technology innovation, Rabie (2013) found 21 variables as the influencing factors for adoption of E-Commerce; or Rahayu and day (2015) found 10 variables in 4 contexts of E-Commerce adoption. Thus, this recommends that more studies on the adoption of technology innovation, are required.
- 4- There were few studies on the adoption of technology innovation in Iran context, particularly on the adoption of E-Marketing (Table 2.4 in Chapter two). Majority of those few studies in Iran context were more focused on the SMEs in both manufacture and service sector. This has led to a scarcity of the ability to solve specific sector's problem in adopting technology innovation as the focus were generally on SMEs in both service and manufacture sectors. These studies attempted to investigate the influencing adoption factors but none of them studied the variables that influenced the adoption of E-Marketing in the distribution sector.
- 5- Majority of the focuses are on the factors influencing the adoption of E-Commerce or E-Business. However, there is a lack of studies conducted in investigating the influencing factors of E-Marketing adoption. There is a need in conducting more studies to investigate the influencing factor of E-Marketing especially in developing countries' context. This is because, as reviewed previously in the extant literature, there are various levels of E-Marketing adoption from the initial stage to the advanced. As reviewed previously, most of the firms in developing countries due to the existence of many barriers, decide not to adopt or they remain in the initial stages of adoption. E-commerce and e-business are more advanced technology innovation and those mentioned firms cannot shift directly into those levels, without having the foundation and developed infrastructures.
- 6- Most of the conducted studies are in developed countries, and there is a lack of conducted studies in the context of developing countries and in particular, the Middle Eastern developing countries. However, there is a great need to conduct more studies on the influencing factors

of E-marketing adoption in the Middle Eastern developing countries, as explained in chapter Two, the number of internet users and internet penetration in this context is higher than developed countries, however not many businesses take the opportunity to embrace their business strategies with such technology application.

- 7- Finally, there is a lack of researches conducted to investigate the impact of E-marketing on the performance of the firms as explained in chapter Two. Only few studies, as explained previously focused on this perspective of technology innovation adoption. There is a requirement to focus more on the adoption of technology innovation from this perspective, particularly in developing countries context. If the organisations be more aware of the impact of technology adoption on their business performance, they would more consider the adoption or shifting to higher level of technology adoption.

#### **4.4 Preliminary Research Framework and Literature Synthesis**

Review of literature and the theories of new technology show that the impact and influence of E-Marketing adoption on distribution firms' marketing performance depends on different contexts. Based on this view, current study has developed a preliminary framework out of the review of the extant literature of the theories of new technology to justify the knowledge gaps in the study area.

First, 43 determinants of E-Marketing adoption of distribution firms that have been investigated through reviewing the extant literature which will be re-examined to suit to the current study context. Semi-structured interviews will be developed by focusing on the aims and objectives of the current research to purify the 43 variables that have been investigated through reviewing the extant literature. Moreover, in the literature there were various discussions on the classification of determinant factor of E-Marketing adoption. Even though the determinant factors of E-Marketing adoption can be classified to drivers and hindering factors, scholars in this context (e.g., Abou-Shouk, 2012, Rabie, 2013, Shemi, 2012, and El-Gohary 2009) classified the influencing factors into external and internal categories which are both appropriate and practical for this study and context. Therefore, this study, categorise the factors that might impact the adoption of E-Marketing of Iranian distribution firms, into external and internal factors. Accordingly, for the aim of conducting this study, the investigated internal and external factors of E-Marketing adoption by Iranian distribution firms were classified into 3 sub-categories of: Environmental, Technological and Legal and Regulatory characteristics as external and uncontrollable factors, and 2 sub-categories of Individual and

Organisational characteristics as the controllable and internal factors. Therefore, the new context of determinant, makes an originality in this current research, as no prior study has been discovered study on this perspective.

Second, this research reviewed 10 theories of new technology and found 43 variables suitable with the research context and research aims and objectives. These theories that are underlines the integrative conceptual model introduced by El-Gohary (2009); Rabie (2013); Qashou, (2017); Shemi (2012); Al-Somali (2011); Alrousan (2014); Ohunmah (2015); Aldwsry (2012); Idris, Edwards, and McDonald (2017); Abdulkhakeem, Edwards, McDonald (2017); and Rahayu (2015). The focus of these theories and the limitations of each were explained in Chapter 3, and the justification on choosing these theories explained in chapter 3 section 3.6. This integrated approach, could describe factors of E-Marketing adoption of distribution firms in a wider perspective including environmental, individual, organisational, technological, and legal and regulatory attributes. This research integrates theories of new technology including i) TOE framework; ii) Decomposed Theory of Planned Behavior; iii) Perceived E-Readiness Model; iv) Resource-Based View; v) Model of PC Utilisation; vi) Diffusion of Innovation; and vii) Motivational model. These theories are selected since they are the most dominant and adopted theories among the studies conducted in the study context as well as these theories lead to a holistic approach focusing on both internal and external factors. Moreover, only few studies integrated more than two theories of technology adoption were focus only to one perspective context. the research extends the integrative model by deploying the stated theories as they have never been integrated into one model by prior studies. 43 variables were derived from these theories which will be re-examined in the qualitative phase for the purification.

Two new perspectives of determinants so-called individual/managerial factors and legal and regulatory attributes driving distribution firms' E-Marketing adoption, will also be examined in this study. Therefore, these two-new contexts of determinants make a uniqueness in this current study, as no prior study has been determined study on these two perspectives along with TOE framework.

Third, in term of E-Marketing implementation constructs (see figure 4.1), this study considers two variables suggested by El-Gohary (2009), Al-Somali (2011); Lee and Tsai (2005), Mathews *et al.* (2019), Setiowat (2015), Hussein (2010), Iddris and Ibrahim (2015), Bharadwaj *et al.* (2013), Brodie, Winklhofer, Coviello, and Johnston (2007), and Azam (2014) including:

i) the level of implementation; and ii) the tools of E-Marketing implementation. Utilisation of these constructs is based on the following reasons: i) these constructs have been confirmed statistically as greatly important constructs of technology adoption context in prior studies; and ii) the constructs were vastly used in prior studies and are the most used ones within Iran context (see chapter 2, section 2.4).

Fourth, in regard of marketing performance measures (see figure 4.1), this study considers both financial and non-financial perspectives to investigate the current and future marketing performance of the distribution firms. Two variables will be examined from the financial standpoint i) profitability growth; and ii) sales growth. Since only these two financial variables could be examined either quantitatively or subjectively as prior studies (Yeoh, 2014) suggested gaining firm's financial statements offers challenges to scholars as companies prevent to reveal commercially sensitive data. Moreover, four non-financial performance measures will also be examined, including i) efficiency performance measures; ii) knowledge obtained as a result of technology innovation adoption; iii) operational performance measures; and iv) realisation of firm's objectives (refer to chapter 7, section 7.4.1).

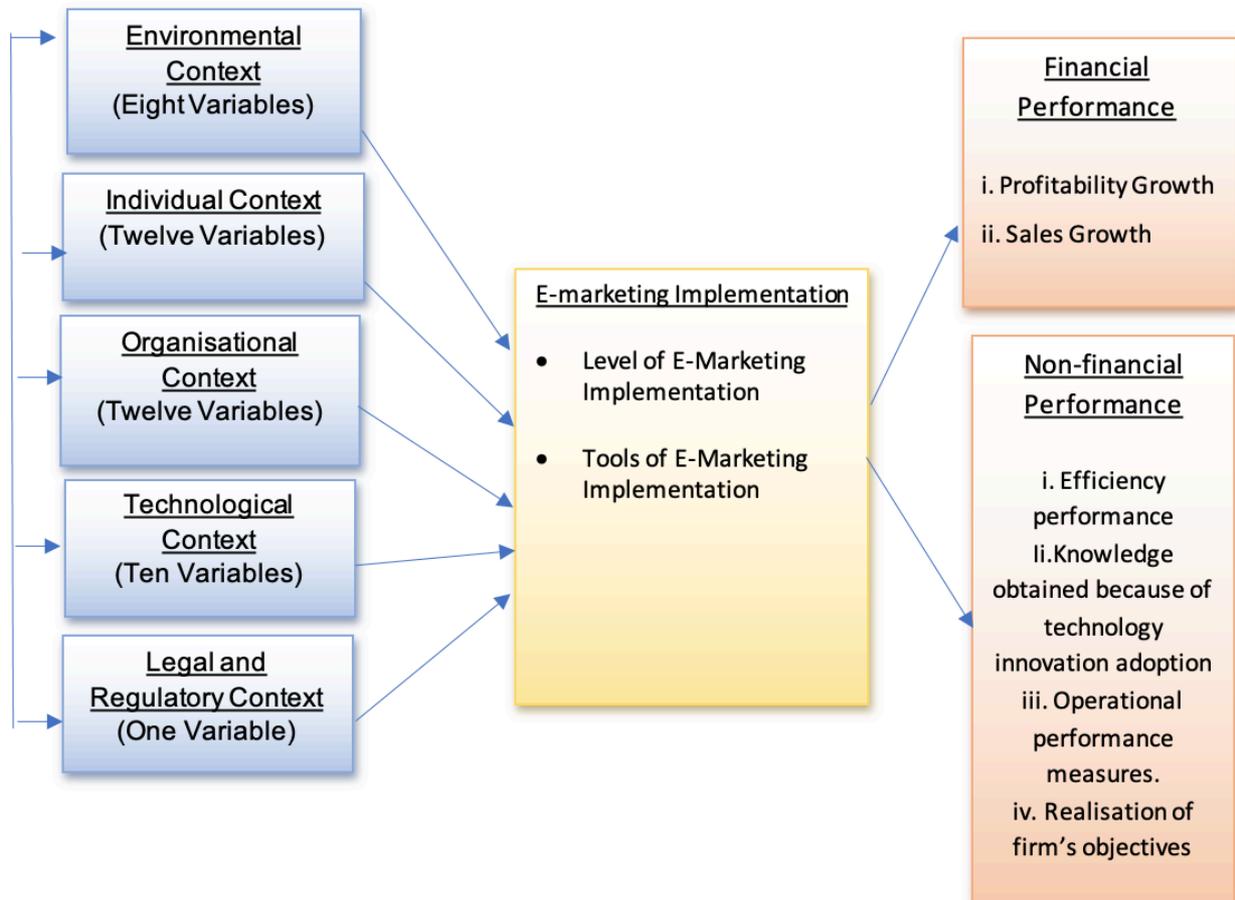
Fifth, in regard of the country of investigation, this research deploys Iran as the study setting of the literature review has exposed that there was no conducted study in Iran from 1993 to 2021 on the E-Marketing adoption of distribution firms (see table 2.6 in chapter two). Therefore, this opens a wide prospect to conduct a research in the study area in Iran as the integrative conceptual framework is still scarce in the prior studies.

Finally, in regard of industrial viewpoint, considering an inadequate number of distribution firms undertaking online business in their marketing activities in Iran, this research appeals the sample from all distribution firms in Iran in all organisation sizes to avoid inadequate data. The determinants will then be examined in regard of unities and differences according to other industries.

These 43 variables will be purified with exploratory interviews. The E-marketing implementation tools (E-Marketing tools and Levels of E-Marketing) and the Marketing Performance measures were discussed in chapter 7 which are as the results of the literature review and interview results). These 43 variables were chosen from the literature review by bearing in mind that Iranian distribution firms are on the deprived end of the digital era and

might miss the advantages of E-Marketing as well as keeping in mind that implementing E-Marketing can be throughout different tools, and levels of implementation. The preliminary study framework synthesis from the review of extant literature and the theories of new technology demonstrated in Figure 4.1.

**Preliminary Research Framework of the Influencing Factors of E-Marketing Adoption and Current and Future Marketing Performance**



**Figure 4.1:** Preliminary Research Framework

## 4.5 Chapter Summary

One of the main purposes of this study is to identify the influencing factors of the E-Marketing adoption by distribution firms. Towards accomplishing this end, various theories of new technology adoption such as TOE framework, Theory of Planned Behavior, Theory of reasoned Action, Technology Acceptance Model, Decomposed Theory of Planned Behavior, Perceived E-Readiness Model, Resource-Based View, Model of PC utilisation, Diffusion of Innovation, and Motivational model were presented and discussed. By relying on the findings from chapter Three, the main findings of this chapter are that most of the previous studies focuses upon external characteristics of the firms, whether the environmental or technological attributes that are uncontrollable factors rather than internal aspects such as organisational or the individual attributes such as the management support, PUE, degree of formalisation, or Management and employees' IT knowledge. Moreover, there is no focus and concentration on the legal and regulatory related factors such as technology legislation issues. This outcome demonstrates an obvious gap in future study to investigate and focus more on internal factors such as individual/managerial and organisational attributes, as well as rules and regulatory attributes in depth.

The literature was also examined to differ according to the type of technology innovation tool, industry, countries of the conducted study, tools, and levels of implementation. It was found in the literature that different levels of implementation have different influencing factors that inspire firms to adopt different technology innovation. These outcomes open a gap for future to approve the determinants of organisation's E-marketing adoption according to their study scope and background.

It was also found that some factors were studied and deployed in a limited number of prior studies, that make those factors hard to be generalised. For instance, there has been quite limited studies that examined the relationship of the adoption of job fit with PC use, long-term consequences of PC use, organisational culture, the business partner affiliation, marketing capabilities, level of decentralisation, lack of payment methods, language barrier, lack of internet space, and normative social influences. Neither does the extant literature pay wide attention for studying determinants of E-Marketing adoption in distribution sector (when compared to the frequency of studies into SMEs or other sectors such as tourism and hospitality or internet banking studies). There was no study found to study and focus on distribution sector

whereas the current study attempts to develop in a more specific industry and scope by investigating the determinant s factors of E-Marketing adoption in distribution sector.

While prior studies implemented and conducted study mostly on organisational and external attributes as well as having a single study approach either quantitative or qualitative, this research discusses a holistic approach need to be undertaken to achieve to an all-inclusive outcome. It is also found that individual and legal and regulatory attributes impact on E-Marketing adoption have been deployed and integrated with other contexts rarely in prior studies as well as no previous study used the long-term consequences of PC use and job-fit with PC use in the individual context. Hence, this could also be a novelty of future study area of determinants of distribution firms' E-Marketing adoption where these contexts can extend the integrative conceptual model by embedding the model of PC utilisation.

Finally, the chapter ends with a developed preliminary study framework. This preliminary study framework will then be a guide for conducting further activities in this study. All the factors found within the extant literature will be methodologically examined to determine the relative significance of each one of these variables as a first step towards the construction of the conceptual framework.

## Chapter 5: Research Methodology

### 5.1 Introduction

When researcher designs a study project, the available choices and pathways are countless, for instance, the preferred method could be quantitative, qualitative or both which is known as mix method (Bryman, 2016). Conversely, an important factor in describing the research strategy links to how the researcher reflects these different options, and the clarity of assumptions in determining, which design is better to be adopted (Saunders and Lewis, 2012). In this case, the researcher needs to choose an appropriate research strategy and link it to the right research design to illuminate the study problems and questions (Bryman, 2016; and Baker and Foy, 2008). As Baker and Foy (2008) recommend, when identifying the research problem or question, the researcher need to choose the research approach and suitable research methodology to be able to collect data, that will illuminate the research problem. The research design provides an appropriate framework that allows the research for collecting the data and analysing them.

Afterwards, research method allows the researcher to select an appropriate technique for collecting data (Bryman, 2016; and Kumar, 2008). A well-designed research approach and methodology will also lead to a well-convincing analysis, outcomes discussion. Therefore, a full consideration on each individual method of determining the right research method will be conducted in chapter five. In this regard, chapter five discusses several research approaches, designs and methodologies for elimination of study objectives and questions. This chapter starts with an in-depth clarification of the term ‘research methodology’ and a comprehensive explanation on the importance of research methodology in a research study. The subsequent discussion then concentrates upon mostly social sciences specifically marketing oriented research strategies, since there are frequently adopted by scholars in business, management and marketing researches. The conclusion of literature synthesis leads to an approved research method that summarises formulation of the study population; describing the study sample; selecting suitable data collection techniques; organising the steps of data collection from the field; choosing appropriate data analysis technique; validation methods; and finally discussing processes and issues encountered throughout each phase of the investigation.

## 5.2 Research Philosophy, Methodology, and Strategy

Information technology (IT) research as a compound multi-disciplinary field, can contain particular styles and use diverse research methods. This means a research method with global applicability is highly improbable (Galliers, 1992 cited in Aldwsry, 2012). In other word, there is no particular research methodology that covers all essential information that is required to conduct IT research (Land, 1992). To make the applicable selection of research methodology, scholars require to be aware of the existing research methods, strategies, and techniques, in addition to the essential research paradigms. studies in social sciences can be conducted in qualitative or quantitative or either of them (Sarantakos, 2005; Bryman, 2016; Naresh, David, and Daniel, 2017; and Saunders and Lewis, 2012).

### 5.2.1 Research Philosophy

Research philosophy discusses on the nature of data and the expansion of such information (Saunders *et al.*, 2007) that reflects the researcher's process of understanding the environment being explored (Ticehurst and Veal, 2000; and Kvale, 1996). What seems deep in researches of any context is that "*the researcher's theoretical standpoint impacts the manner knowledge*" is developed and adopted (Snape and Spencer, 2003). These philosophical norms are beneficial in guiding the researchers in their right about what establishes knowledge (ontology), how researchers recognise or hypothesise knowledge (epistemology), determine the ideas employed on such knowledge (axiology), and the methods carried out in studying such knowledge (methodology) (Creswell, 2009; and Mason, 2005). Developing a conceptual framework and selection of an appropriate research method is depended upon the researcher's philosophical expectations about the social world (Fielding, 2010). Based on these Theoretical dispositions, academics are prejudiced in their choice of a specific study approach and research methods that are part of the overall approach (Saunders *et al.*, 2007). Therefore, the decision to utilise a specific approach in a study project affects the types of data to be used and how to collect such information (Rocco *et al.*, 2003; and Johnson and Clark, 2006). The main influence of the deployed research method is the researchers' specific insight of the relationship between their knowledge and the approach by which it is developed. The literature demonstrates that research philosophy should be observed from two essential standpoints namely: i) ontology; and ii) epistemology (Bryman, 2016; Bryman and Bell, 2015; Saunders *et al.*, 2007, 2009, 2012, 2016; Tashakkori and Teddlie, 2010; Hussey and Hussey, 1997; Denzin and Lincoln, 2011; Myers, 2013; Oates, 2006; and Myers and Avison, 2002).

### 5.2.1.1 Philosophical Assumptions in Information Technology (IT) Study

As this study is in the E-adoption and IT field, the researcher confers the study methods from the IT research perspective. Myers (2013) described that; IT studies are impartially new area for researchers that started about early 1960s. Conversely, the field has developed intensely through years. He asserts that, in the initial years, the focus was on the technical features of information technology. Yet, in the late 1980s, more studies were conducted on the business, management, and marketing perspective of information technology, and in early 1990s this area extended to look for problems regarding information technology in organisations. “Information Technology”, as a field of research, has grown to comprise problems such as collaboration between individuals and organisations, inter-organisational structures, Internet and its different marketing tools” (Myers, 2013; and Helal, 2017). Five comprehensive broad types of investigation are defined as follows (Wyssusek *et al.*, 2002; Guba and Lincoln, 1994; Anus *et al.*, 2011; Jaradat and Twaissi, 2010; Creswell, 2009; Alsaif, 2013; Collis and Hussey, 2009; and Maroofi *et al.*, 2013).

- Ontological assumptions: which are the philosophies of existence or the truth of being of phenomena.
- Epistemological assumptions: which refer to philosophies of information, that are concerned with subjects of ‘*what can human know and how can they know it*’.
- Axiological Assumptions: about human nature, in specific, the relationship between themselves and their environment.
- Rhetorical assumptions: which is related with the study language and is based on set of impersonal opinion, descriptions, and the writing styles and use of words in qualitative method.
- Methodological assumptions: Show which study approaches and techniques are considered suitable for collecting the valid experiential data (Orlikowski and Baroudi, 1991, p.8).

These five groups of assumptions have direct impacts for the fifth assumption of a methodological nature, and each one has significant results for the approach in which they intend to examine and obtain knowledge (Roode, 2008). Guba and Lincoln (1994) describe these paradigms as a set of philosophies about the nature of the world and the human’s place in it and the variety of potential relationships to that world and its parts. According to Wyssusek *et al.*, (2002), the purpose of IT in development of individual’s inquiry can only be understood

on the base of complete conceptualisation of assumptions, underpinning the model of inquiry which is known as research paradigms.

### Ontology

“*Ontology is concerned with nature of reality and social entities*” (Saunders *et al.*, 2012; p: 110; Bryman, 2016) and more precisely, concerning on the reality of the entity study (Tashakkorie and Teddlie, 2010). According to El-Gohary (2009) ontological philosophy is associated to the questions such as: “What is the nature of reality? What type of reality exists that can be interpreted? Hence, what is remaining that can be known about it?” According to Saunders *et al.* (2012) and Collis and Hussey (2009), ontology can be resulted from two philosophical sights. The first ontological position is objectivist that emphasises that social objects exist in reality external or independent of to social actors. The second ontological position is the constructionism view which social phenomena are formed from the insights and subsequent activities of social actors.

Objectivists suggest that the organisation’s culture is something that an organisation already ‘has’. On the other hand, the subjectivists offer the values of an organisation as something that the organisation ‘is’ as a consequence of an on-going social interim (Bryman, 2016, p.18, 2016). For instance, when an employee raises his/her hand throughout a firm meeting: if the researcher assumes this event as an occasion happening in this world with an unplanned and effect relationship, and deterministic links, the phenomena could be identified through recognising all reasons that lead to the occurred event (from the objectivism point of view). The answer for this event is probably that the employee aims to ask a question. Though, it can only assist us to identify the reasons that lead to the event. However, this prospect cannot help the researcher to interpret the ‘meaning’ of that occurrence that can only be understood by a constructivism perspective. Becker (1996) stated that culture in the organisation is constantly made and formed by human beings, according to their own viewpoints.

### Epistemology

Epistemology according to (Gray, 2017) is taken from two Greek words of “Episteme” (means knowledge and information) and “Logos” (means model and theory). Brayman (2016); Naresh, David, and Daniel (2017); and Goldman (1999) described epistemology assumptions as the theory and model of knowledge. This assumption is a philosophical contextual that decides on what types of knowledge are valid and acceptable. Consequently, Brayman and Bell (2015), defined the epistemological position as a philosophical assumption that concerns on the

question of “what it (or should be) observed as adequate knowledge in a discipline.” In specific, the question of if the social world may possibly be considered as a natural sciences environment or not. Moreover, according to El-Gohary (2009) epistemology refers to the questions of: “what is the relationship between the objects (Knower) and what can be identified/ known (The object)? and is concerned with, how the human beings know the world and what is the relationship between the known and inquirer?” In social science studies the two main epistemological assumptions are positivism and interpretivist (Bryman, 2016; Bryman and Bell, 2015; Naresh, David, and Peter, 2009; Naresh, 2010; Denzin and Lincoln, 2011; and Creswell, 2010). Denzin and Lincoln (2011) in their recent study suggested that epistemological assumption can be interpreted into five philosophical perspectives namely: i) positivism; ii) Realism (empirical and critical realism); iii) interpretivist or social constructivism; iv) post-positivism; and v) advocacy or participatory position. This research in terms of epistemological approach chose the post-positivism as the philosophical approach. The first four epistemological assumptions and the reason for not choosing them as the current study’s research philosophy has been explained in appendix 17 (refer to appendix 17). Hence, next section describes the post-positivism approach followed by the reasons on choosing this epistemological assumption.

### Post-positivism

This approach is an improved form of positivist approach and is positioned between positivism and interpretivist approach (Denzin, 2010) and has been developed because of the limited structures and challenges that confronted the positivism approach (Lincoln and Guba, 2000). Post-positivists assume that the collaboration with scholars should be minimal (Guba and Lincoln, 2005). They (ibid) assert that the aim is to minimise the weaknesses and limitations in positivism approach. According to post-positivism reality is certainly real based on the natural law however, people cannot acquire the fact from the reality when they detach themselves from directly involve with it (Wahyuni and Aprilia, 2019). Post positives believe in the Probability of an impartial reality and test the traditional concept of the complete truth of information (Phillips and Burbules, 2000). The development of numerical measurement and investigation of individual performance is vital for post-positivists (Creswell, 2009). Conversely, post-positivist believers claim that it is not likely for academics to be sure about their study, but they should be assured about their results and rely on future prophecy (Gioia and Pitre, 1990). According to Bryman and Bell (2015), human activities and human performance are mostly signified in the post positivism research philosophy. Denzin and

Lincoln (2011) recommend that, there is harmonising between both positivism and interpretivist rather than contending with each other. Therefore, both scholars recommend that post-positivism can be described in a mixed methodology study approach. Moreover, some scholars in social science rather to underpin post-positivist method, particularly when dealing with a research that contains the development of theory (as in this study) (e.g., El-Gogary, 2009). Having an epistemological stance is vital, as it helps the researcher: i) to explain problems in regard of research design; and ii) to identify which research designs, according to the specified set of research objectives and questions will work and which will not. Even though each epistemological approach has its advantages and disadvantages, choosing the most appropriate epistemological stance is essentially directed by the nature of the study (Saunders and Lewis and Thornhill, 2016).

#### **5.2.1.2 Combining Ontological and Epistemological Approach in the Research Paradigm**

As described previously, both ontological and epistemological positions will lead the researcher to select suitable way to acquire knowledge about the reality that is known as research methodology. Moreover, Kuhn (1970) was established the term ‘paradigm’ in testing the revolutions in knowledge (Bryman and Bell, 2015, P:35) that refers to a cluster of theories and philosophies that impacts scientists in a specific discipline on what need to be studied, how study need to be done, and how outcomes need to be interpreted. Research paradigms summarises the relationship between ontology and epistemology approach, i.e., how the combination of these two philosophical approaches could precisely and clearly describe the study for the researcher to underpin a suitable methodology. Table 5.1 illustrates the research paradigm assumptions developed in their recent study by Denzin and Lincoln (2011).

**Table 5.1:** Research Paradigm Assumptions

| Issue  | Positivism   | Post-positivism   | Critical Theory   | Social Constructivism   | Participatory   |
|--|--|---|---|---|---|
| <b>Ontology:</b><br><i>The researcher's stance from the nature of reality.</i>                               | Naïve Realist-<br><br>External, detached, and free from social actors. Such reality is logical or apprehensible. | Critical Realist-<br><br>Virtual realism<br>Like: political, gender, economic, Social, cultural, beliefs.                       | Historical Realist-<br><br>Virtual realism<br>Like: political, gender, economic, Social, cultural, Beliefs. | Relativism-<br><br>Local and Precise co-created Realisms.       | Participative Realism-<br><br>The subjective and objective realism co-constructed by the Mind and assumed cosmos. |
| <b>Epistemology:</b><br><i>The researcher's perception in regard of what constitutes adequate knowledge.</i> | Objectivism/<br>Dualism-<br><br>Finding truth.   | Adjusted Objectivism /Dualist-<br><br>Critical norm/<br>Community results:<br>Possibly true.                                    | Transactional/<br>Subjectivism-<br><br>Value-mediate Results.   | Transactional/<br>Subjectivism-<br><br>Co-constructed Outcomes. | Critical Subjectivism in participatory matter with universe. comprehensive epistemology of experimental.          |
| <b>Methodology:</b><br><i>Data collection techniques that usually used.</i>                                  | Experimental -<br><br>controlling. confirmation of hypotheses. Mostly Quantitative approaches.                   | Altered Experimental-<br><br>controlling. critical multiplism. fabrication of hypotheses. might contain qualitative Approaches. | Dialogic/<br>Dialectical  | Dialectical /Hermeneutical.                                     | Political contribution in concerted Action inquest.   |

**Source:** Table Adapted from Denzin and Lincoln (2011, p.100).

Based on Table 5.1, there are adequate practical and philosophical reasons for selecting the suitable research approach of this study. First, with reference to ontological approach, the current study varies from the positivism belief that emphasises on the fact that, there is single fact which can be measured and studied. On the other hand, the researcher believes that the factors Influencing distribution firms' E-Marketing adoption is not only comprehensible from the object of study such as organisations, but instead it could be interpreted from other surrounding factors such as technological, social, and cultural. The study carries out as a part of a thesis could not solely depend on critical philosophy as it relates to the study of past events. Neither constructivism position could describe this study as it comprises of experiential and social based (For example: examination of regular human performance) since the research depend upon other contributing variables from non-behavioural factors for instance financial and business measures.

Second, regarding epistemological approach, Table 5.2 describes the deployment of post-positivism in this study.

**Table 5** Use of Research Epistemology in the Current Research

| Epistemological Philosophies  | Applicability to the Current Research   |
|---|---|
| The research validity arises from peers in the study community, not from the themes being researched (Guba and Lincoln, 2005, 2011). Collaboration with study themes need to be kept to the least (Denzin and Lincoln, 2011). | Factors of distribution firms' E-Marketing adoption will not only be exposed from current theories of new technology but also from professional and expert "practitioners" views and perspective.   |
| Investigation of symmetries and casual Relations between elements of the Phenomena under research (Gioia and Pitre, 1990).  | A list of possible variables that E-Marketing implementation will be tested in relationship to E-Marketing adoption. Furthermore, E-Marketing adoption will be tested in relationship to the marketing performance of distribution firms. |
| The process of understanding "what is happening" can and need to comprise of a search for causality and essential rules and regulations (Phillips and Burbules, 2000).  | This research tries to understand that what variables influence E-Marketing adoption by Iranian distribution firms.   |
| Post-positivism philosophical approach includes Fabrication of hypotheses technique and might contain qualitative approaches in a single research (Denzin and Lincoln, 2011).   | This study deploys both qualitative and quantitative method in a single research. The data collection methods contain interviews and survey questionnaires.   |

**Source:** The Current Researcher

### 5.2.2 Research Methodology

*“Research method is a systematic and orderly approach taken towards the data collection and analysis, thus that information can be obtained from those data.”*

*(Jankowicz, 1991)*

Grix (2002, p.179) explained that a method is different to a methodology. The methodology is concerned with the rationality of a systematic review, in particular with examination of the potentialities and restrictions of particular technique or process, whereas method is related to the processes and techniques utilised to collect and analyse information related to the research question(s) and hypotheses (Crotty, 1998, p.3). Some scholars argue that the word “research methodology” is imprecise (Baker and Foy, 2008; and Bryman and Bell, 2015). Conversely, various scholars endeavoured to further explain upon this term. For instance, Saunders *et al.* (2016) describe this terminology as the philosophy of how study need to be underpinned. They (ibid) suggest that the evaluation of methodological choice is an essential part of determining how a study to be conducted either quantitative, qualitative or mix-methods. Blaikie (2000) described research methodology as a critical assessment of different *approaches and*

*techniques* (Cited in Baker and Foy, 2008, p.110). Guba and Lincoln (1994) have distinguished between research methods and research methodology: As research methods emphasizes on the processes of data collection, analysis and perhaps interpretation while research methodology includes the whole process from the worldview at the beginning of the study process to the last processes analysis (Tashakkori and Teddlie, 2010, P. 51).

### Quantitative Research

This research approach is one of the most used methodology among the researchers to conduct research in social science, refers to the deployment of statistical techniques to examine the social phenomena empirically through developing and adopting theories, constructing hypotheses to confirm the model related to the phenomena (Bryman, 2016). Within the management and business subjects, this research approach refers to selecting statistical resources, linked to social strategies that produced an illustration of how the society was changing (Johns and Lee-Ross, 1998, P.72). This research approach can be conducted through highlighting the quantification in the data collection and analysis (Aleid, 2011) and is mainly relying on developing hypotheses that result from model deductively, the aim is to investigate the model by method of observation and data collection, the results of which, subsequent analysis, would either reject or approve the model (Morvaridi 2005). This research methodology has various forms such as surveys, case studies, grounded theory, and experiments (Bryman and Bell, 2015) as well as the questionnaires, observations and documents as some of its data collection methods (Vogt, 2007). This approach is used to test the developed hypotheses, but it is not generating or determines theories. On the other hand, the collected data in this method is analysed by statistical software (Morgan, 1998). Hence, this approach fits into positivism paradigm that is an approach for the research on people which praises the use of technique (Brayman, 2016).

### Qualitative Research

*“Any kind of study that produces findings not arrived at by means of statistical measures or other means of quantification.”*

*Strauss and Corbin (2008, P: 17)*

Qualitative research method described by Creswell (1994), is an interpretation of people’s behaviour and the causes that control such behavior through asking extensive questions, collecting data in various methods, and reporting them (Creswell, 1994). The purpose of this type of research is to explore and find the answer for research question without considering the

potential relationships among factors as it would be time consuming and expensive. Thus, this method restricted to a single study subjects (Denzin, 1994; and Malhotra and Birks, 2000, p.157). This is beneficial when the research is on a complicated subject that may get the answer for research question by a single yes or no suggestion. Quantitative approach mostly focuses on words and explanations to be able to precise reality and attempts to define individuals and study phenomena in natural circumstances (Amaratunga, 2002; P: 19).

Although, both methods are dissimilar from each other, it is incorrect to oppose them as two opposite methodologies (Morvaridi 2005; P: 3). This study discusses that qualitative research approach, simplifies, and demonstrates quantitative research and this approach does the similar thing with either approaches in helping to improve the existing acquisitive knowledge (Bryman, 2016 and Clark 1998). Bryman (2016, P: 27) discusses that, both research methodologies are diverse ways of knowing. Furthermore, Clark (1998) claims that, theoretically, these two research methodology paradigms are not as different or equally ill-assorted, as is usually conveyed. Conversely, qualitative research emphasises on meaning and interpreting the context (Denzin and Lincoln, 2011).

Qualitative research methodology in the explanatory paradigm is to comprehend and interpret phenomenon based on what sense people bring to the context (Denzin and Lincoln, 2007, P; 3; and Malhotra and Birks, 2000, P: 160). They (ibid) stated that, this method can collect the data directly by interviews, notes, field-memos, recordings, discussions, and pictures or indirect with observation and reflections. This research method is a suitable approach for an in-depth understanding of the context (Liamputtong, 2011). Moreover, this methodology does not need any generalisation of the study findings (Hesse-Biber and Leavy, 2005). Qualitative methodology allows the researcher of using small sample population, which can be decided while conducting the data collection (Bryman, 2006).

### Triangulation Strategy

Triangulation strategy is a valuable and broadly deployed approach (Robson, 2002; P: 174) since it tests the study problem from more than one perspective. Hence, the research results become stronger. This method is deployed to enhance the credibility and validity of study findings (Cohen, Manion, and Morrison, 2000) and is defined from diverse perspectives: Whilst Denzin (2010) describes it as the combination of both quantitative and qualitative methodologies in the research of the similar phenomenon, Saunders, and Thornhill (2003) describe it as the deployment of various data collection techniques in one study. Furthermore,

Denzin (2010) classified the triangulation strategy to four different types: i) data triangulation (the adoption of a combination of data sources in a research); ii) investigator triangulation (the use of diverse researchers); iii) theory triangulation (the deployment of numerous theories); and v) methodological triangulation (the adoption of several approaches to study an individual problem). Noticeably, there are number of various methods, and it is vital to select a suitable resource to explore the research question. Triangulation strategy, by combining different models and theories in the study, can help in confirmation of the essential prejudices result from the adoption of a specific technique or a particular observer are overcome (Joppe, 2000), helps researcher to investigate and describe compound human behaviors through adoption of different techniques (which improves the study as it proposes a range of databases to illuminate various sides of a phenomenon), support the researcher in approving the developed hypotheses, and finally helps to justify the outcomes of a research (Noble and Heale, 2019).

### **5.2.3 Research Strategies**

According to Baker and Foy (2008), the process of developing the formulation of a study strategy indicates a stage of research that the researcher explicitly states the logic of investigation. However, scholars who discussed about research methodology have not achieved to an agreement in describing the term 'research strategy'. For instance, While Bryman (2016, P:695), defined the term research strategy to an overall orientation for conducting social sciences research and selecting an appropriate research strategy of qualitative, quantitative or either of them. Whilst Baker and Foy (2008) described research strategies as a first step for providing validation and practicing suitable processes to answer the research questions. Instead, Saunders *et al.* (2012) categorised the research strategies into seven different types namely: i) Survey; ii) experimental; iii) case study; iv) ethnography; v) action research; vi) archival research; and vii) grounded theory. They (*ibid*) suggested that these seven research strategies are used in prior research to answer the research questions and met the research objectives. Research approaches also relate for defining research philosophy and model that links to the selection of both inductive and deductive research approaches. In Overall, preparing research strategy will comprise of consideration of research approaches, philosophy, and paradigm (Bryman, 2016). Subsequently, these contemplations are discussed further in following sections to ensure that research methodologies and approaches planned for this study are methodologically valid and strong. It is important to selecting an appropriate research methodology to produce a strong link with the research problem and to achieve

reliable outcomes. Studies, depending on their nature, type of questions, objectives and the hypotheses have different methodology. As well as depending on available resources and the capability of the researcher in conducting the research study (Hair *et al.*, 2006; and Saunders *et al.*, 2012).

### **5.2.3.1 Research Approaches**

*“It would be fairly usual, for instance, to start with an exploratory study to arrive at a tentative theory inductively before testing that theory in a deductive piece of quantitative work” (Saunders et al., 2016).*

The research approach used in the study could be both deductive and inductive approach and the selection between these two approaches influenced by whether current theories are investigated in a different background of research or whether theory is presented at the end of study based on the collected data (Saunders *et al.*, 2016). Bryman (2016) asserts that, when the theory leads the study refers to deductive approach, whereas in inductive approach, model and theory is the study result. However according to (Malhotra *et al.*, 2012; and Saunders *et al.*, 2016) both research approaches can be combined in the same study.

Subject to the description this study combines both approaches with the following justifications for this decision: First, this research approach lines up with the post-positivism philosophical position that has been chosen in the prior section. Second, this approach will give a better understanding of research problems from more than one perspective to assure that the research is strong (El-Gohary, 2009). Thus, the two stages for implementing this study are as follows: i) an inductive approach (Also known as exploratory stage) will be conducted to expose the critical factors impacting distribution firms to adopt E-Marketing, hypotheses, and related relationships. A broad review of the extant literature will be conducted, following by in depth interview with distribution firms’ experts, managers/owner, and top managers; ii) A deduction approach will examine the relationship between concepts and factors that mainly collected from current theories of new technology and interviews with professionals in the first stage. This research also conducts explanatory phase, as it contains a description behind a specific instance to find out casual relationships between main factors by deploying methods such as: attitude and statistical surveys, case studies, historical investigation, and observations (Saunders *et al.*, 2016). Table 5.3 illustrates the current research phases related to research approaches and philosophies.

**Table 6** Research Methodologies and Phases Regarding to the Research Approaches and Philosophies

| Methodological Approach/ Research Phases | Processes and Objectives  |
|--|---|
| <i>Exploratory Phase</i>                 |   |
| Phenomenon Investigation                 | <p>i) Achieving to an in-depth understanding of the topic under the investigation through a comprehensive investigation on the extant literature in more than one discipline in the main scope of the research, give understanding of previous studies and determine the literature gaps.</p> <p>ii) Achieving to an in-depth interpretive and inductive research approaches for understanding research theories through the qualitative research methodology.</p> <p>iii) Identifying the primary research hypothesis with respects to the phenomenon under investigation.</p> |
| Framework Constructing                   | <p>iv) Identifying the study hypotheses along with inter-relationships between these constructs.</p> <p>v) Constructing and building the theoretic research framework.</p>  |
| <i>Research Framework Testing Phase</i>  |   |
| Framework Testing                        | <p>vi) Development of data collection instrument.</p> <p>vii) Designing the experimental survey questionnaire.</p> <p>viii) Sample designing and establishing collection of primary data via a survey questionnaire.</p> <p>ix) Providing a positivist understanding of the phenomenon via empirically testing the research theoretical framework.</p>  |
| Data Analysis                            | <p>x) Analysis of the collected data through quantitative study tools.</p> <p>xi) Validation of research results and providing the conclusion and recommendations.</p> <p>xii) Finding discussions and providing study conclusions</p> <p>xiii) Providing the limitations of the study.</p>   |

Source: Adapted from El-Gohary (2009)

### 5.3 Identifying the Most Applicable Research Methodology and Methods

Although philosophical views and approaches are playing main role in guiding the researcher toward consideration, for adopting a suitable research methodology to answer research questions and objectives, further consideration of other methodologies used in prior studies within the same discipline, can strengthen final method that would be adopted by researcher (El-Gohary, 2009). Therefore, the necessity to broadly review previous research approaches,

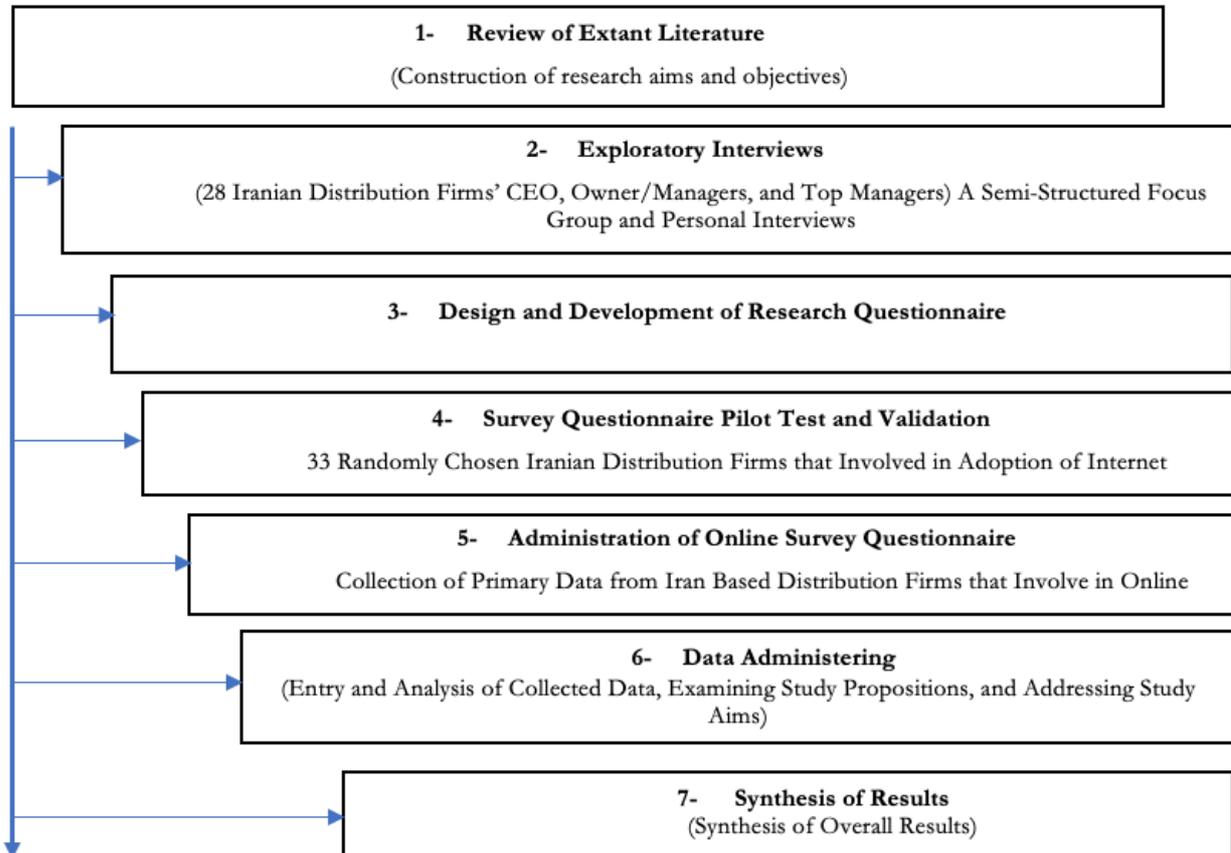
designs and methods employed in previous study within the field of E-Marketing adoption and distribution firms. Based on the extant review of the literature conducted to evaluate research methodology deployed in prior studies in the study area, it was found that there are limited studies regarding scholars conducted through the triangulation methodology, particularly in Iran context from 1993-2021 (see appendix 3). This research to address the objectives of the study, deployed *the triangulation approach*, initiated from an in-depth review of the extant literature by systematically commencing from prior studies with the field, Consequently, to purify the findings from the review of the extant literature, the researcher conducted in-depth semi-structured interviews. This study has developed the conceptual framework and hypotheses by relying on the findings from the exploratory interviews. For testing the hypothesis, this research has developed research measures (see appendix 4) for developing the survey questionnaire. All the measures used within the research were then tested and purified by assessing their reliability and validity prior to any future data analysis to make sure that all the measures used within the research is sufficiently and significantly reflecting the underlying variables that it is attempting to measure. This will not only provide support for triangulation of the research results but will also provide a more significantly meaningful explanation of the phenomena that the research is investigating. This study provides a methodological contribution to the field through employing an empirical and multi-disciplinary approach to E-Marketing research. This approach was chosen because it incorporates the concept of triangulation by combining focus group, in depth interviews and small- and large-scale survey questionnaires. Moreover, the proposed framework, as well as the different relationships within it, which was generated from the review of the literature and the outcomes of the exploratory studies, was tested, and validated by rigorous quantitative analysis (e.g., multiple regression analysis, simple regression analysis, Chi square, one sample T-test and path analysis).

### **5.3.1 Research Questions**

Majority of this current study questions (Chapter 7- Section 7.2) relate to the ‘what’ and ‘how’ question. Thus, a suitable research methodology and data collection technique could be helpful to eliminate the aims and objectives of the study. The research ‘what’ questions can be answered by conducting survey questionnaire method, whilst the ‘why’ and ‘how’ questions can be answered by conducting in-depth interviews and observations that could give in-depth knowledge and information to the researcher (El-Gohary, 2009).

### **5.3.2 The Research Methodology and Methods of this Current Study**

Taking into account of the preliminary conceptual framework (see figure 4.1), the post-positivism approach, and the literature review outcomes on the methodology deployed in prior researches and the analysis of appropriate research paradigm (see appendix 3), this current research synthesises both qualitative and quantitative methodology. The qualitative research method could answer the research questions of 'why' and 'how' some variables from prior researches influence Iranian distribution firms' E-Marketing adoption whilst some other variables are not. Likewise, the quantitative method is required to answer the research questions of 'what' are the relationship between factor of distribution firms' E-Marketing adoption and the adoption of E-Marketing by Iranian distribution firms and the impacts of E-Marketing adoption on distribution firms' current and future marketing performance (financial and non-financial). To be more precise, the triangulation method comprising data, approaches and methodology triangulation are used in this research to answer the research questions. Research data was triangulated from both secondary and primary resources involving: i) extant review of literature from articles of prior scholars, reports and websites; ii) in-depth interviews; and iii) survey questionnaires. Moreover, triangulation methods were used with the deployment of the in-depth interviews with industry experts and survey questionnaires. The research method is summarised in Figure 5.1.



**Figure 5:1:** The Research Approach. **Source:** The Researcher

### 5.3.3 Standpoints for Adoption of Triangulation Methodology in this Study

This research applies a triangulation research methodology to answer the research questions and to achieve and meet the research objectives. Triangulation methodology as stated in section 5.2.2 of chapter five, means the research uses both qualitative and quantitative methods together. This research technique is in line with a recommendation by Edwards and Holt (2010) who stated that methodological triangulation is where more than one technique of data collection and analysis is used (a combination of qualitative and quantitative data sources). This research finds triangulation strategy, as an appropriate approach due to several justifications as follow:

First, this study discusses that each method individually has its specific advantages as well as disadvantages. Patton (1990) discusses that employing an individual method is exposed to have more errors related to that method (cited in Serra, Psarra, and O'Brien, 2018). Therefore, by mixing these two methods the researcher can overcome each techniques' weaknesses. Whilst completing each techniques' strengths on the other.

Second, mixing both research methods can be very influential to increase perceptions and better outcomes (Smyth, Fellows, Liu, and Tijhuis, 2016). The adoption of several research methods in single study would enhance greater validity and reliability of the results and conclusion. El-Gohary (2009) recommends the deployment of triangulation method could eliminate bias that is frequently linked with a single research method. Therefore, an academic discussion can be strengthened throughout the deployment of triangulation approach.

Third, this research has established a limited number of prior scholars in E-Marketing and new technology adoption research context, specifically within the determinants of E-Marketing adoption of distribution industry research vein. Thus, this study tries to fulfil the knowledge gap by using the triangulation research methodology.

#### **5.3.4 Standpoints of Semi-Structured Interviews and Survey Questionnaires as Research Methods used in this Study**

This study employed in-depth semi-structured interviews to investigate and purify determinants of E-Marketing adoption found from the review of extant literature. Consequently, the purified factors are confirmed through survey questionnaire analysis. The adoption of these two techniques of data collection for this research is based on the following justifications:

This study uses semi-structured interviews since the method is suitable to investigate and purify the preliminary factors collected from the review of extant literature. The technique is useful to realise what is happening and provide useful information about distribution firms' E-Marketing in Iran context. Moreover, as this method can provide robust information throughout an inductive research approach, it allows scholars to deal with a great number of open-ended research questions to be answered by participants through this technique (Saunders *et al.*, 2016). Therefore, the researcher be able to have sufficient period of time to ask various questions about the forty-three variables that might contribute to distribution firm E-Marketing adoption and the impact on marketing performance found by reviewing the extant literature that in turn lead the researcher to understand E-Marketing adoption and implementation by Iranian distribution firms. It is found in the literature that managers/owners are more likely to accept to be interviewed rather than to fill and complete the survey questionnaire, particularly when dealing with a large amount of questions (Saunders *et al.*, 2016). Furthermore, they

(ibid) recommend that, there is a potential of research participants might be unwilling to answer some of the questions in the survey questionnaires to a person they have never known. Based on these stances, this current study deployed the semi-structured interviews for data collection and purify the variables in the exploratory stage.

In regards of the deployment of survey questionnaire, this study uses survey questionnaire for validating the findings and results from exploratory interviews. The survey questionnaire is appropriate for both descriptive and explanatory stage of research due to various reasons. With descriptive and explanatory stage, the study problems and factors to be measured are designed and well interpreted (Ghauri and Gronhaug, 2005). Thus, the reason for conducting survey questionnaire is to test and describe the relationships between factors in specific, “cause and outcome” relationships (Saunders *et al.*, 2016, P: 440). Moreover, there is a monetary implication of data collection and entry that usually cost not as much of the focus group and face-to-face interviews or other methods of data collection (Saunders *et al.*, 2016, p.440; Naresh, 2010, p.120). Mostly, this method can minimise the travelling cost from United Kingdom to Iran for data collection. Moreover, the method is also suitable to communicate with the research participants who may not be accessible (Naresh, 2010, p.117). In regard of this study, managers/owners of research distribution firms are not available all the time due to their position. Therefore, getting access to the participants for face-to-face data collection is challenging and might take longer than what research plans. Hence, survey questionnaire’s advantage is its flexibility for research participants in regard of their time allocation at their convenience to fill and answer the survey questionnaire.

## **5.4 The Research Data**

### **5.4.1 Secondary Data**

*“Secondary data refer to information that have already collected by another researcher for purpose other than the current problem for conducting the current research”.*

*(Naresh, David, and Peter, 2012, P: 122)*

In this study, secondary data was gathered via the online resources, published materials, and official and authorised reports, and the distribution firms’ website on the internet. The collected secondary data was reviewed to understand the Iranian distribution firms’ circumstances, their geographic dispersion, Iran’s economic statues and their rules and policies on supporting distribution firms’ growth online and implementation of E-Marketing tools. Moreover, this

study has gathered information about influencing factors for distribution firms' adoption of E-Marketing through reviewing the extant literature that was required over the online and published materials.

#### **5.4.2 Primary Data**

*“Primary data refer to information that found and originated as a first-hand by a researcher for a particular purpose of addressing the current problem at hand, on the variables of interest”.*

*(Naresh, David, and Peter, 2012, p. 115)*

Primary data require to be collected from individuals via techniques such as survey questionnaire, in-depth interview, and observation (Saunders *et al.*, 2016). In this study, primary data is gathered through in-depth semi-structured interviews in the exploratory stage study. The semi-structured interviews were conducted on 28 experts including Iranian distribution firms' CEO and managers/owners that have already implemented online marketing techniques, and top managers who were involved in adoption process and activities with good IT knowledge. Moreover, the collected primary data through survey questionnaire were from the Iranian distribution firms that have already implemented E-Marketing techniques.

### **5.5 Data Collection Processes**

This research recognised both secondary and primary data collection techniques to understand the E-Marketing by Iranian distribution firms. Therefore, following a correct process of data collection particularly regarding primary data collection is essential. Part of the primary data collection is related to the research sample design. The procedure for designing the study sample will be discussed in the following sections.

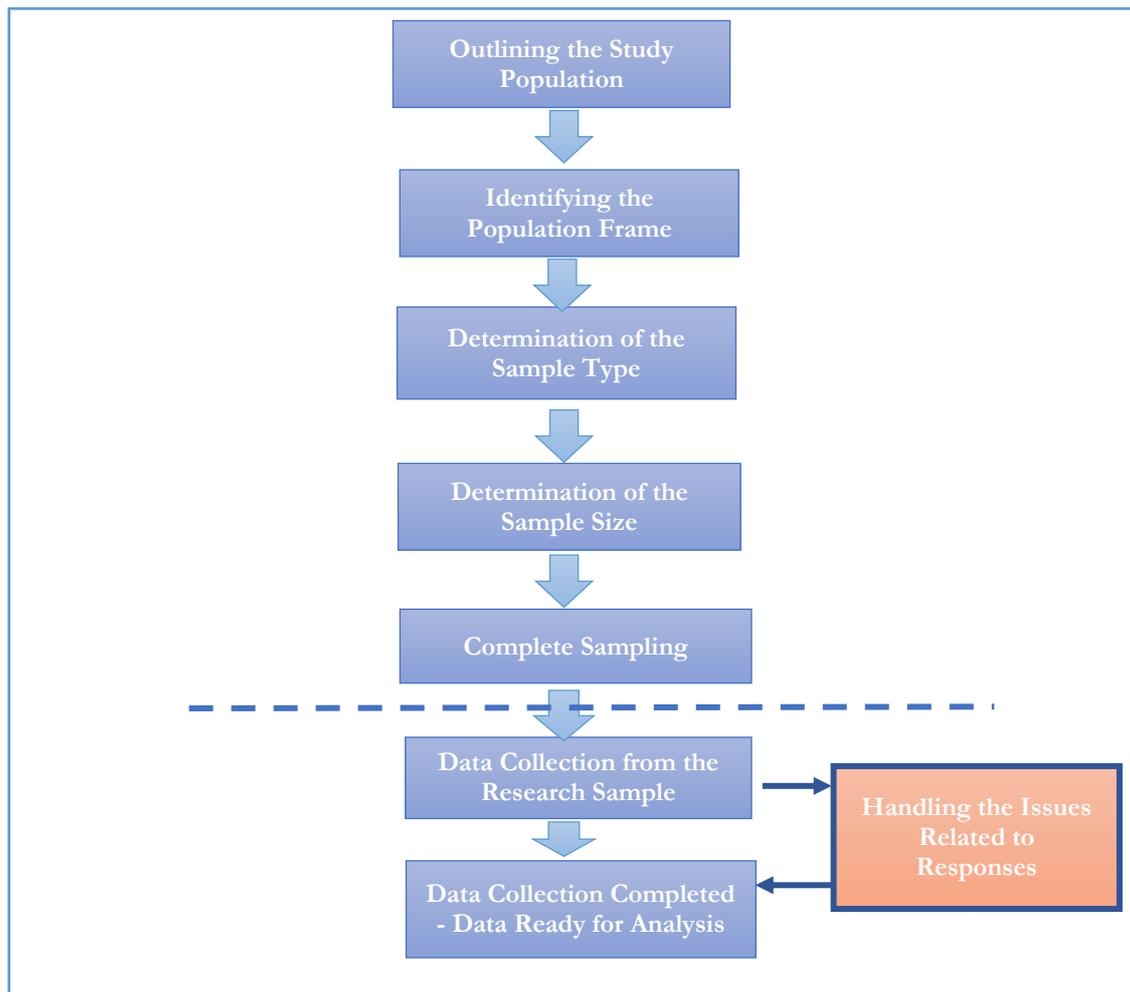
#### **5.5.1 Sample Design**

As this study's aim is to understand E-Marketing adoption and implementation by Iranian distribution firms, it is vital to identify scope of the research's sample. Research sample according to Ghauri and Gronhaug (2010, p. 108) is consideration of the research population and research frame, the location of the research samples and their characteristics (e.g., age, size, industrial sector, revenue, and income, etc.), sample size, and finally unit of analysis. It is difficult to conduct survey questionnaire of the total population of distribution firms that have implemented E-Marketing in Iran. Subsequently, a sampling method of survey questionnaire is essential. The simple idea of using sampling is that by choosing some of the basics in a population, the researcher might achieve the total population (Cooper and Schindler, 2008, P: 376). A research population component is the item or individual or participant of the measurement which is also called unit of analysis. The reason for deploying study sample is because the examiner can attain results with lesser costs, more accuracy in the outcomes,

greater speed in data collection process, and accessibility of research population elements (Bryman,2016, P: 171). In the case of this study, deploying a sample can increase the process of data collection as the total research population is large in number that accounted of 2292 of distribution firms that have already implemented E-Marketing process throughout the entire Iran. Moreover, the employment of a study sample can diminish the cost of the survey questionnaire distribution, cost of communication, and travelling related to data collection. Various processes involved in designing the study samples. In designing the study sample, the research requires to answer the subsequent questions as recommended by Bryman (2016, P: 251) and Ghauri and Gronhaug (2010, P: 115).

1. What is the targeted study population?
2. What is the research sampling frame?
3. What is the sampling method?
4. What sample size is required?

Therefore, the design of research sample procedures in this research process is demonstrated in the following Figure 5.2.



**Figure 5.2:** Process for illustrating a Sample in this Study

**Source:** Adapted from El- Gohary (2009) and Ghauri and Gronhaug (2010, P: 115)

### **5.5.1.1 Sample Population and Sample Frame**

*“The aggregate of all the elements, sharing some common set of characteristics, which encompasses the universe for the aim of the research problem” (Naresh, 2010, p. 370). In the other word, “The universe of units from which a sample is to be selected (Bryman, 2016, p.694). With the selection of good sample, the researcher can generalise the degree of certainty to the entire research population (Which depends on the sample size and the representative degree) (Vogt, 2007, cited in Abou-Shoul, 2012). Within this study, research population refers to the number of Iranian distribution firms that are currently involved in implementation and adoption of E-Marketing in their business activities and have their own website. Although research frame is where the academic scholar allows eliminating participants who do not meet the study standards for inclusion (Bryman, 2016, p.169). To define the research population, this research has mainly identified various conditions for the distribution firms that allow them to be included in the research population. These conditions are demonstrated as the following characteristics:*

1. The firm must be an organisation in distribution industry.
2. The company should have an Iranian Ownership and be based in Iran.
3. The distribution firm can be involved in any types of distribution.
4. The company should have involved in using E-Marketing to conduct its marketing activities and owns a website.

To entail information about the firms that meet the mentioned requirements, various Iranian distribution firms and agencies were contacted. The organisations include the Iranian distribution industry association, National Distribution Association of Iran (SDPMS), Association of Iranian Distribution Companies (APIR), and Department of statistics Iran. Unfortunately, there was no database or industry directory that could provide complete data about distribution firms. Majority of the accessible records or directories provide only overall information about the registered firms in it, but it does not provide any evidence about the adoption of E-Marketing by these firms. Conversely. As the research intended to gain responses from distribution firms in entire country so that the generalisation of the results could be established, the research population frame was produced from some databases and trading directories through searchi ng distribution firms that are based in Iran and can fulfil the required

requisite to be considered as distribution firms. The additional resources that were deployed to create the research population frame are the followings: E– Business Handbook, Tehran Business Directory, Internet Business Handbook, Iran Business Directory, Iranyell Business Directory, Mapna Edit, Iran connected, Magiran, Iran Adtech, and Irandoc. These databases include firms' name, address, telephone number, e-mail address, website address, location, and business type.

These bases were used to create the study population frame since:

- 1- They contain comprehensive data on the distribution firms registered in it.
- 2- They comprise of information about large numbers of distribution firms (e.g., Magiran database has full monetary and accounting information for more than 2 million firms registered in the Iran).
- 3- They provide the ability to assess the registered firms assure that it can fulfil the desirable requirements to be considered as the research distribution firm.
- 4- They are very public databanks and business directories amongst business owners (based on the outcomes of the study pilot test in Iran).

Thus, this research depends on the databases previously mentioned and business directories, a research population frame was created comprising full sub-industry classification data for 2472 distribution firms within Iran. This data entails the distribution company name, scope, size, sector, and web address. These 2472 distribution firms achieved the characteristics to be contained in the study population frame. To be assure of whether these firms met the forth characteristic (deploying E-Marketing to conduct marketing activities) and to approve that they really met the other three criteria, each firm's web address of the generated firms was visited individually by the researcher (Totaling 2472) to be sure if these companies are distribution based in Iran, undertaking distribution business, and deploys E-Marketing to conduct its marketing activities and to complete if there is any missing information about these distribution firms. This skimming procedure was conducted for three months over the period from 20/03/2017- 20/05/2017. Based on this investigation and browsing, 180 distribution firms were excluded from the study population frame for the following reasons:

- 1- Some of the firms had web address but they were terminated and was not working any more.
- 2- Some distribution firms had more than one web address in the databases and records and as a consequence of that added up more than one time.

- 3- Some firms were classified by the databases as distribution firm, however in the reality they were the manufacture which directly distributed the products to the end-customers, as this study was looking for the distribution firms that are essentially a mediator between the manufactures/suppliers and the customers/retailors.

Thus, the 180 organisations were excluded which resulting 2,292 distribution firms remain in the sample frame. Out of 2292 sample frames, this research has found the distribution of research population by the sector was mainly contributed by the Hygienic-groceries distribution sector which accounted for 42.28% (963 distribution firms) followed by Hygienic distribution sector and groceries distribution sector accounted for 18.4% (423 distribution firms) and 13.7% (315 distribution firms) respectively. Nevertheless, Electronics and Home Appliances, Pharmaceutical and medical and Cosmetics contributed a slightly lower amount of 5.1%, 8.8% and 9.7% of the total amount of research population respectively (591 distribution firms). The mix response of participants from different distribution sector and different cities, enables this study for the generalisation of findings. Moreover, this research has found that the distribution of the firms scatters through entire cities in Iran, that in fact, enables this study in generating generalisable study findings. Table 5.4 shows the distribution of Iranian distribution firms that implemented E-Marketing in the sample frame.

**Table 7** Distribution of Research Population According to Location

| N  | City                       | Number of Distribution Firms | Percentage (%) |
|----|----------------------------|------------------------------|----------------|
| 1  | Tehran                     | 195                          | 8.5%           |
| 2  | East Azerbaijan            | 102                          | 4.9%           |
| 3  | West Azerbaijan            | 98                           | 4.2%           |
| 4  | Isfahan                    | 186                          | 8.1%           |
| 5  | Alborz                     | 52                           | 2.2%           |
| 6  | Ardabil                    | 36                           | 1.5%           |
| 7  | Bushehr                    | 46                           | 2.0%           |
| 8  | Chaharmahal and Bakhtiari  | 61                           | 2.6%           |
| 9  | Fars                       | 148                          | 6.4%           |
| 10 | Gilan                      | 84                           | 3.6%           |
| 11 | Golestan                   | 49                           | 2.1%           |
| 12 | Hamadan                    | 31                           | 1.3%           |
| 13 | Hormozgan                  | 61                           | 2.6%           |
| 14 | Ilam                       | 78                           | 3.4%           |
| 15 | Kerman                     | 98                           | 4.7%           |
| 16 | Kermanshah                 | 69                           | 3.0%           |
| 17 | Khuzestan                  | 97                           | 4.6%           |
| 18 | Kohgiluyeh and Boyer-Ahmad | 47                           | 2.0%           |
| 19 | Kurdistan                  | 52                           | 2.2%           |
| 20 | Lorestan                   | 47                           | 2.0%           |
| 21 | Markazi                    | 36                           | 1.5%           |
| 22 | Mazandaran                 | 127                          | 5.5%           |
| 23 | North Khorasan             | 74                           | 3.2%           |
| 24 | Qazvin                     | 39                           | 1.7%           |
| 25 | Qom                        | 31                           | 1.3%           |
| 26 | Razavi Khorasan            | 127                          | 5.5%           |
| 27 | Semnan                     | 53                           | 2.3%           |
| 28 | Sistan and Baluchestan     | 27                           | 1.1%           |
| 29 | South Khorasan             | 29                           | 1.2%           |
| 30 | Yazd                       | 65                           | 2.8%           |
| 31 | Zanjan                     | 47                           | 2.0%           |
|    | <b>Total</b>               | <b>2292</b>                  | <b>100%</b>    |

**Sources:** Adapted from National Distribution Association of Iran (SDPMS) (2019) and Association of Iranian Distribution Companies (APIR) (2019)

Table 5.5 shows that the distribution of study population is compared to the distribution of the entire population of Iranian distribution firms. This research found that there is a similar outline of location distribution in both study population of Iranian distribution firms that implemented E-Marketing (Refer to Table 5.4) and the total population of Iranian distribution firms. Most of the Iranian distribution firms established in six main cities of Iran including Tehran as the capital of Iran 8.5% (195 Distribution Firms), Isfahan 8.1% (186 Distribution Firms), Fars 6.4% (148 Distribution Firms), Mazandaran and Razavi Khorasan 5.5% (127 Distribution Firms), and East-Azerbaijan 4.9% (102 Distribution Firms). Moreover, the differences between the research population and the implemented distribution firms' population according to location is relatively a minimal percentage. Therefore, it assumes that the distribution of study population can evidently represent the Iranian distribution firms' population. Hence, this study will provide reliable outcomes, which in fact, generates generalisable study findings of Iranian distribution firms that implemented and integrated E-Marketing with their marketing activities.

### 5.5.1.2 Sample Type

Research sample in the study refers to a segment or representative of the targeted population that is deployed for research (Ghauri and Gronhaug, 2010, p. 147). The employment of research sample in a study is due to various reasons such as failure of researcher to study the whole population, limited budget, and time (Saunders *et al.*, 2016, p.276). On the other hand, there are various processes for determination of study sample. Majority of the scholars' research methods in business, management and social sciences research techniques divide research sampling processes into two extensive categories namely, i) Probability/representative sampling; and ii) non-probability sampling (Bryman,2016, p.176; Naresh,2010, p.407; and Saunders *e al.*,2016, p.275).

Bryman and Bell (2015, p.176) define the probability sampling as a sample which has been selected via random selection so that each unit in the research population has the same chance for being selected. The result of this sample selection technique is generally expected to be a representative sample of the study population. The aim of using this sampling method is to reduce the sampling error which defined by Bryman and Bell (2015, p.187) as the dissimilarity between a sample and the population from which it is chosen, although a probability sample has been chosen. Probability sampling normally linked with survey questionnaire and experiment study methods (Saunders *et al.*, 2016, p.276).

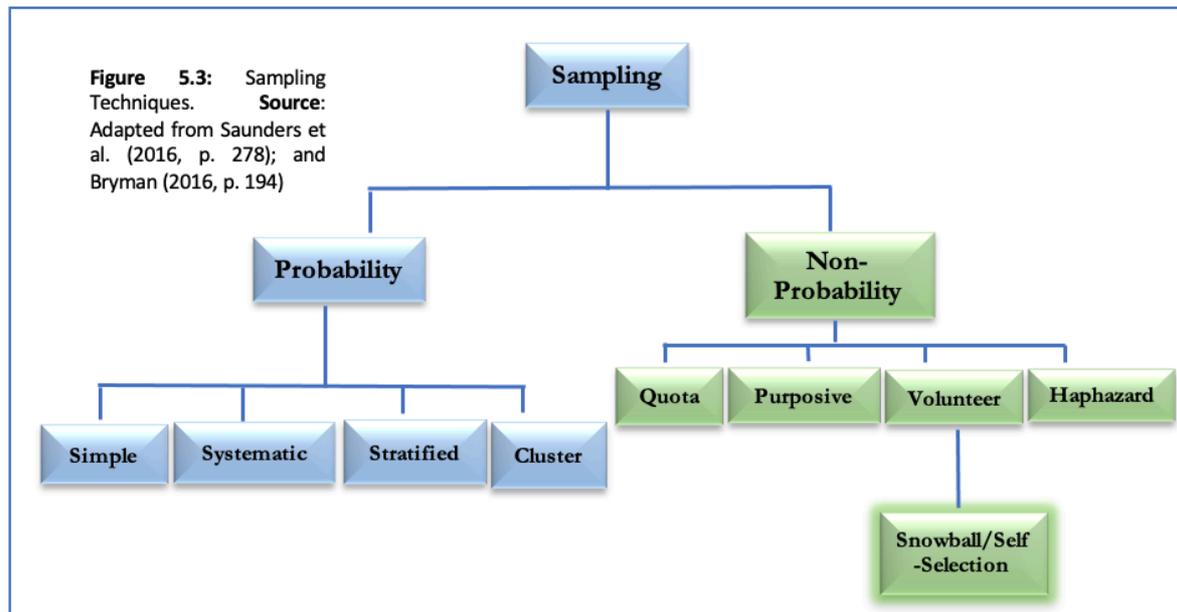
There are number of probability sampling methods namely: cluster sampling, stratified sampling, systematic sampling, and simple random sampling (Bryman, 2016, p. 177; and Saunders *et al.*, p.277). While cluster sampling is a technique where the population is divided into equally limited subsections with a random selection of sample from the subgroups. Stratified sampling is a method where the population is divided equally exclusive into subgroups, and consequently, a random sampling from the stratified sub-groups is completed to be sure all part of the research population acquires a greater representation. However, the dissimilarity between cluster and random sampling is where the investigator tests all units in the chosen clusters (Bryman, 2016, p. 179). Conversely, simple random sampling is the simplest form of probability sampling where illustrated each unit of the sampling frame has the same chance of inclusion. Systematic sampling is explained as choosing a particular unit after the random selection initiate. For instance, if an organisation decides to measure the average of order size, it chooses a number between 1 to 20, if it chose number 16, consequently, the organisation select each 20 unit: 16,36,56 and so on (Bryman,2016, p. 178).

In contrast, Bryman and Bell (2015, p.187) and Ghauri and Gronhaug (2005, p. 148) defined the probability sampling as a sample which has not been selected by deploying a random selection technique. It assumes that some units within the population are more likely to be chosen than the others. Saunders *et al.* (2016) describe the non-probability sampling is where the possibility of each unit being chosen from the population is not known and it is difficult to answer research questions or to achieve research aims that need the researcher to make statistical interpretations of the whole population. Saunders (2016, p. 278) recommend the non-probability sampling can be categorised into four types namely, volunteer sampling (snowball, self-selection), purposive sampling, quota sampling, and convenience (random) sampling. Convenience sampling is a probabilistic sampling where it forms the two groups that sub-divide sampling techniques. To allow the chance for any individual to be chose from the population, research participants are chosen randomly in a probability sample.

On the other hand, when the researcher selects the sample population in convenience sampling, this should be on non-probability method (Bryman and Bell, 2015). Conversely, in snowball and quota sampling availability of the research sample and the judgement of the researcher form the basis samplings. To find different types or groups with relative participants, quota sampling is deployed. On the other side, when original research participants refer the survey to other participants, this forms snowball sampling. Purposive (Judgmental) sampling technique is a method when a researcher selects specific participants with the population to deploy for a specific research project. This method is focusing on participants with specific characteristics who would have better contribution with the relevant research project (Saunders *et al.*, 2016).

Although there are restrictions in generalisation of the collected data to the whole population, as well as making interpretations, the non-probability sampling is low-cost, targeted, expedient and fast in a large sample population (Bryman and Bell, 2015). Figure 5.3 illustrates a guideline for a researcher in conducting sampling method in a research. Choosing the appropriate sampling method is influenced by the nature of the research, accessibility of the researcher to research samples, time horizon, and financial resources (Hair *et al.*, 2006). This study purpose to generalise the findings resulted from the samples that are the representative of the population. Probability sampling particularly “simple random sampling” is deployed as this method: is more accurate for the generalisation, could give the whole units in the research population the same chance for being chosen, provide the minimum sampling error as the adequate method is dignified by the size of its sampling errors (Saunders *et al.*, 2016, p.281),

and finally, this study has time and budget restrictions (Hair *et al.*, 2006; and Sharma, 2008). This method allows the researcher to execute a statistical interpretation on the study population of this research that related to firms' E-Marketing adoption in Iran context and across distribution industry.



### 5.5.1.3 Sample size

It is difficult for this research to exam on the research frame of 2292 distribution firms that implemented E-Marketing applications due to financial and time restrictions. On the other hand, Probability random sampling is used to conclude the study population. This research employed two different techniques of calculation for identifying the minimum required sample size: i) to identify based on research sample population (De Vaus, 2014); and ii) based on the number of latent factors and measures in SEM (Structural Equation Modelling) (Awang, 2014, p.30; and Hair Jr *et al.*, 2017).

The selection of sample size according to Saunders *et al.* (2007) cited in Abou-Shouk (2012) depends on various factors such as level of confidence (certainty), margin of error needed, types of analysis needed, and the total population size. Similarly, De Vaus (2014) recommends that sample size calculation depends on the confidentially level of researcher (The accepted confidentially level is at 95% in Business and Social Science studies). Second, the estimation of sample size base on the percentage of responses the researcher to have some specific aspects. In regard of the margin of error, in terms of the accuracy of the estimations the researcher calculated about the research population, majority of studies in business and social science deploys error margin of plus or minus between 3%-5% of the actual value.

In this case, Pike (2007) recommends that the researcher need to adjust the size of samples upwards to be certain that the non-respondents of sample frame do not influence the representativeness of the samples. The number of responses in this study is the number of Iranian distribution firms that involved and implemented online marketing with their marketing activities. This proportion in the current study is determined from 30 cases of the pilot samples as suggested by Saunders *et al.* (2016, p. 705). From the pilot examination, this research found that 28 out of 30 research participants (93%) met the study requirement, while other 2 research participants (7%) were fulfilled the research requirements. Thus, 93% is considered to be fitted to this particular category. Having these data, the research calculated the minimum required sample size as recommended by De Vaus (2014) by deploying the following formula:

$$n = p\% \times q\% \times \left(\frac{z}{e\%}\right)^2$$

Where:

$n$  is the minimum required sample size (See Table 5.7).

$p\%$  is the percentage that belongs to a specific category.

$q\%$  is the percentage that does not belong to the particular category.

$z$  refers to  $z$  value describing the required level of confidence (See Table 5.6); and

$e\%$  refers to the required margin of error (5%).

As the total of the Iranian distribution firms that implemented E-Marketing applications with their marketing activities is 2292. This research calculated the minimum required sample size according to the following calculation steps:

$$\begin{aligned} n &= 93 \times 7 \times \left(\frac{1.96}{5\%}\right)^2 \\ &= 651 \times (0.392)^2 \\ &= 651 \times 0.154 \\ &= 100 \end{aligned}$$

First, based on the suggested calculation of the minimum required sample size by De Vaus (2014), this research requires a minimum sample size of 100. However, this assumes that the researcher reaches to a response proportion of 100%. The  $Z$  value deployed in the above calculation was suggested by De Vaus (2014) cited in Saunders *et al.*, (2016, p.704) as shown in Table 5.5.

**Table 8** Confident Levels and Related Z Values

| Confidence Level    | Z Value |
|---------------------|---------|
| 90% Confidentiality | 1.65    |

|                     |      |
|---------------------|------|
|                     |      |
| 95% Confidentiality | 1.96 |
| 99% Confidentiality | 2.57 |

Sources: Adjusted from De Vaus (2014), Cited in Saunders *et al.* (2016, p. 704)

Second, this research uses the second technique of calculating research sample suggested by Awang (2014) and Hair *et al.* (2014). This technique is estimated based on SEM (Structural Equation Modelling) that relies on the number of latent variables and items as crucial features in defining sample size. Table 5.6 demonstrates the required minimum sample size recommended in SEM analysis.

**Table 5.6:** Minimum Required Sample Size in this Research According to SEM

| Characteristics of Model<br>(Number of Latent Variables and Items)  | Minimum Required Sample Size |
|---|------------------------------|
| Five or less latent constructs measured in a research, where each latent construct has more than three items. | <b>100 Samples</b>           |
| Seven or less latent constructs in a research, where each construct has more than three items.                | <b>150 Samples</b>           |
| Seven or less latent constructs measured in a research, where some constructs have less than three items.     | <b>300 Samples</b>           |
| More than seven latent constructs measured in a research, where some constructs have less than three items.   | <b>500 Samples</b>           |

Source: Adjusted from Awang (2014, p. 30)

#### 5.5.1.4 Unit of Analysis

The sampling unit described by Dodge (2003, p.370); and Bryman (2016, p. 80) as the preliminary unit of measurement in the study. Similarly, De Vaus (2014) describes the sampling unit as the unit from which the data is gained. It indicates the accuracy degree of the gathered data throughout the subsequent data examination phase (Sekaran, 2003, p.134). Sampling unit can be related to associations, groups, individuals, organisations, societies, and culture (Sekaran, 2003, p. 135). Thus, identifying the sampling unit is crucial, since the information will be collected from identified unit to be able to assign the research problem (Davis, 2004). As this study aims to understand, influencing factors of E-Marketing adoption by Iranian distribution firms; and investigates the impact of E-Marketing adoption on Iranian distribution firms' marketing performance, the sampling unit of the research would be the organisation/firm. Thus, the data is attained from Iranian distribution firms' managers/owners, CEOs, top Managers who are the decision makers for ICT adoption and can provide insights

on E-Marketing adoption of each firm. These research participants are suitable to provide data as they engage directly in plan development, decision making, implementation, and observing of the online marketing activities of the firms.

## **5.6 Semi-Structured Interviews (One to One and Focus Group)**

The adoption of semi-structured interviews is influenced by the aim of the study. Semi-structured interviews were developed by focusing on the aims and objectives of the current research and were adopted to purify the 43 variables that have been investigated through reviewing the extant literature. For the exploratory phase of the study, it is likely that the researcher will adopt semi-structured interviews (Saunders *et al.*, 2016, p. 390). Other scholars support the deployment of mix-method research approach that initiate with the qualitative method, which is also known as exploratory sequential design (Creswell and Clark, 2011; cited in Bryman, 2016, p.640). According to Bryman (2016, p. 639), the exploratory design comprises of the qualitative data collection prior to the quantitative data collection. The purpose of conducting semi-structured interviews in this research is to investigate and purify factors found in the extant literature. In addition, the outcome of the explorations will be deployed to produce and develop hypotheses and the theoretical framework that could be further examined by adopting quantitative survey questionnaire. Furthermore, the aim of conducting semi-structured interviews is to follow up results from qualitative phase within the quantitative method. Which in turn, would generate generalisable outcomes of the quantitative results to be measured (Bryman and Bell, 2015). By deploying qualitative semi-structured interviews, multiple stages were conducted comprising sampling, the process of interviews, and the analysis of data.

This study will use both focus group and one to one interview to purify the 43 factors investigated from the literature and to determine the important factors among the investigated factors. Focus groups are indeed the best way to exchange viewpoints and discuss disagreements between participants. These dynamics will not be captured in a face-to-face interview. In addition, focus groups is less expensive than one to one and the researcher will be able to capture data within a short period especially when the research's nature be the cross-sectional study with a limited period. This also will remove the costly part of the analysing process (i.e., transcriptions and coding). However, since speaking time of some participants may be considerably higher than others, this would make the other participants' contribution disproportionate. Also, due to the cultural differences and trust issues, when it comes to

interviews and gathering sensitive data in Iran, if all the interviews be focus group, then maybe in some questions, some participant may not feel comfortable to answer the question and avoid talking about the specific question in front of other managers. Thus, the researcher uses one to one interview as well since the one to one is less bias than with a focus group and have a higher potential for deeper insights of the context, although the interview time may take longer.

### 5.6.1 Sampling in Semi-Structured Interviews

*“Even though probability sampling technique could be deployed in qualitative study, yet it is not often employed in qualitative study since the limitations of ongoing observation and difficulty to map ‘the population’ from which a random sample may be acquired, that is, to make a sampling frame”* (Bryman, 2016, p. 408). As a substitute, scholars adopt the non-probability sampling method in majority of qualitative studies as the sample size is limited. There is a limited availability of guide in calculation of sample size in a qualitative research, and there are no regulations and guidelines in determining sample size for non-probability sampling technique (Saunders *et al.*, 2016, p. 298). According to various scholars’ experience (e.g., Saunders *et al.*, 2016), it is suggested that the least sample size vary from four to thirty-six for qualitative research. On the other hand, several scholars recommend the minimum accepted sample size range from three to five, and the maximum accepted sample size range from ten to fifteen in the qualitative study (e.g., Peery, 1998, p.795). Conversely, there is an overall standard for qualitative research that, sampling could be continual if the extent and depth of the information studied, is increasing and could be terminate whenever no more new data would be obtained. In other word, current researcher decided the non-probability sampling size by the conception of ‘Saturation’ or the idea at which no new data is detected from interviews (Guest *et al.*, 2006).

The adopted sampling method for semi-structured interviews in this current research is non-probability sampling, where a selection of 40 study participants were made through the website of the Iranian Distribution Industry Association. Several experienced and knowledgeable Iranian managers/owners, and top managers of distribution firms were chosen to be interviewed. By relying on the general policies and guides specified by Coper and Schindler (2003), 40 sample sizes were primarily targeted. However, data saturation was achieved after conducting 28 semi-structured focus group and face-to-face interviews. This number of interviews are separated from the 8 pilot interviews conducted via telephone calls with IT

managers of 8 distribution firms located in eight different cities of Iran including: Tehran, Tabriz, Esfahan, Mashhad, Yazd, Alborz, Fars and Kerman. In total, 28 interviews conducted in this research reached to the sample size recommended by number of scholars as stated earlier (e.g., Guest *et al.*, 2006). The data analysis process, details of semi-structured interviews, and results are discussed in chapter 6

Focus group interviews generally conducted with a specific purpose for addressing the gaps within the research field that supposed to fulfill by focus group interviews as well as is a method for collecting data from various individual groups. Each individual group has knowledge with their own perspective and when the collected information combines, as a result, it highlights the potential outcomes. This method is a commonly adopted research method in social science research which comprises of deploying in-depth group interviews in which individual participants are selected to signify a sample of a specific research population for exploring a particular context (Thomas *et al.*, 1995). The chosen research participants for focus group are based on a main standard of having a good knowledge within the subject field. In this research context, various scholars such as Burrows and Kendall (1997) and El-Gohary (2016) explain that this method of approaching in the selection of the participants of focus group is linked to the applicability, where the respondents are chosen based on their level of knowledge in the research area. The main characteristic of the groups within this approach is related to their dynamics (Thomas *et al.*, 1995), and their ability in generating primary data based on the synergy of the group collaboration (Green *et al.*, 2003). Therefore, a wide range of various data related to the context generates. Furthermore, according to Thomas *et al.* (1995) the range of data collected through focus group interaction is deeper and richer rather than one to one interview. This method is used for the aim of investigating the import factors related to E-Marketing adoption result from the literature.

## **5.7 Development of Questionnaire Survey**

Bryman (2016, p. 695) defines the questionnaire survey as “a collection of questions directed to research respondents. It is quantitative method and is used to investigate extensive social problems whereby the outcome of a sample could be generalised upon to mirror the society as an entire population”. Thus, the aim of deploying survey questionnaire is to collect data from the sampling unit (Iranian distribution firms that implemented E-Marketing with their marketing activities) that be able to simplify the research hypotheses testing. The survey questionnaire was developed to extract information about: the owner/managers characteristics

and attributes (i.e. IT knowledge, receptiveness toward change, their support and motivation for implementing E-Marketing , how ease is the use of new technology), the information that reflects to organisation's attributes (i.e. organisation's e-readiness and culture, availability of financial resources, level of formalisation and decentralisation, employees and managements' IT knowledge), the perception towards environmental characteristics reflecting E-Marketing adoption and implementation (i.e. external pressures from industry, competitors, customers/suppliers, business partner affiliation, national e-readiness, external IT support, support from governments in terms of rule and regulations and financially), also the information reflects the firms' technological characteristics (i.e. physical infrastructure sufficient accessibility to internet resources, costs, compatibility of the firm's infrastructure with the new technology tools, relative advantage of such technology for firm), E-Marketing implementation tools (level of E-Marketing adoption, tools of E-Marketing , percentage of sales and profit since implemented E-Marketing, the reasons for E-Marketing adoption), and marketing performance indicators (i.e. sales and profit growth, IT knowledge). Furthermore, important information about the profile of Iranian distribution firms were driven out (i.e., age, number of employees, years working within industry, location, years since implemented and involved E-Marketing).

The research developed questionnaire in four sections: Section one entails the background of participants and organisations, section two concerns on determinants of E-Marketing adoption (including environmental, organizational, individual, and technological characteristics), followed by section three that deals with firms' E-Marketing adoption to understand respondents' interests and reactions for undertaking online marketing business activities. Finally, section four focuses on the marketing performance of the distribution firms as the impact of E-Marketing adoption (comprising both financial and non-financial performance).

When designing the questionnaire, the researcher gave attention and focused on the simplicity of survey questionnaire. Hence, the developed questionnaire was short, understandable detailed, and comfortable for arguing to prevent any harm to respondents that in fact, can influence the procedure of filling the questionnaire. Furthermore, the researcher avoided to add questions that lead to "double meaning", so the respondents could answer the questions without any uncertainty. The questionnaire contains of three open-ended questions, yes and no grouping, ranking, scale, and measuring questions as well as questions where respondents need to tick the applicable answer according to their preferences.

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### **5.7.1 Research Measures**

The survey questionnaire was developed in scales and intermission in nature deploying “Five Point Likert Scale” and “Frequency Verbal Scales”. The utilisation of Five Likert Scales within the questionnaire was for its applicable interval scale that assesses behavioural variables (El-Gohary, 2009). Furthermore, Churchill (1979, p. 76) proves that, having multiple item measure is preferable than single-item measures in serving the aims of marketing research (Cited in El-Gohary, 2009). The deployed Likert scale in this research ranged from 1= Strongly Disagree to 5= Strongly Agree. The Five Point Likert Scale, widely been used in the research in E-Marketing adoption and marketing studies (Alroushan, 2014; Ifeonu, 2014; Al-Somali, 2011; Alsaif; 2013; Rahayu and Day, 2015; Abou-Shouk and Eraqi, 2015; Choshin and Ghaffari, 2017; and Anwar, Khan, and Khan, 2018). While the aim for using frequency, verbal scale is to understand the profile of research respondents and organisations' geographical distribution in this study, there were nine key constructs within this research. The research constructs of this study are Environmental characteristics, Individual characteristics, Organisational characteristics, Technological attributes, E-Marketing Adoption, Financial Performance, and Non-Financial Performance (E-Marketing Impact on Marketing Performance), E-Marketing

Tools, and E-Marketing Implementation Levels. All these constructs are latent variables that cannot be measured directly. However, as an alternative they can be measured by deploying multiple items that were developed and designed in the form of survey questionnaire.

This research has developed measures that explain factors extracted from theories of new technology theories namely: Model of PC Utilisation, Technological, Organisational and Environmental Framework (TOE), Diffusion of Innovation Theory, Resource-Based Theory, the Perceived E-Readiness Model, and Technology Acceptance Model, under categories of Environmental, Individual, Organisational, Technological Attributes, and Legal and Regulation factors. However, measures explaining E-Marketing Adoption, E-Marketing tools, E-Marketing Implementation Levels, and Financial and Non-Financial performance were adopted from measurements deployed by prior researchers (As discussed in Chapter one and Chapter seven). This research conducted various statistical tests such as Cronbach Alpha and Item-To-Total Correlation tests to check validity and reliability of all deployed measures. The results from these two tests were found higher than the normally accepted value (As discussed in Chapter 9- Section 9.2) recommended by Edgett (1994). The details in regard of the Cronbach Alpha and Item-To-Total Correlations tests are discussed in the next section 5.9. Appendix 4 demonstrates the study measures deployed in the research (See Appendix 4).

### **5.7.2 Measuring Validity and Reliability of the Survey Questionnaire**

In the research, it is essential to be sure of the accurateness and consistency of the used instruments, and the items that are supposed to be measured (Hair *et al.*, 2014). Even though, ‘validity’ and ‘reliability’ terms appear to be similar in terms of definition however, they both have different meanings in the scope of scientific study (Bryman, 2016, p.157). While the term, ‘reliability’ refers to consistency, ‘validity’ refers to the accuracy of the study instruments (Hair *et al.*, 2014). To exam the validity and reliability, the research’s instruments were taken in multiple steps to make sure that the deployed instruments, achieve to the expected value of measurements that in turn, increase the quality of the research’s findings. In the next section, the process of validity and reliability will be discussed.

#### Validity

The purpose of validity measurement is to make sure that a construct, measures the proposed concept (Hair Jr *et al.*, 2014; Bryman, 2016). According to Bryman (2016, p. 160) there are five classifications for validity namely: i) Convergent; ii) Face; iii) Construct; iv) Predictive;

and v) Concurrent. Face validity aims to provide an acceptable reflection of the contents with consideration of the concept in question (Saunders, Lewis, and Thornhill, 2009; and Hair Jr *et al.*, 2014). This validity is suitable for a researcher who presents a new measure in study (Bryman, 2016, p. 160). Face validity can be established by questioning from other individuals whether measure, look as if it achieved the concept that is on focus. To be more precise, the validation of research instruments can be established by questioning people who are expert and have experience within the research context. This validity method is the one that has been used majority of times in business studies (Hair JR *et al.*, 2014). Moreover, the other way of establishing face validity is to review the concepts carefully in the existing literature (Saunders *et al.*, 2009).

The other validity technique is concurrent validity, in which the researcher deploys a standard on which cases are known to vary, and that is applicable to the concept in the research question (Bryman, 2016, p. 160). For instance, if study aims to measure the level of job satisfactory of employees in a company, the standard or principle deployed for measuring validation would be absenteeism since, some of individuals are more frequently absent from work than other employees (Apart from absence through illness). In this case, the researcher, might measure the level of job satisfaction, are those employees that are less likely than those who are not contented to be absent from work.

On the other hand, Predictive validity refers to when the research deploys a future criterion gauge, rather than an existing and simultaneous principle as explained in concurrent validity (Bryman, 2016, p.160). For instance, the researcher rather than employing the current absenteeism prefer to deploy future absenteeism to measure the degree of job satisfaction.

Construct validity's purpose is to validate the research's instrument by deducting the hypotheses from a theory that is applicable to the research concept. In the other word, it refers to the level in which the constructs are simultaneous to measure the concept that supports the study. Therefore, the researcher can explore this hypothetical deduction by testing the relationship between the job satisfaction and job monotonous. This technique is also knowing as discriminant validity (Sekaran and Bougie, 2016).

Another validity technique is Convergent Validity is formed when the score acquired with two various instruments measuring the similar conception are highly simultaneous, whilst

Discriminant Validity is established when it is expected that two variables to be uncorrelated, and the score acquired by measuring the variables are found to be empirical (Sekaran and Bougie, 2016, p.165). The technique that is used majority of times in examining convergent validity is through factor analysis that can be established by deploying statistical methods such as: Barlett's test of sphericity that would be significant ( $p < 0.5$ ) for the factor analysis to be considered as suitable and Kaiser Meyer-Olkin's (KMO) to measure the appropriateness of sampling (Pallant, 2016).

In the case of this study, face validity was established in both methods. Firstly, majority of the measurements in this study were utilised from a broad review of extant literature. By reviewing the literature, both deductive and inductive approach was conducted. Inductive approach was conducted through exploratory interviews to validate the variables found in literature. Secondly, the researcher met the experts in the study context such as academicians in Marketing, Digital Marketing and Business and Management from Birmingham City University, Hull University, Coventry University, and University of Wolverhampton to validate the study measures. Subsequently, various measures comprising research questions in section two (Determinants of E-Marketing Adoption), section three (E-Marketing Adoption), and section four (Marketing Performance) required minor amendments to improve the accuracy, clarity, and make it ease and understandable of the proposed concept. Third, this research has also implemented Factor Analysis in Structural Equation Modelling by deploying AMOS (Analysis of Moment Structure) software (the outcomes of validity test are explained in Chapter 9- Section 9.2). Finally, this research conducted a pilot survey on 8 Iranian distribution firms' managers/owner to approve the instrument validity; and to conduct reliability test of the research instrument that in turn, will generate a practical survey questionnaire for this study.

### Reliability

Reliability refers to subjects regarding the constancy of measures. Thus, a survey questionnaire is considered reliable when achieved to consistent results for respondents' answers (Pallant, 2016). Moreover, Hair *et al.* (2014, p. 10) described reliability to "the degree to which the observed variable measures the "true" value and is "error-free" ...if the similar measure is repetitively inquired. For instance, more reliable measures demonstrate a better consistency than less reliable measures". There are three types of reliability as explained by Saunders *et al.* (2016): i) internal consistency; ii) test re-test; and iii) alternative form.

Test re-test reliability is attained by repeating measurement for the same participants at different periods of time (Hair *et al.*, 2014, p.125). Thus, the survey questionnaire needs to be provided and completed two times by the same research respondents. If the responses are similar, this shows that the test re-test reliability has been accomplished. However, this may make issues as in reality; it is difficult to convince the participants to respond the same questionnaire for the second time.

Alternative reliability is established through comparison of answers to different forms of the similar question (s) or groups. Where questions are involved this aim generally in longer survey questionnaire (Saunders *et al.*, 2016, p.460). However, this method similar to the test re-test reliability suffers the same issues as the respondents need to deal with recurrence, as well as a long questionnaire. Thus, measurement of the reliability can be established through internal consistency, which is the intention achieving to the measurement reliability via examining the correlation of participants of questions with each other within a smaller group in a survey questionnaire (Saunders *et al.*, 2016). This technique can be established through a statistical way known as Cronbach's alpha that ranges from 0 to 1. The results with score of 0.6 to 0.7 is considered as an acceptable score, followed by 0.8 to 0.9 is very good, and  $< 0.9$  is excellent (Hair *et al.*, 2014). In the case of this study, Cronbach alpha test was deployed to measure the reliability of all items used. The process and outcome of the reliability test by employing Cronbach Alpha is discussed in the next section 5.8 of preparation of data for analysis.

### **5.7.3 Getting Data Prepared for Analysis (Data Preparation and Purification of the Measures)**

Data preparation within this study has been conducted through four stages, namely data editing, data coding, data entry and final review.

The research has conducted data purification, entry and checking before establishing a reliability test. The research then made the data ready for analysis after both pilot study and the main data collection through survey questionnaire. The first stage of data purification was through editing the collected raw data from questionnaire (Sekaran and bougie, 2016). The aim of data editing process was to achieve the following goals: i) Identifying data errors and managing non-responses; ii) correcting the data errors where applicable; and iii) Making sure of the quality of the data achieved to the aimed norm (Bryman, 2016)

The second stage was data coding and classifying data (Sekaran and bougie,2016). In this process, all items were coded and classified to differentiate each other and to conform to the statistical device that was deployed to analyse the data that is called Statistical Package for Social Science (SPSS). In addition, the coding was used for main concepts and sub-concepts to simplify the process of detection of measures throughout the analysis process.

The third stage was data entry according to El-Gohary (2009). In this stage, the coded data were transferred into the SPSS software version 24 for analysis. The final stage was categorising the data in SPSS software to be assure that all items are reachable to be revised and values were given to each data. With the support of an assistant, in the final stage, the coded data was read while the researcher was entering them in the software. By completing this stage, the collected data is ready to be analysed. The process of reliability analysis via Cronbach Alpha will be discussed in the next section 5.10 of assessing the goodness of data.

After completing the data entry and reviewing processes, all the measures used within the research were then tested and purified by assessing their reliability and validity prior to any future data analysis. The main aim of this process is to make sure that all the measures used within the research is sufficiently and significantly reflecting the underlying variables that it is attempting to measure. This will not only provide support for triangulation of the research results but will also provide a more significantly meaningful explanation of the phenomena that the research is investigating. Purification of the measures within this study has been done depending on the internal consistency approach through a two stages process based on item-to-total correlation and coefficient alpha (Cronbach alpha).

#### **5.7.4 Measuring the Goodness of Data**

Examining the goodness of data that entered in SPSS software is required prior to establishing any statistical analysis after that. The data or measures' purification is deployed in the research aims to generate a reliable and valid data to be examined in any statistical examination such as testing the hypotheses (Sekaran, 2003). Thus, statistical methods i.e., Cronbach Alpha and Item-To-Total Correlation tests were used in this research to gauge the goodness of data, as well as the items' internal consistency (Pallant, 2016, p.101).

#### **5.7.4.1 Cronbach Alpha Test**

Cronbach Alpha test is involved with concept reliability and the measures' internal consistency deployed in this research (Bryman and Bell 2015, p.170; and Cortina, 1993). The aim is to be sure that all items that create a scale are simultaneous and 'hang together' (Pallant, 2016, p.99). Cronbach Alpha is established based on the evaluation of mean reliability coefficient for all potential ways of separating a set of measures into two halves (Haron, 2002; cited in El-Gohary, 2009). There is no agreement among academics on a standard value for Cronbach alpha (Cortina, 1993). For example, according to Pallant (2016 p.98), and Cortina (1993), an acceptable Cronbach alpha measurement is 0.7 and above. On the other hand, Magal *et al.* (1998) suggest the value of 0.6 and above is an acceptable value for Cronbach alpha. Furthermore, another scholar Nunnally and Bernstein (1994) suggest a value between 0.5 and 0.6 is an adequate value to be considered as reliable items, and the value of 0.6 and above is considered more consistent Cronbach alpha value.

In the case of this research, Cronbach Alpha with value of 0.6 and above is deployed which will lead the study to have more meaningful justification of the E-Marketing phenomena explored in this research and there is a new combination of variables in this research. Scholars such as Nunnally and Bernstein (1994) and Magal *et al.* (1998) support the deployment of the Cronbach alpha with the value of 0.6 and above as discussed earlier. Thus, items that achieve to a Cronbach alpha value less than 0.6 will be excluded from this study. However, this technique is sensitive to the number of measures in a scale. Getting the Cronbach Alpha value in constructs less than ten, (i.e., Cronbach Alpha with the value of 0.5) is common (Pallant, 2016, p. 98). As the majority of concepts in this study have less than ten items, it might be suitable to consider the mean of Item-to-Total Correlation if the research achieves to a low Cronbach alpha.

#### **5.7.4.2 Item-to-Total Correlation**

Item-to-Total correlation is a reliability test that determines any item concerns to the rest of items on a particular scale (Haron, 2002; cited in El-Gohary, 2009). Item-to-total correlation is creating a particular measurement that shares a common principal (Churchill, 1979). Moreover, Pallant (2016, p. 99) recommends to conferring the value of item-to-total correlation is essential in the case where the Cronbach Alpha value is too low (For example, lower than 0.6). However, Briggs and Cheek (1986) suggested a different recommendation about the item-to-total correlation value where an adequate item-to-total correlation need to be between 0.2 and

0.4. On the other hand, another scholar (Edgett, 1994) suggested that a satisfactory item-to-total correlation is 0.3 and above and should be kept for further analysis.

This research used the value of 0.3 and above as an acceptable item-to-total correlation value suggested Edgett (1991) since it's been widely used in prior studies in business and management field (e.g., El-Gohary, 2009; and Mostafa, 2003). Therefore, if the total Cronbach alpha value is less than 0.6 and the item-to-total value is lower than 0.3, this research might consider excluding the item unless the item represents an additional area of concern. The process and outcome of reliability analysis and item-to-total correlation are presented in detail in chapter 9- section 9.2.

### **Conclusion and Summary of the Research Method and Research Methodology (How and Why)**

This study employing an empirical and multi-disciplinary approach to E-Marketing research. This approach was chosen because it incorporates the concept of triangulation by combining focus group, one to one in depth interviews and small- and large-scale survey questionnaires. Moreover, the proposed preliminary framework, as well as the different relationships within it, which was generated from the review of the literature and the outcomes of the exploratory studies, will be tested, and validated by rigorous quantitative analysis (e.g., multiple regression analysis, simple regression analysis, Chi square, one sample T-test and path analysis). To the extent that empirical study of E-Marketing adoption by distribution firms is concerned, this study is one of the first studies of E-Marketing (that examined all or most of its components) that combines quantitative and qualitative research into a single research design. Within this context, and based on the review of the literature, (see appendix 3) only 14% of the studies from 273 studies within the field have employed a triangulation approach to investigate E-Marketing usage. All these studies did not examine E-Marketing or its adoption by distribution firms. Moreover, to the extent that empirical study of the impact of E-Marketing adoption by distribution firms on marketing performance is concerned, this study is one of the first studies to investigate such an impact and combines quantitative and qualitative research into a single research design. Most of the previous empirical studies on E-Marketing employed either survey research strategy or case study research strategy (see appendix 3) as their main method of research design. Therefore, by using the triangulation strategy through combining in depth literature review, quantitative survey research and qualitative research, this study overcomes the limitations of previous studies and provides a new perspective for E-Marketing and its implementation.

## 5.8 Time Horizon

Time horizon within the research is related to the period of interaction with the study participants. Time horizon in research is classified into two types of a longitudinal study where a research on people or phenomena is taken place over a specific period, and cross-sectional study that is a study of individuals or phenomena at one point or in another word is the snapshot taken in a specific time (Saunders *et al.*, 2016; and Sekaran and Bougie, 2013). The choice of time horizon by researcher is depends on the time availability, research questions, strategy, and objectives of the study (Saunders *et al.*, 2009). Furthermore, by reviewing the extant literature on the studies of ICT and online marketing adoption in firms, it was established that cross-sectional is the appropriate time horizon for the following reasons: First; cross-sectional study is a snapshot engagement of the phenomena. The external and internal environment of the organisation, and technology is changing continually, thus, the determinant factor of the E-Marketing may not be an influencing factor for E-Marketing adoption after years (Walsham, 2006; and Kurnia and Johnston, 2000). Second, this study is forced by time as suggested by (Saunders *et al.*, 2016; and Bryman and Bell, 2015, p.59), cross-sectional study would be applied for such situation.

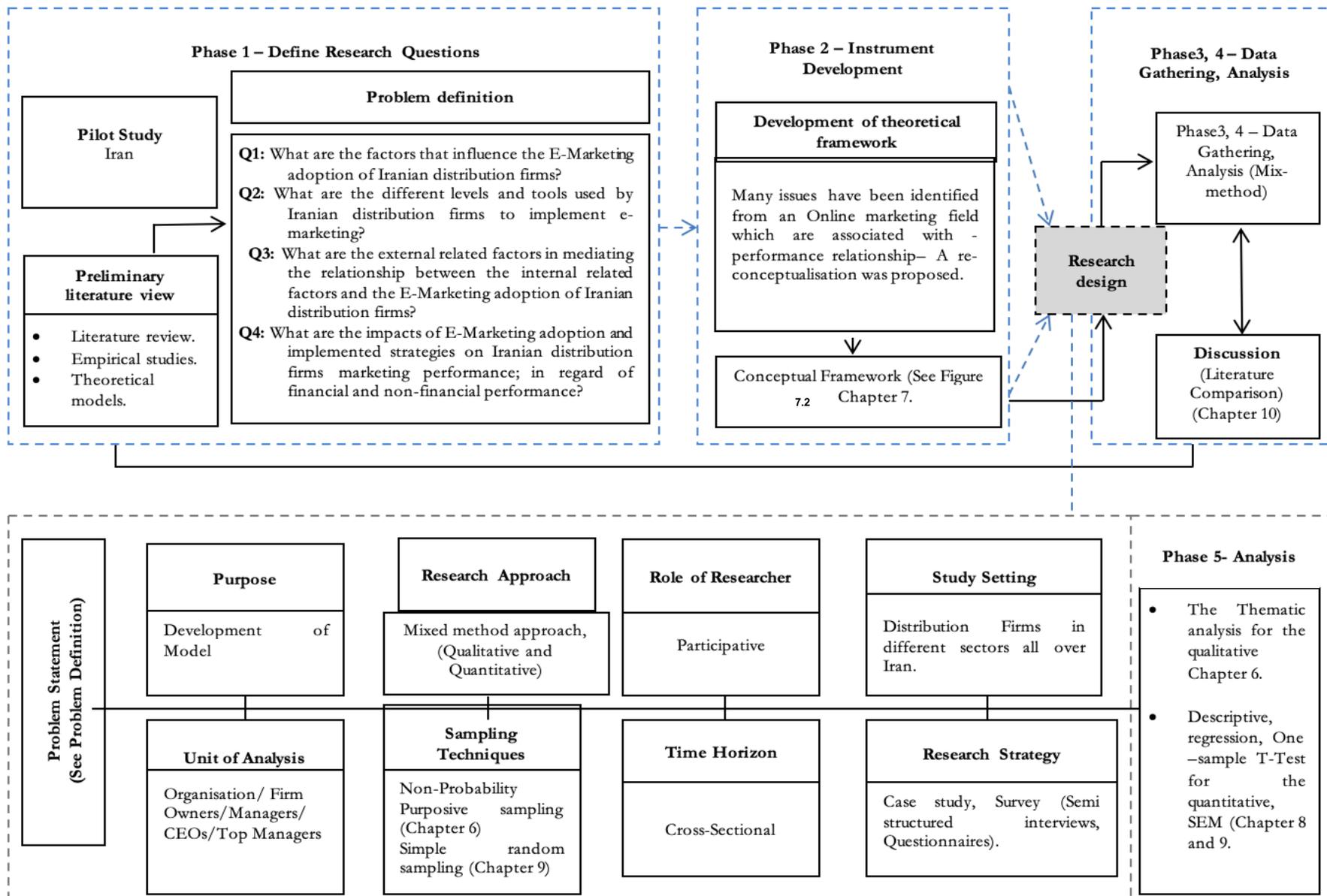
## 5.9 Ethical Considerations in the Current Study

Ethical considerations of the study need to clearly present the need to understand the fundamentality of an ethical study and its impact, prior to conducting the research especially if it engages with communications and interactions with respondents such as organisations or participants (Polonsky and Waller, 2005). To be sure, if the study meets professional and institutional principles, ethical considerations were identified before and throughout the data collection process. During data collection and interaction with research respondents, the researcher requires to be vigilant of not offending the participants, either financially or psychologically. The current researcher followed various ethical research standards to prevent offending the participants as well as to protect the research team (supervisors and researcher), and institution in contradiction of any future legal problems that might be claimed by participants.

All research activities conducted including interviews and survey questionnaire require to be submitted directly to the Business School Research Committee within the university framework. This study followed the university framework for the ethical approval. The research submitted the ethical application along with participants' information sheet, consent

form, letter of invitation for research participants to faculty's Ethics Committee at Birmingham City University and approval was issued in August 2017 for the research study (See Appendix 16).

Regarding information sheet, the research participants were informed of the purpose, aims, and objectives of the study, as well as the study's contribution to field and wider society were explained to make sure the research respondents are not to be affected physically, socially, and psychologically. Moreover, the researcher assured to avoid any activities that may have negative impacts on participants. In the information sheet, the confidentiality, anonymity, and a clear testimonial on their right of their withdrawal of their participants at any time, have been stated clearly. To ensure of the privacy protection, the study guaranteed that no personal information that is not relevant to the aim of the research would be revealed. Moreover, participation in survey questionnaire is completely anonymous. Finally, the respondents have given a choice to fill the contact details if they wish to get the results of the study. Only research team have access to the data collected from the survey questionnaire.



**Figure 5.4:** The Research Process and Design. **Source:** Adopted from Styles and Hersch, (2005)

## 5.10 Chapter Summary

Within chapter Five, the research methodology used for this study, the reasons and justifications for choosing the research design have been discussed. The discussion about the research methodology in chapter five is based on the outcome of the literature review conducted in chapter two, three and four. Subsequently, stages of designing the study approach; sampling process, data collection, and analysis methods were presented. The reason for choosing the research design based on aims, objectives, and research questions were justified in chapter five. The chapter begins with a discussion on essential data about the different study approaches, methodologies, and designs in general. Afterwards, the chapter discussed the importance of choosing a suitable research design and methodology in the research. Later, the various essential paradigms in study and the suitable post-positivism paradigm supporting this current study were discussed in this chapter. Next, all study methodology steps and processes were discussed based on the post-positivism paradigm.

Furthermore, the chapter displayed the outcomes of a literature review on research methodology, design, and data collection methods deployed in the prior literature between 1993 and 2021. The aim for reviewing the extant literature was to support the chosen research design of this current study. Hence, this research found that the triangulation approach remains scant in E-Marketing and E-adoption study context. Majority of studies conducted single method either the qualitative or the quantitative. Therefore, the selection of triangulation approach in a study of Iranian distribution firms' E-Marketing adoption is justified and is necessary to fulfil the research gap. The chapter then demonstrated the triangulation methodology will be used concerning data, method, and methodological triangulation. The selection of this approach was justified to achieve the study objectives and to answer the research questions.

Subsequently, Chapter 5 discussed sampling process and methods deployed in the research. In this section, the issue regarding sampling process such as sampling type, size, and unit of analysis was demonstrated. In addition, chapter five discussed data collection techniques, the research questionnaire construction, entry of primary data, and data analysis process. Finally, the chapter ended with a brief discussion in regard of the qualitative data collection and justified the deployment of semi-structured interviews contributors in the research. The summary of methodology is illustrated in Figure 5.7. The details of semi-structured interview process and outcomes are discussed in detail in Chapter 6 of the study.

## Chapter 6: Exploratory Interviews- Exploring E-Marketing Adoption by Iranian Firms in Distribution Sector

*“Knowing is not understanding. There is a great difference between knowing and understanding: you can know a lot about something and not really understand it. You don’t know it until you explore it”*

### 6.1 Introduction

This chapter devoted to exploring the aspects of E-Marketing adoption by Iranian distribution firms through semi-structured face-to-face and focus group interviews. A preliminary investigation conducted in the exploratory phase, aiming to provide direction to what factors are imperative to firms in the region. The main reason for the exploratory phase of the study is to purify the prior data gained from the extant review of literature. Since the theoretical bias about the factors, contributing Iranian distribution firms’ decision to adopt E-Marketing, were scant or there was no pre-existing. The exploratory phase will increase the understanding about the appropriate factors to the Iran context.

This chapter begins with a discussion of the need for the exploratory phase to highlight the study methodology and administration. Emphasis is then placed on presenting the findings, in which different issues and concerns are discussed. The findings of the investigation are then used to refine the research framework. This chapter then extends the literature by discussing relevant studies that bears upon factors represented in the framework. It discusses the identification of the research constructs and addresses arguments raised from relevant literature; hence, propositions are spelled out.

This chapter started with discussion on the statuses of Iranian distribution firms. The topics argued contain overviewing Iran geographically, analysing and discussion on the current situations of Iran economy, impact of distribution firms and new technology on the GDP growth, new technology adoption in distribution industry, outlining the profile of Iranian distribution firms, their contribution in economy of Iran, and outlining the study distribution firms. The chapter, continuous with reporting on the process of data collection of exploratory phases through semi-structured, face-to-face and focus group interviews. The report contains the development of sample size and interview guides, conducting data collection through semi-structured interviews, transcribing the collected data, and subsequently analysing and

discussing the results of the interviews. Finally, the chapter concluded the researching findings from the exploratory phase and consequently compares them with the data gathered from the literature review. Next, the researcher will use the results as a base for developing research framework and research hypotheses.

## **6.2 The Need for an Exploratory Phase**

The lack of research on determinant factors of adoption of new technologies, motivates the scholars to conduct studies in different country contexts and industries. This research investigating the determinant factors of E-Marketing Adoption in the case of Iranian distribution firms. This section argues that there are both literature and methodological needs to initiate the study with the exploratory phase to acquire, rich and deep insight, to develop a comprehensive conceptual framework that mirrors the study context. Some new technology researchers recommend that studies on this context need to initiate with qualitative exploratory phase, which is generally followed by confirmatory quantitative phase (Straub and Carlson, 1989 cited in El-Gohary,2016). Such an insight fits for studying complex subjects like E-Marketing in Middle Eastern developing countries such as Iran. Lack of study and literature investigated on E-Marketing adoption, and the subsequent adoption, at an organisational level in different regions such as Iran. In recent statistics by (CBI, 2021; ITC, 2021; InternetWorldstats, 2021; and Statista, 2021) on Internet penetration in Iran suggest that greater adoption and usage of E-Marketing and new technology innovations likely to appear in the country within the next few years. However, scholars that are interested in investigation of E-Marketing in these markets are dependent on a disjointed, and not an accessible literature that presents a possibly partial picture of E-Marketing practice in such provinces (Shoib and Jones, 2003). It is not appropriate to improve suggestions based on fragmented literature, therefore an exploratory and qualitative investigation is needed as an initiate point that will contribute for developing a research framework that also done by previous studies such as Chong and Bauer (2000), Scupola (2009), and El-Gohary (2009) in the same study field.

## **6.3 Background Overview of Iran and Iranian Distribution Industry**

### **6.3.1 Overview of Iran**

#### **6.3.1.1 Iran at Glance and Economic Assessment**

The Islamic Republic of Iran is a country located in the Middle East (West Asia) and is in border with Armenia, Azerbaijan, Turkmenistan, Kazakhstan and Russia from north, on the

east side by Afghanistan and Pakistan, from south near by the Persian Gulf and the Gulf of Oman, and from the west bordered with Iraq and Kuwait and on the northwest by Turkey (Web Archive, 2020, and Amar, 2020). By region, Iran is separated into five regions which is 31 provinces, each governed by an appointed governor (World Economic Database, 2020). The provinces are alienated into counties and sub-divided into districts and sub-districts (Iran business time, 2020; and World Economic Database, 2020). Iran has the highest urban growth rates in the world according to ibid, (2020). The urban proportion of the population from 1950 up to 2017 has significant growth from 27% to 74% and as the United Nations (2021) forecasts, by 2030, this growth will be increased to 80%. Tehran is the capital and the largest city in Iran with a population of around 8.7 mn (2020 census) (Amar, 2020; and Statistical Centre of Iran, 2020). Iran, due to its great oil and gas resources, is a dominant country in the region and plays an important role in the security of international energy and economy resources (World Economic Database, 2020, and Data World Bank, 2020).

Iran is the 18th largest country in the world, with an area of 1,648,195 km with the total population of 81.16 mn updated 11 September 2020 of which is divided to 40.50 mn were men and 40.66 mn were women, also 74.1% are urban and 25.9% are rural in the year ended 2017 (Statistical Centre of Iran, 2021). The population growth has had a descending trend and decreased from 2.46% during 1986 – 1991 to 1.24% in 2011- 2020 (Statistical Centre of Iran, 2021). Furthermore, Iranian citizens speak in any languages, as the official language is Persian (Farsi) (Harmatta, 2018). Persians represent for 61% of the population, followed by other spoken languages, Kurds (10%), Lurs (6%), Balochs (2%) and the remaining 21% including the Azeri (16%), Arabs (2%), Turkmens and Turkic tribes (2%) as well as Armenians, Assyrians, and Georgians (Harmatta, 2018). The Persian and Azeri citizens contribute the largest ethnic groups in Iran (Mansoori, Firooz, 2008). In terms of religion, the majorities which is 89% of the population are Shi'a Muslim and 10% are Sunni Muslim and the remaining 1% are other religions. (Avid, 2013, and Islamic history, 2015).

### **6.3.1.2 Current Economic Status of Iran**

According to the Central Bank of Iran (2021) the GDP amounted to 3,539,000 bn IRR worth 439.51 billion US dollars in September 2020 and the economy experienced 4.5% growth. The GDP value of Iran represents 0.71 percent of the world economy averaged 175.13 USD billion from 1965 until 2020, reaching an all-time high of 598.85 USD Billion in 2012 and a record

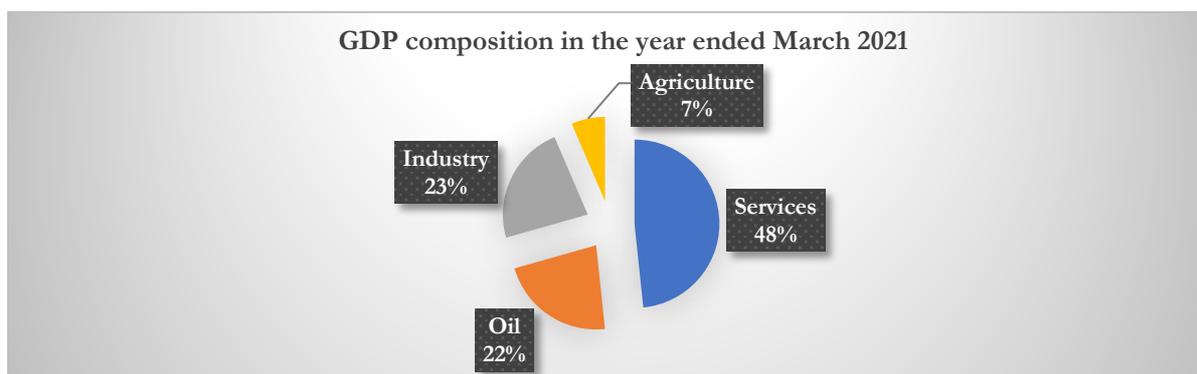
low of 6.20 USD Billion in 1965 (Trading economics, 2020). The International Monetary Fund (IMF) (2020) predicted that GDP growth will reach 4.2 percent in the year ending March 2020 and given the financial sector improves, this trend would even increase to 4.5 percent, in the medium run as shown in Figure 6.1.

**Table 9** GDP and Economic Growth in Iran

|  | Yr. ended March 2015 | Yr. ended March 2016 | Yr. ended March 2017 | Yr. ended March 2018 | Yr. ended March 2019 | Yr. ended March 2020 |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>GDP Constant Price (000 bn IRR)</b> | 5,873                | 5,854                | 6,043                | 5,947                | 6,691                | 3,539                |
| <b>Economic Growth</b>                 | -7.7                 | -0.3                 | 3.2                  | -1.6                 | 12.5                 | 4.5                  |
| <b>GDP Current Prices (bn USD)</b>     | 598.9                | 467.4                | 434.5                | 376.2                | 405.0                | -                    |

Source: IMF (2020)

Regarding to Iran GDP composition, Service section contributed amounting 48.30% shares of total value. While oil industry contributed to 22.20% shares, manufacturing section contributed 23.00% shares, and agriculture section having the least contribution of 6.4% of total share in 2021 according to CBI (2021) (refer to figure 6.1).



**Figure 6.1:** GDP composition in the year ended March 2020. Source: CBI (2021)

According to the Central Bank of Iran (2021), the economy scored a record growth rate of 13.4 percent. Although Iran’s economy is moderately diversified for a “resource-rich” country, oil incomes still have a vital role in public finances and external accounts. Iran’s economy, one of the Middle East’s most advanced before 1979, has been plagued by mismanagement, international sanctions, graft, and regional tensions (Trading Economics, 2020; and Economic Freedom, 2020). Iran has the world’s second-largest reserves of natural gas and fourth largest reserves of crude oil (Focus Economic, 2020). The relaxation of sanctions and reintegration into the international economy in 2015 have allowed Iran to expand its oil exports, attract greater investment, and increase trade (IMF, 2020; and Statista, 2021). On the other hand, Iran ranked 18th in GDP on PPP and the 2nd largest economy in the MENA region in 2016, after

Saudi Arabia, with the diversified economy of 1,450 bn USD in value (Statista, 2021; and Trading Economics, 2020). In the past 25 years, five development plans completed and earned mn dollars of more than 50 countries as could be seen in Table 6.2 (World Bank, 2021, and IMF, 2020). Figure 6.2 depicts the GDP ranking of Iran according to the countries in 2021.

**Table 6.2:** GDP (PPP) Ranking in 2021

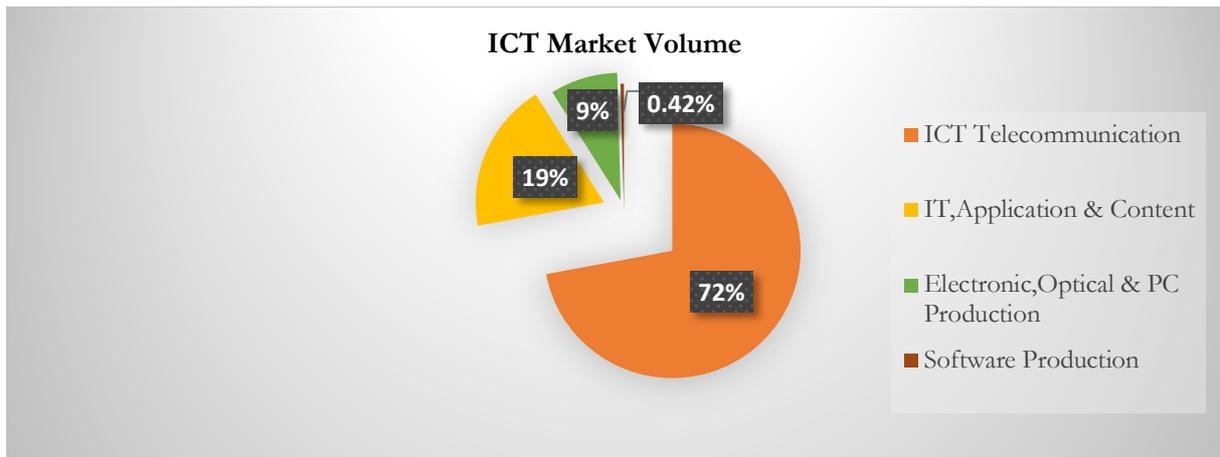
| Rank | Country       | GDP (PPP- bn Int.USD) | Share (%) | GDP PER capita (PPP-bn Int.USD) | Rank |
|------|---------------|-----------------------|-----------|---------------------------------|------|
| 1    | China         | 21,269.02             | 17.9      | 15,424                          | 81   |
| 2    | United States | 18,561.93             | 15.6      | 57,294                          | 13   |
| 3    | India         | 8,720.51              | 7.32      | 6,658                           | 126  |
| 4    | Japan         | 4,931.88              | 4.14      | 38,894                          | 30   |
| 5    | Germany       | 3,979.08              | 3.34      | 48,190                          | 19   |
| 17   | Turkey        | 1,669.89              | 1.4       | 21,147                          | 63   |
| 18   | Iran          | 1,459.2               | 1.23      | 18,136                          | 70   |
| 19   | Australia     | 1,188.76              | 0.998     | 48,806                          | 18   |
| 20   | Thailand      | 1,161.33              | 0.975     | 16,835                          | 77   |

Source: IMF (2020) and World Bank (2021)

However, in the recent months, Iran’s economy is decomposing as new economic sanctions challenging investor sentiment, fuel inflationary pressures and weaken the IRR currency for that reason the economy has growth at 2.0% in 2020, down 0.7 percentage points from last month’s estimate. In 2021, the economy is expected to contract 0.3% (Focus Economics, 2020).

### 6.3.1.3 New Technology as Impetus to Sustainable GDP Growth

Despite of unstable political, social, and economic conditions in Iran, the communication and information technology (IT) industry has witnessed a dramatic growth in quantitative and qualitative and legal aspects in recent years (OECD, 2021). Estimated ICT market in the year ended March 2020 was 11.5 bn USD. Currently, the share of the telecommunications market is 72%, information technology, applications and content market are 19% of the total ICT sector and the other two sectors have share 9% of the total market (8.5% of electronic, optical and computer products and about 0.5% of software publication) in information and communications technology as illustrated in Figure 6.2.



**Figure 6.2:** ICT Market Volume. **Source:** Ministry of Communication & Information Technology (2020)

With regard to Infrastructure, the capacity of inter-city optical fiber cable, international bandwidth and IP network capacity, Iran made a significant growth in 2019 compared to year ended March 2017, and 2018 by 9.7%, 35.8% and 70%, respectively. The United Nations Conference on Trade and Development (UNCTAD) in 2019, nominated Iran as one of the world’s top developing economies by Online marketing index in 2019 and ranked 46th in the related index (refer to Table 6.3).

**Table 6.3:** Top 10 Developing Countries in E-Marketing Index

| Rank in 2019 | Country             | Internet User Ratio (%) | Safe Serves (Score of 100) | Mail Services reliability (Score of 100) | Total Score According to 2019 data (of 100) |
|--------------|---------------------|-------------------------|----------------------------|--|---|
| 4            | South Korea         | 93                      | 96                         | 99                                       | 96  |
| 16           | Hong Kong           | 87                      | 88                         | 92                                       | 91  |
| 18           | Singapore           | 81                      | 87                         | 97                                       | 90  |
| 23           | UAE                 | 91                      | 79                         | 96                                       | 87  |
| 38           | Malaysia            | 79                      | 66                         | 82                                       | 77  |
| 39           | Mauritius           | 53                      | 71                         | 96                                       | 76  |
| 42           | Trinidad And Tobago | 73                      | 67                         | 75                                       | 73  |
| 45           | Saudi Arabia        | 74                      | 59                         | 75                                       | 69  |
| 46           | Iran                | 53                      | 45                         | 86                                       | 69  |
| 48           | Thailand            | 48                      | 54                         | 93                                       | 68  |

**Source:** UNCTAD (2019)

Iran with a score of 3.7 (score between 1 to 7) in the index of network readiness in 2019, ranked 92 (among 139 countries) according to World Economic Forum, Global Information Technology Report (2019), which is not considered as an adequate rank in comparison to other “middle-income” countries. However, this rank in 2015 has been upgraded by 4 (Table 6.4).

**Table 6.4:** Comparison of Iran and Selected Countries in Network Readiness Index 2018

| Country      | 2012             | 2013             | 2014             | 2015             | 2018             |
|--------------|------------------|------------------|------------------|------------------|------------------|
|              | Among 142 states | Among 144 States | Among 148 States | Among 143 States | Among 139 States |
| Iran         | 104              | 101              | 104              | 96               | 92               |
| Turkey       | 52               | 45               | 51               | 48               | 48               |
| Russia       | 56               | 54               | 50               | 41               | 41               |
| Saudi Arabia | 34               | 31               | 32               | 35               | 33               |
| UAE          | 30               | 25               | 24               | 23               | 26               |
| Pakistan     | 102              | 105              | 111              | 112              | 110              |
| China        | 51               | 58               | 62               | 62               | 59               |

**Source:** World Economic Forum, Global Information Technology Report (2020)

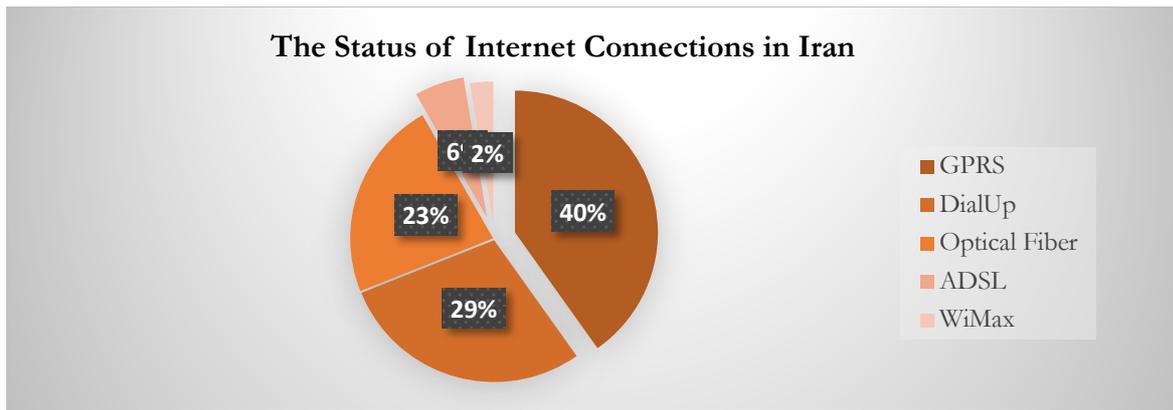
Iran is one of the first countries with access to internet in Middle Eastern region and about 1% of the world domains belong to “IR” and 1.5 percent of all internet content is allocated to Persian language (Internationalised Domain Names, 2019). On the other hand, there are 62,702,731 of internet users in Iran in March 2021 and Iranian user’s presence on social platform in global scale is about 80.5% users. The Internet penetration in 2021 was about 36.9% in the year ended March 2021, the ratio of Internet users increased by 11.6% compared to year ended March 2020 according to Ministry of Communication and Information Technology (2020) and Internet World Stats (2021) (refer to Table 6.5). Mobile phones have the major impact on this increased penetration as 42% of total (Financial Tribune, 2020).

**Table 10**Internet Users (%) in Iran

| Title                                 | Yr. ended Mar 2019 | Yr. ended Mar 2020 | Growth (%) |
|---------------------------------------|--------------------|--------------------|------------|
| Households with PC Ratio              | 8.06               | 10.59              | 2.53       |
| Households with Internet Access Ratio | 170.607            | 197.804            | 21.197     |
| Internet Users’ Ratio                 | 25.3               | 36.9               | 11.6       |

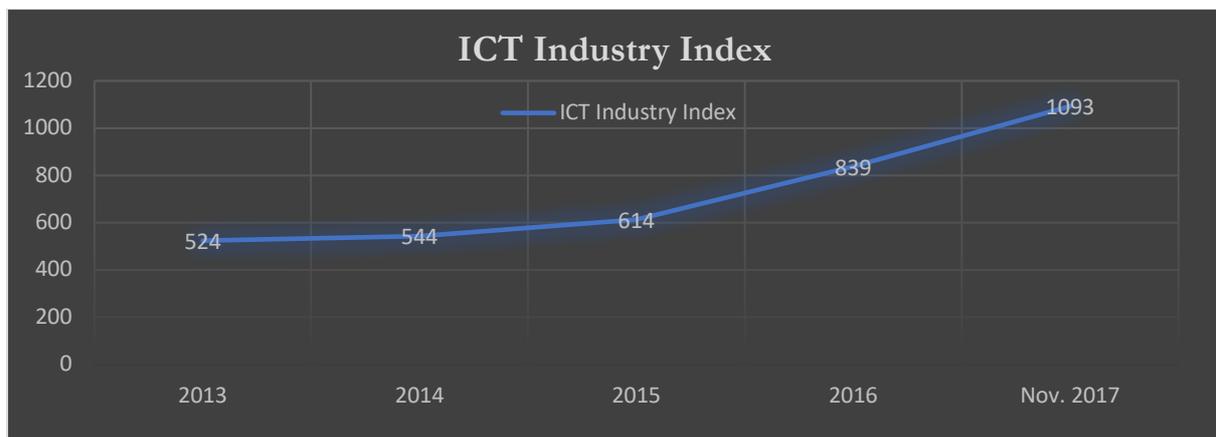
**Source:** Ministry of Communication and Information Technology (2020); and InternetWorldStats (2021)

On the other hand, the largest share of Internet connections is owned by GPRS, accounting for more than 40.5% of all Internet communications. Dial Up and Optical Fiber are up 28.6% and 22.7%, respectively in 2020 according to Ministry of Communication and Information Technology 2020 as can be seen in Figure 6.3.



**Figure 6.3:** The status of Internet Connections in Iran. **Source:** Ministry of Communication and Information Technology (2020)

In regard of the slow internet access, Iran counted as one of the most low-cost countries in the broadband market and is the world's 14th rank according to (Trading Economics, 2020). The fixed broadband service price is assessed at 0.6% of the income per capita (Internet World Stats, 2021; TehranTimes, 2020; and Khabar Online, 2020). Growing ICT Market in Iran is up to 11.5 bn USD and this number targeted to be tripled to reach 28.7 bn USD in 2021 (Statista, 2021; and ICTNA, 2021). Yet, according to (Iran Business Time, 2020), 1% share of Iran's population, as a minimum 1% of the world economy of ICT should be equal to 63.7 bn USD, which is targeted at 28.7 bn USD in 2020 (Iran Business Time, 2020). With P/E ratio of 5.15, the telecommunication group with a market value of 9,055 mn USD, accounted for almost a share of 8.8% of Iran capital market value as illustrated in Figure 6.4 according to TSE (2018).



**Figure 6.4:** ICT Industry Index. **Source:** TSE (2018)

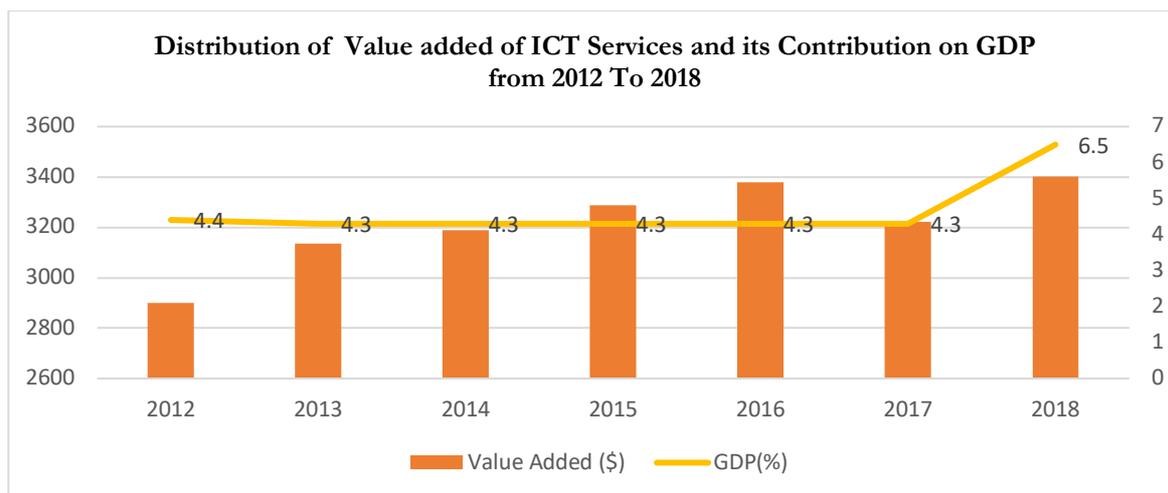
#### 6.3.1.4 New Technology as Impetus to Sustainable GDP Growth in Iran

Adoption of new technology in the business gives a higher potential for firms to enter markets that are more diverse. The number of these companies grew progressively from 55 in the year ended March 2014 to more than 3,000 companies in the year ended March 2020 in Iran

according to (Iran Business time, 2020). At present, the current turnover of these companies is more than 12.7 bn USD as stated (Financial Tribune, 2020) with the share about 0.5% of GDP. Based on the annual report of the Global Innovation Index, Iran's status in the world Technology innovation index in terms of various indicators such as technology and innovation has improved over the years between 2016 to 2020 and reached to 75th place in 2020 (InternetWorldsStats, 2021; and Statista, 2021).

The information and technology sector in Iran is one of the fastest developing industry in Iran in recent years and is the main impetus for innovation and economy expanding in 2020-2021 (Statista, 2021; and InternetWorldStats,2021). New technology currently has a 2.1% share in Iran's GDP and the share is estimated to reach 8% as per the five-year Growth Plan from 2017 to 2022 (ICT,2020). In addition, the share of this sector in the value added of the Iran's economy is at 2.12%, including 1.58% for communications technology and 0.54% for information technology (Iran TeleCom, 2020). The highest rate of development among nine different economic sectors in Iran during the five development plans belongs to new technology. The five-year growth strategies are "medium-term" roadmaps planned to achieve sustainable growth (TechRasa, 2020).

In 2019, Iran is placed 89th for ICT Development Index with a score of 4.99 that has gone up by 1 rank in comparing with 2018 ranking (Payvand, 2019). In recent years, new technology has become an integral part of all business plans and play a role, this including from international organisations that uphold and records mainframe and databases to small and medium enterprises that own a single computer and not only lead businesses to grow but has key role in expanding economy (ICT, 2020; and Payvand, 2019). ICT continues to play a significant role in economic and GDP growth. The United Nations Conference on Trade and Development (ICTD) 2019s Information Society (ICT) report says that the share of ICT services sectors in GDP is around 6.5% in Iran in 2018 with sudden increase after 5 years no change (See Figure 6.5). The development of new technology services leads to the emergence of new industries and new businesses lead to more economic activities and higher GDP, which indicate the undeniable influence of IT on economy (ICTNA, 2020).



**Figure 6.5:** ICT Industry Index (2018). **Source:** Adapted from (ICTNA, 2019)

### 6.3.2 Overview of Iranian Distribution Industry

In 2020, the distribution industry had 63.7-bn USD turnover in Iran economy (The Association of Iranian Distribution Industry; 2020, and Financial Tribune, 2020). The distribution industry in Iran has 45 percent profit margin in country (Product Distribution Management System, 2020). This industry contributed 49 percent to total national income (Donyaye Eghtesad, 2020, and Pars Oghab, 2020). This reflects the important role of this industry in the supply chain of other industries. Presently, distribution firms throughout Iran reported by Iran Business Time (2020) distribute 100% of pharmaceutical and 70% of groceries, cosmetics, and hygienic goods. Furthermore, IT tools contributed a significant 40.3% share in the total economic growth throughout the country. This is while the percentage was at 18.8% at the beginning of the “Fifth Five-Year Development” Plan since March 2014. Increase in this percentage, depends on skills, knowledge capital, and financial resources (Association of Iranian Distribution Industry, 2020; Product Distribution Management System; 2020; and Nordeatrade, 2020). *“There are many distribution firms in different sectors that adopted the new technology innovation and implement IT tools for better business strategies. Hence it is Vital for distribution firms to increase their efforts to continue as a main remaining driver of Iran’s economic growth”* (Martina Lubon, the International and Partner Sales Director of CEBIT, 2019).

#### 6.3.2.1 Profile of Iranian Distribution Firms

Distribution or place is one of the most important basics of four elements of marketing mix. The distribution industry in Iran has a wide geographic scope with respect to the governmental, private, and cooperative sectors, so that customers in all provinces in Iran can obtain their needed goods through distribution companies (Pars Oghab,2020, and Product Distribution

Management System, 2019). The distribution companies in Iran in comparison to other major economic sectors has less dependent on the government facilities (Association of Iranian Distribution Industry; 2020, and Dana Fard, 2019). The definition of distribution varies however, according to (Kinyanjui, 2015, and Kotler and Armstrong, 2012) is the process of making products/services to the customers/consumers or business users that require. This can be done directly by the manufactures/producers or service provider, or it can be produced by the manufactures and be distributed through indirect channels names as distributors or intermediaries. In Iran, distribution networks are diversified from guilds units to large chain stores and distribution companies are the most significant actors of it (Noretrade, 2020, and Iran Business time, 2020). Furthermore, “Government Trading Corporation of Iran”, as a government agent, plays a vital role in the distribution network in Iran (IRT, 2019). Presently, 100% of pharmaceutical and 70% of groceries, hygienic and cosmetics are distributed by distribution firms (Iran Business Time, 2020).

The type of distribution is varying in the companies, some of the companies distribute solely Groceries, Hygienic, pharmaceutical, cosmetics etc. and some of the companies distribute the combination such Pharmaceutical- hygienic, hygienic-groceries, Pharmaceutical- Hygienic- Cosmetics etc. (Association of Iranian Distribution Industry, 2020). There are, however, other types of distributions such as electronics and house appliances, Tobaccos, Oil, Petroleum Products, medical equipment, agricultural outputs, Automobile facilities, Batteries etc. (ShirinAsal, 2019b, and Association of Iranian Distribution Industry, 2020). Most of the distribution companies in Iran are in small size of distribution scale which this is one of the biggest challenges in this system, confronts to less strategic coalitions in this segment (Association of Iranian Distribution Industry, 2020) and have made the distribution system ineffective and as the consequence, the system suffers from lack of modern tools and methods for distribution (Moyragi, 2018).

Although the distribution industry is highly operational, the knowledge used in this industry is completely local, thus the advancement of knowledge in distribution industry companies is essential (National Distribution Association of Iran, 2019). The distribution channel structure in Iran is mainly traditional and distinctive. The main channel elements are the retailers, wholesale network, suppliers, business partners, and the logistics infrastructure (Association of Iranian Distribution Companies, 2019). Despite the many benefits proposed by traditional distributors in Iran, transformation has chosen up in many distribution sectors which have resulted from both supplier side and demand side by appearing in the online trade activities

particularly, in IT software and Hardware, IT Technology products, and smart phones (ICT, 2019, and National Distribution Association of Iran). The most common distribution systems in Iran are divided into three categories: 1) Distribution through Wholesale Networks, 2) Distribution of goods through Distribution Companies, and 3) Distribution of goods directly from manufactures (Kotler and Armstrong, 2012, and Mahdavi and Haghdoost, 2007).

One of the main differences between distribution systems in Iran with distribution systems of other countries, is the form and structure of distribution channels. In Iran, trade associations, establish and distribute traditionally without considering new technology approaches of distribution in large and small number (Aghajani, 2009). Distribution channel in Iran has different characteristics and various issues that require amendments and advancements. For example, the large number of trade items in the retail exchange, the gap among prices paid to manufacturers, the price that the end-user pays for lack of adequate information on distribution activities, improbability and unaccountability of distribution networks, and the presence of domination in market (Alavimanesh, 2009). The size of channels, lack of new IT tools and the variety of distribution mediators, enforce huge costs and therefore, contribute to increasing the final price and decreasing the effectiveness of distribution network (Fayyaz and Azizinia, 2016). Moreover, scarce of IT skill level of employees and manager/top managers has a significant impact on falling of the productivity of distribution network (Sharifi, Masoudi, and Javadin, 2018). Many distribution companies in developed countries have implemented Information Technology initiatives in their distribution channels including establishment of PC systems and promoting software to CFAs and connecting them with their suppliers/customers' databases, providing devices such as tablet for salespersons to precise billing, utilising GPS enabled transportation vehicles, etc. (Abdolvand, N Baghbanian., 2011). However, in Iran the distribution network is not in a desirable position in terms of the distribution system as the traditional distribution network is dominant on economy of country (Sharifi, Nesabi, and Yavarzadeh, 2018).

### **6.3.2.2 Division of Iranian Distribution Firms According to Geographical Regions**

Based on the investigation on databases and records, the research population frame was made encompassing comprehensive sub-classification data for 2472 distribution firms within Iran. The information comprised of the name of the distribution firms, the scope of business, Sector, and web address. These 2472 distribution firms achieved the characteristics that stated previously (Chapter five) to be comprised in the research population frame. To confirm that,

these distribution firms met the last criteria (using E-Marketing to conduct marketing activities), and to check that it really met the other first three features, each single web address of the generated distribution firms was checked by the researcher (totaling 2472 addresses), to make sure that these distribution firms are headquarters and uses E-Marketing to conduct its marketing activities. This searching process was conducted for three months over the period from 20/03/2017- 20/05/2017. Based on this research and scanning, 180 distribution firms were excluded from the population frame for the following reasons:

1. Some of the firms had web address but they were terminated and was not working any more.
2. Some distribution firms had more than one web address in the databases and records and because of that added up more than one time.
3. Some firms were classified by the databases as distribution firm, however in the reality they were the manufacture which directly distributed the products to the end-customers, as this study was looking for the distribution firms that are essentially a mediator between the manufactures/suppliers and the customers/retailors.

Distribution firms exist throughout Iran (Including developed and rural areas) and the distribution of research population is representative of the Iranian distribution firms. Remarkably, most Iranian distribution firms established in six main cities of Iran including Tehran as the capital of Iran 8.5% (195 Distribution Firms), Isfahan 8.1% (186 Distribution Firms), Fars 6.4% (148 Distribution Firms), Mazandarana and Razavi Khorasan 5.5% (127 Distribution Firms), and East-Azerbaijan 4.9% (102 Distribution Firms). As the differences between the research population and the Iranian distribution firms' population according to location is moderately very slight, the distribution of the study population is more likely to be representative of the Iranian distribution firms' population. Based on this fact, the study population is not only reliable and can be utilised in studying the research field, but also has great potential to achieve to a meaningful outcome and will allow the researcher for the generalisation of the research findings. Table 6.6 shows the distribution of Iranian distribution firms according to the geographical province in 2019.

**Table 11** Distribution of Iranian Distribution Firms According to Geographical Regions in 2019

| N  | City                       | Number of Distribution Firms | Percentage (%) |
|----|----------------------------|------------------------------|----------------|
| 1  | Tehran                     | 195                          | 8.5%           |
| 2  | East Azerbaijan            | 102                          | 4.9%           |
| 3  | West Azerbaijan            | 98                           | 4.2%           |
| 4  | Isfahan                    | 186                          | 8.1%           |
| 5  | Alborz                     | 52                           | 2.2%           |
| 6  | Ardabil                    | 36                           | 1.5%           |
| 7  | Bushehr                    | 46                           | 2.0%           |
| 8  | Chaharmahal and Bakhtiari  | 61                           | 2.6%           |
| 9  | Fars                       | 148                          | 6.4%           |
| 10 | Gilan                      | 84                           | 3.6%           |
| 11 | Golestan                   | 49                           | 2.1%           |
| 12 | Hamadan                    | 31                           | 1.3%           |
| 13 | Hormozgan                  | 61                           | 2.6%           |
| 14 | Ilam                       | 78                           | 3.4%           |
| 15 | Kerman                     | 98                           | 4.7%           |
| 16 | Kermanshah                 | 69                           | 3.0%           |
| 17 | Khuzestan                  | 97                           | 4.6%           |
| 18 | Kohgiluyeh and Boyer-Ahmad | 47                           | 2.0%           |
| 19 | Kurdistan                  | 52                           | 2.2%           |
| 20 | Lorestan                   | 47                           | 2.0%           |
| 21 | Markazi                    | 36                           | 1.5%           |
| 22 | Mazandaran                 | 127                          | 5.5%           |
| 23 | North Khorasan             | 74                           | 3.2%           |
| 24 | Qazvin                     | 39                           | 1.7%           |
| 25 | Qom                        | 31                           | 1.3%           |
| 26 | Razavi Khorasan            | 127                          | 5.5%           |
| 27 | Semnan                     | 53                           | 2.3%           |
| 28 | Sistan and Baluchestan     | 27                           | 1.1%           |
| 29 | South Khorasan             | 29                           | 1.2%           |
| 30 | Yazd                       | 65                           | 2.8%           |
| 31 | Zanjan                     | 47                           | 2.0%           |
|    | <b>Total</b>               | <b>2292</b>                  | <b>100%</b>    |

Sources: Adapted from National Distribution Association of Iran (SDPMS) (2019) and Association of Iranian Distribution Companies (APIR) (2019)

### 6.3.2.3 Division of Iranian Distribution Firms According to Business Sector

Conversely, as stated previously, the research premeditated to gain responses from distribution firms in different sectors of distribution and not just distribution of only one specific type of product so that the generalisation of the results could be established. The revised population includes distribution firms in six specific sectors namely, groceries, Hygienic, Electronics and Home Appliances, Pharmaceutical and medical, Cosmetics, Petroleum Products, and the combination of these products such as Groceries-Hygienic or Groceries-cosmetics products, etc. Distribution of the research population frame according to sector is demonstrated in Table 6.7.

**Table 12** Distribution of Research Population by Sector in 2018

| N  | Sector                                      | Frequency   | Percentage (%) |
|----|---|-------------|----------------|
| 1  | Groceries                                   | 315         | 13.7%          |
| 2  | Hygienic                                    | 423         | 18.4%          |
| 3  | Electronics and Home Appliances             | 118         | 5.1%           |
| 4  | Pharmaceutical and medical                  | 203         | 8.8%           |
| 5  | Cosmetics                                   | 223         | 9.7%           |
| 6  | Petroleum Products                          | 15          | 0.65%          |
| 7  | Pharmaceutical- Groceries                   | 5           | 0.21%          |
| 8  | Cosmetics- Hygienic                         | 16          | 0.69%          |
| 9  | Hygienic- Groceries                         | 963         | 42.28%         |
| 10 | Battery Distribution                        | 3           | 0.13%          |
| 11 | Distribution of Spare Parts for Automobiles | 8           | 0.34%          |
|    | <b>Total</b>                                | <b>2292</b> | <b>100%</b>    |

**Sources:** Adapted from National Distribution Association of Iran (SDPMS) (2019) and Association of Iranian Distribution Companies (APIR) (2019)

The distribution of research population by the sector in 2019 was mainly contributed by the Hygienic-groceries distribution sector that accounted for 42.28% of total research population followed by Hygienic distribution sector and groceries distribution sector accounted for 18.4% and 13.7% respectively. Nevertheless, Electronics and Home Appliances, Pharmaceutical and medical and Cosmetics contributed a slightly lower amount of 5.1%, 8.8% and 9.7% of the total amount of research population respectively (refer to Table 6.7). Notably, the table shows that Hygienic, Groceries and Hygienic- Groceries distributors are the main distribution firms in Iran.

#### 6.3.2.4 Contribution of Iranian Distribution Firms to Country's GDP

Distribution industry in Iran is one of the key infrastructures in economy and is very fragmented in the country. Iran's Distribution Industry accounts for 9.2% of GDP in 2019 has been gradually on increase in recent years according to the secretary general of the Association of Iranian Distribution Industry cited in Financial Tribunes (2020) and Import- Export Enterprises (2019) added that, Iran has nearly 2300 distribution firms that comprises of countrywide and provincial distribution companies as well as many of the firms in this sector operates regionally. This industry sector in Iran represents nearly 80% of the turnover of the sector in the country Import-Export Enterprises (2019). The countrywide distributors, some 40% are engaged in distributing pharmaceutical products. According to Financial Tribunes (2020), the national distribution industry had a turnover of over 1 quadrillion rials (24.26 bn Dollars) in March 2019. In Iran, E-Marketing currently has a 0.7% share in the country's GDP in 2019 and it is expected to increase to 3% in two years (TechRasa, 2020).

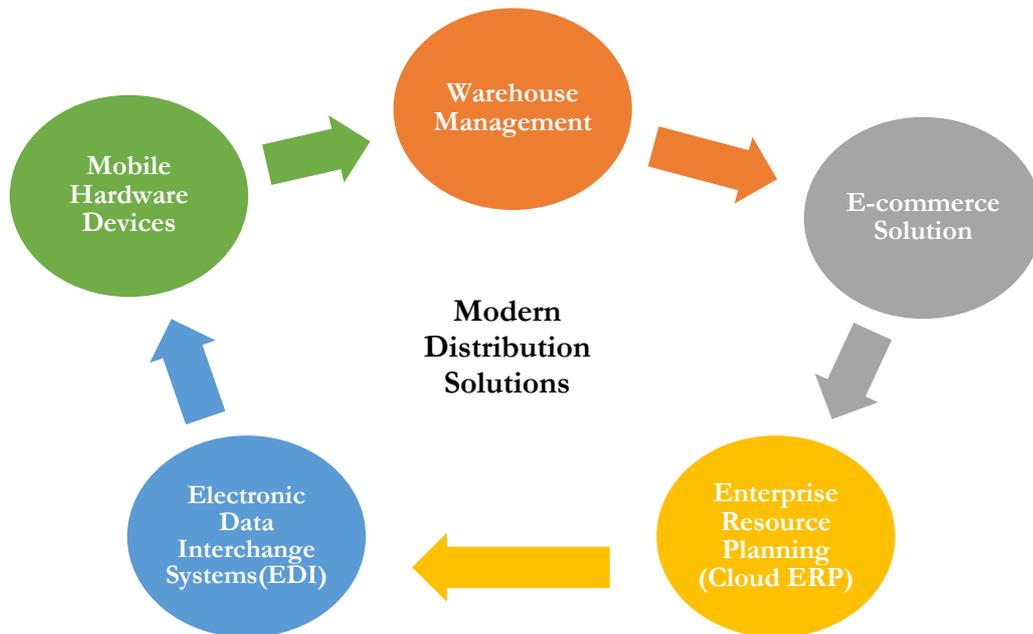
### 6.3.2.5 Adoption of New Technology in Distribution Industry

The distribution industry has made a lot of progress in recent years as explained previously in chapter two. Iran is not exempted from this advancement and has been experiencing quite a transformation in the past few years (Donyaye Eghtesad, 2020, and Pars Oghab, 2020). In the light of Iranian distribution industry records, there are various new tools that have been provided for expanding services and reducing the risk in distribution industry (Saman,2019, and Nordeatrade,2019). In the defined structure that is being implemented, all the cities of Iran are connected to the network, thereby increasing network capability, and increasing security, and defense capabilities in the cyber field will be operational. With the establishment of services of the third and fourth generation in the recent years, the traffic exchanges for increasing accessibility at the national level is provided and the mobility capability in this area is well distributed in distribution industry (2019).

Distribution organisations are applying for optimised logistics management to reduce delivery time, meet the changing needs of consumers and to provide value-added e-services to attract and maintain customers (Ieconomics, 2019). Distribution firms in Iran attempt to develop a favorable balance in the market in addition to maximise the profit margin and minimise the operation costs (Iranwatch, 2019). In the recent years, distribution industry in Iran adopting various E-Marketing tools. One of them is ERP software system known as enterprise resource planning which is strong in terms of recording and storing data. This is beneficial due to the large amount of information in many distribution businesses, most often there is a big gap between storing sales data and the ability to understand and utilise the data optimally (Pars Oghab, 2020). This software system assists distribution firms for essential procedures such as sales and financial documentation, delivery of products, payment confirmation, settlement with suppliers, and delivery of orders to retail stores are applied with the help of an integrated software (Pars Oghab, 2020, and ShirinAsal, 2019a). Also, processes like segmentation, positioning and targeting are well managed with precise system classification.

In a modern distribution system, companies need to have sales estimate from their distributors. Distribution firms also need related statistics from their direct clients such as supermarkets, chain stores. In the recent years in Iran many distribution firms have transferred the systems to Electronic Data Interchange (EDI) systems to adapt the new technology implementing tasks such as recording the orders from suppliers, getting orders, and purchasing of customers and

asserting delivery date though, where more sophisticated capabilities are needed. Some advanced distributors are incapable to accomplish and share information with manufacturers/suppliers, retailers, and other mediators in the sales chain. Distribution firms in Iran in recent years, develop the organisations, adjusted to technological changes for sustainable growth to reduce costs, improve more e-services and to take advantage of fast market changes (Golrang Pakhsh, 2019).



**Figure 6.6:** The Adopted New Technology Tools in Distribution Firms in Iran. **Source:** Iran Business Time (2020)

### 6.3.2.6 Iranian Distribution Firms within this Study

In Iranian firms, all stakeholders, from producers to distributors, wholesalers and retailers are looking for return on investment and profit. Throughout the Iranian distribution firms, techniques and models are on the rise and improvement day by day (Fayyaz and Azizinia, 2016). Using the most modern distribution methods, can not only increase the sales of companies, but also affect the popularity, recognition, and awareness of the product among buyers (Sharifi, Nesabi, and Yavarzadeh, 2018). According to (Iran Business Time, 2020), in Middle East, 59% of shoppers adopt digital stores, which are the same for Iran. In recent years, the advancement in technology and the improvement of Internet infrastructure in the country have led to an increase in the desire to buy online, especially among the metropolitan citizens. However, in comparison with many advanced countries, Iran still has plenty of room for improvement in the field of online sales as the traditional system of sales are more common in Iran and in many cities people's access to products is only through traditional markets and

traditional distribution systems (Alavimanesh, 2019). In these markets, it is still necessary for the distribution companies to first deliver to the retailers and then to the final consumers (Tehranimes, 2020, and Parsoghab, 2020). In this regard, large distribution companies located in the capital city, brought the shortest and fastest routes for the distribution of consumer products by providing the most modern distribution services in Iran, including GPS-equipped transportation vehicles (Shirinasal, 2019b). Iranian Distribution Companies define all its activities in the form of a comprehensive strategic management system and believe that for the provision and development of products, market research and identifying target audiences must be adopted in all aspects of the organisation (Moyragi, 2019, Mahdavi and Haghdoost, 2017). Given the need to distribute the market goods, it can be concluded that the survival of producers, depend on the distribution of their products through distribution channels.

#### **6.4 Iranian Distribution Firms and Adoption of E-Marketing: Exploratory Process of the Research**

This research extended the technique of data collection been adopted by El-Gohary (2009). In contrast, this current research varies regarding participants, industry, and country of origin by including the manager/top manager of distribution firms in Iran. This provides more focus in understanding, from the perspective of practitioners of specific sector (distribution firms). The Interviews been held with eight large distribution companies located in Tehran, the capital city that have branches in all 32 Provinces of Iran in various sectors including 1- Groceries-Hygienic products, 2- pharmaceutical products, 3- Edible Oil Distribution, 4- Hygienic Products Distribution, 5- Households and Electronics appliances distribution 6- Groceries-Hygienic- pharmaceutical-cosmetic products distribution, 7- Groceries Distribution, and 8- Cosmetic distribution.

##### **6.4.1 Research Samples of the Exploratory Interviews**

The research targeted a sample of 40 interviewees. The standard concept for sample size in qualitative phase is saturation, which is closely tangled to a detailed methodology, and the term is inconsistently applied (Malterud *et al.*, 2016). Qualitative analyses require a smaller sample size, and it should be large enough to achieve feedback for most or all insights. Obtaining most insights will lead to the achievement of saturation, and it occurs when having more participants to the study, does not lead in any further perceptions or new information. This been suggested by Glaser and Strauss (1967) for achieving a correct sample size in qualitative phase. Morse (2000) recommends that the minimum required number is between 30 and 50 participants, for

grounded theory, whereas Creswell (2009), Warren (2002, P:99 cited in Bryman and Bell, 2015, P:425) recommend that the minimum required number is between 20 and 30. There are no precise instructions when defining an appropriate sample size in exploratory study, but it can also be determined by the time allocated, the availability of resources, and the objective of the study (Patton, 1990).

Based on that, the selection of the sample size in this research is based on four justifications as follow:

First, as stated by (Glaser and Strauss,1967, and Corbin and Strauss 2008, P:143) there is no accurate and solid technique for calculation of the sample size in qualitative phase. Moreover, there is a general qualitative guideline proposing that, sampling could be continued as long as new information and knowledge been added, and to stop whenever there is no gaining of new knowledge, this called as saturation (Malterud,v2015). Thus, this research intended to conduct 40 interviews to reach a level of theoretical saturation as stated in Creswell (1998).

Second, as discussed by Patton (1990), due to the time limitation, the budget, and the distance between the researcher and the participants, the researcher will conduct 40 interviews (Bryman, 2016, P:45).

Third, as recommended by Morse (1994) and Creswell (1998), the minimum number of interviews for the research, to be published is between 20 and 30 participants.

Lastly, there are previous research that been conducted with the similar study area which has conducted the interviews between 10 and 40 interviews (e.g. El-Mnawi, 2005, Al-Somali, 2011, and El-Gohary, 2009).

The samples in this research, consists of 15 owners/mangers who has experience in E-activities and 15 top managers who have been involved with ICT and E-Marketing adoption in various levels and with different E-Marketing tools. The researcher selected the participants from the managers/owners and top managers of distribution firms purposefully through purposive sampling through “expert sampling” (Judgmental sampling). This method is preferred since the researcher has specific reasons that link to the research aim and objectives of the study (Tongco, 2007). Furthermore, the researcher’s judgment was used to select the companies. At the start, a list of all Iranian distribution companies in all business sectors were obtained from Iranian distribution association. To confirm the existence of firms on the list, and to solicit their

participation in the research, the researcher contacted via telephone calls to 40 potential firms for establishing their location and their willingness to contribute for the research. Thus, the chosen firms could be the representative of such explanatory information, as the contributing organisation required to be engaged in E-Marketing applications from the minimum level of adoption.

In that regard, 25 distribution firms' owner/manager databases were found through the association of distribution firms in Iran. Additionally, the researcher required 15 top managers including IT manager, Marketing manager, Finance Manager and Human Resource Manager who has been involved in the implementation and adoption of E-Marketing in Iranian Distribution firms or has experience in online activities in other companies. The distribution firms in the research samples have undertaken the online business strategies in their business activities. The focus of the study is on distribution firm as an industry sector and in eleven different sectors of distribution as discussed in section 6.3.2.6 since the study classifies the determinant factors of E-Marketing adoption across all distribution firms in Iran among 32 provinces.

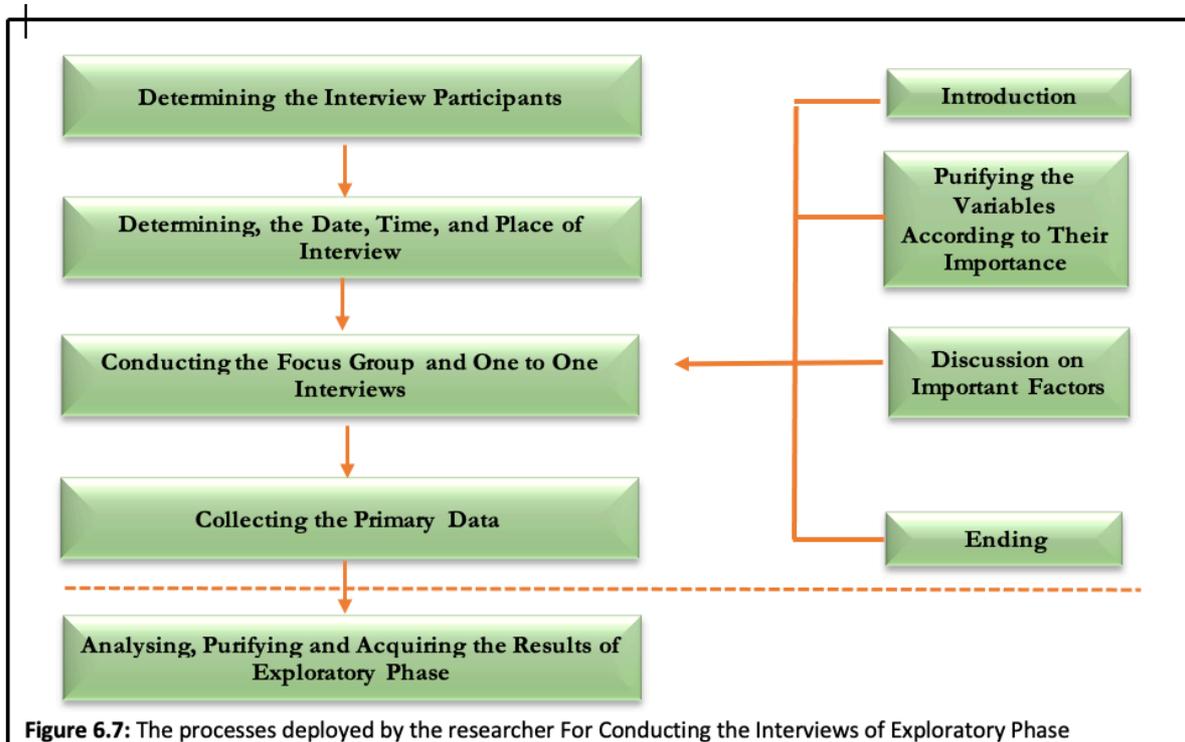
This study is justified by its importance in several areas. First of all, although E-Marketing research area has attracted attention from many researchers (e.g. Iddris and Ibrahim, 2015; Dlodlo, Dhurup, 2010; and Ahmed Sheikh, Shahzad, and Ku Ishak, 2016) Nevertheless, there are insufficient scholars have considered Distribution industry and E-Marketing adoption in developing economies, Secondly; to expand the research area relevant to E-Marketing adoption from an academic perspective approach, thirdly; to purify the Influencing factors of E-Marketing adoption that have been explored in the extant review of the literature, and lastly; to examine the relationship between the E-Marketing adoption and the influencing factors within the context of Distribution Industry.

The choice of industry allied with national development aims that are targeted at expanding the economy of the country through new technology innovations (IMF, 2020). The current study is looking exclusively at the distribution industry which is contributing to the Iranian national economy to provide in-depth understanding of E-Marketing adoption factors. Another justification is that Iranian distribution firms are in the process of developing and enhancing its telecommunication which will have an influence on the economic and industrial development in Iran (Association of Iranian distribution Firms, 2020). Finally, this study sheds light on

approaches and strategies, thus managers can develop more effective policies that improve the new technology development within the business strategies. Hence, the focus of the study is on a specific industry in different sectors of distribution to increase the validity of the results, and to identify the determinant factors of E-Marketing adoption across all Iranian firms within distribution industry.

#### 6.4.2 The Process of Exploratory Interviews

The interview is one of the key sources of exploratory process which takes in several forms. Most frequent interviews have open-ended nature in which the researcher can ask participants for the fact of a matter in addition to ask about the respondent's views about the context (Gillham, 2000, Gubrium *et al.*, 2002, and Bryman, 2016). Semi-structured interviews were developed by focusing on the aims and objectives of the current research and were adopted to purify the 43 variables that have been investigated through reviewing the extant literature. This study used both focus group and one to one interview to purify the factors investigated from the literature and to determine the important factors among the investigated factors in accordance with the steps as showed in Figure 6.7.



As illustrated in Figure 6.7, the interview process initiates with determining the participants. The number of participants in each focus group vary according to the size of the firm, availability of participants, the nature of the research problem, the experience of the research

in conducting such approach as a leader, and complexity of the context. While some studies discussed the number of participants within the focus group, for example a group of Six to eight suggested by Krueger and Casey (2000) however, Rabie (2013) discussed that the number of the participants need to be manageable and not disjointed. By this discussion, the researcher decided to conduct focus group with group of five to eight depending on the availability of the selected participants and their willingness for such interview due to its challenging nature which is consistent with previous studies in this field such as Rabie (2013), and Krueger and Casey (2000).

The Aim of the exploratory phase was to conduct focus group interviews with manager/owner and top managers of Iranian distribution firms. 40 participants were approached. The distribution firms' owners/managers and top managers were then contacted for research participation through E-mail and telephone calls. The key reason for the selection of the interview participants were their knowledge about E-Marketing. Out of this number, 12 participants were agreed for the focus group interviews and 16 agreed for having face to face interviews due to the unavailability of top managers and the limited time of the researcher for conducting the interviews. The participants were distributed as follows: twenty of the owner/managers and eight top managers agreed to participate in an interview, while the rest excused contributing due to their time limitation. In total, 28 final participants agreed to participate in the interview increasing the percentage of (70%) out of the targeted sample number. All participants were involved in E-Marketing adoption and implementation process. Interviews were scheduled for usually one to two hours. Thus, the interview process was through 4 stages:

First a set of semi-structured interview guide were developed based on 43 factors that have been investigated in review of the extant literature. The interview guide was then submitted together with other forms such as interviewee's consent form, participant information sheet and the overall aim and the strategy of the research to the university's research ethic committee for confirming that sufficient consideration has been given to ethical facets of the research, therefore, to decrease harm and issues to the research participants. Consequently, the research ethics was accepted prior to conduct the interviews.

Second, for ensuring of the clarity of the interview questions, 8 pilot interviews via telephone calls have been conducted with IT managers of 8 distribution firms located in eight different cities of Iran including: Tehran, Tabriz, Esfahan, Mashhad, Yazd, Alborz, Fars and Kerman.

This was beneficial for the researcher to make the questions clearer and more understandable if getting new ideas from the pilot interviews for expanding the interview questions resulting to in-depth and reliable results.

Third, after conducting the pilot interviews, the researcher implemented further initiative by requiring information from the association of Iranian distribution firms located in Tehran/Iran about the participating companies.

Fourth, prior to traveling to Iran for data collection, the researcher contacted all participants to set an appropriate time and date for conducting the interview.

In the day of the interview the researcher distributed participant's consent form to be completed before starting the interview, signifying that they were free to contribute or to withdraw from the interview also participant information sheet prior to conducting the interview. The consent form was written in both English and Persian language as the researcher estimated that most of the participants were conversant with Persian (See Appendix three and seven). The semi-structured interviews were conducted in September 2017 in 4 weeks' duration. During the interview process, the researcher conducted 16 face-to-face interviews (Fourteen Managers/Owners, Two IT managers) and 6 focus group interviews (Within 6 distribution firms and total of 12 participants) and all conducted in Persian/Farsi Language. Each interview took 60-90 minutes on average. And all interviews were recorded via voice recorder with the agreement of the interviewee so they can be analysed. During the interview, the researcher explained about the topic and the aim to the participants. Then the researcher handed the survey form to the participants and asked them to fill and determine which of the factors generated from the literature are important for the adoption of E-Marketing. Afterwards, the researcher discussed and conducted the interview with the participants and gave them the chance to expand and discuss on the subjects raised. The purpose was to create a convenient environment in which the respondents feel comfortable and encouraged to involve in the discussion. Within the one-to-one interviews the researcher initiated the discussion by asking questions about the selected important factors by the participant and expand the interview depends on the answer the participant gave.

When interview finished, the researcher asked the participant to give recommendations, comments, feedback, and discussions on the subject matter. Consequently, the interviews were

transcribed into the written materials and translated back into English language. Finally, the transcribed primary data were analysed manually through the following themes: 1- Profile of the participants and the organisations; 2- Factors influencing the adoption of E-Marketing in Iranian distribution firms; 3- Impacts of E-Marketing adoption on firm's performance regarding current and future financial and non-financial Marketing performance.

## **6.5 Results and Discussions of the Exploratory Interviews**

The preliminary step was to write up a descriptive summary for each of the interviews to “countenance for the unique framework of each circumstance emerge” (Eienhardt *et al.*, 2010), and to seize the diversity of distribution firms and interviewees' experiences on the process of E-Marketing adoption and implementation. This provides a systematic frame to analyse the E-Marketing patterns of distribution firms in the research sample. Within the survey, the participants were asked to determine each of the factors that generated from the literature are important for the adoption of E-Marketing. Furthermore, they were asked for the selected factors, to determine and classify their level of importance based on their knowledge and experience on a scale from 1 to 10. The Next section is the demography and descriptive analysis of interview participants and companies, followed by the results of the exploratory interviews.

### **6.5.1 Demography of Participants and Companies**

A total of 28 participants involved in the exploratory interviews. The interviewees were conducted as 16 one-to-one interviews with 14 owner/managers and 2 IT managers of 16 distribution firms. Also 6 focus group interviews were conducted (Focus group interviews with marketing manager and the owner/manager of 2 individual distribution firms), focus group interview with a human resource manager and the owner/manager of 2 individual distribution firms, and focus group interview with a finance manager and the owner/manager of 2 individual distribution firms). This totaled the interview number to 22 interviews with 28 participants. Table 6.8 shows the distribution of the participants by their position. As can be seen from the table, majority of the interviewees (20 participants) accounted for 71.44% of the total number of participants were the owner/managers of the distribution firms, whereas the rest (28.56 % of the total research participants) were the top managers including Marketing managers, IT managers, Finance managers, and Human resource managers (8 participants).

**Table 13** Distribution of Participants According to Position

| N | Position               | Frequency | Percentage |
|---|------------------------|-----------|------------|
| 1 | Owner/Manager          | 20        | 71.44%     |
| 2 | IT Manger              | 2         | 7.14%      |
| 3 | Marketing Manager      | 2         | 7.14%      |
| 4 | Finance Manager        | 2         | 7.14%      |
| 5 | Human Resource Manager | 2         | 7.14%      |
|   | <b>Total</b>           | 28        | 100%       |

Source: Developed by Researcher

Regarding to the age of the research participants, the range of age was between 31 and 61 years. Remarkably, there was no research participant interviewed age below 30 years and most of the participants' age was between 41 to 50 years old (35.71%). In contrast, the lowest frequency of participants' age was between 61 years and above (See Table 6.9).

**Table 6.9:** Distribution of Interviewees According to Age

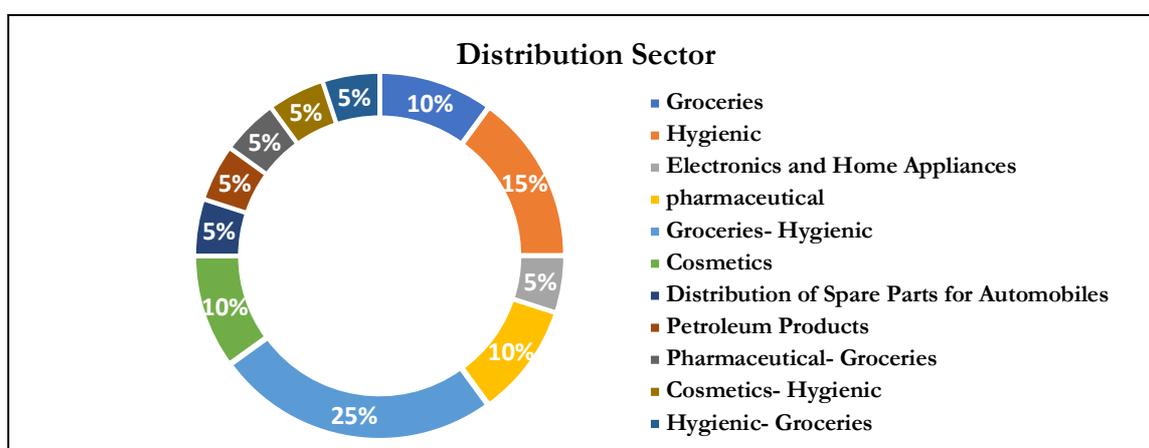
| N | Age                | Frequency | Percentage |
|---|--------------------|-----------|------------|
| 1 | Under 30 Years     | 0         | 0%         |
| 2 | 31 to 40 Years     | 6         | 21.42%     |
| 3 | 41 to 50 Years     | 10        | 35.71%     |
| 4 | 51 to 60 Years     | 8         | 28.59%     |
| 5 | 61 Years and Above | 4         | 14.28%     |
|   | <b>Total</b>       | 28        | 100%       |

Source: Developed by Researcher

Regarding the type of distribution, five of the study companies were involving in distribution of Groceries-Hygienic products (accounted for 25% of total research distribution firms), three of the distribution firms were involving in Hygienic sector (accounted for 15% of total research distribution firms), Two firms were in distribution of Groceries, pharmaceutical and Cosmetics respectively (accounted for 30% of total research distribution firms), and finally Electronics and Home Appliances, Parts for Automobiles , Petroleum Products, Pharmaceutical- Groceries, Cosmetics- Hygienic and Hygienic- Groceries distribution sectors, each shared 5% of the total research firms (one distribution firm per sector) (refer to Table 6.10 and Figure 6.8).

**Table 14** Distribution of Participants (Distribution Firms) According to Economic Activities

| N  | Sector                                      | Frequency | Percentage  |
|----|---|-----------|-------------|
| 1  | Groceries                                   | 2         | 10%         |
| 2  | Hygienic                                    | 3         | 15%         |
| 3  | Electronics and Home Appliances             | 1         | 5%          |
| 4  | Pharmaceutical                              | 2         | 10%         |
| 5  | Groceries- Hygienic                         | 5         | 25%         |
| 6  | Cosmetics                                   | 2         | 10%         |
| 7  | Distribution of Spare Parts for Automobiles | 1         | 5%          |
| 8  | Petroleum Products                          | 1         | 5%          |
| 9  | Pharmaceutical- Groceries                   | 1         | 5%          |
| 10 | Cosmetics- Hygienic                         | 1         | 5%          |
| 11 | Hygienic- Groceries                         | 1         | 5%          |
|    | <b>Total</b>                                | <b>20</b> | <b>100%</b> |



**Figure 6.8:** Distribution of Participants (Distribution Firms) According to Economic Activities

Source: Developed by Researcher

Moreover, Table 6.11 reveals the distribution of the survey participants according to the time of the distribution firms in business. As can be seen from table, the research found that majority of the survey participants (36.36%) were in business more than 21 years (8 Distribution Firms), followed by 27.27% that were in business 6-15 years (6 Distribution Firms), 22.72% were in business for 16-20 years (5 Distribution Firms), and finally 13.65% of the research firms were in business for less than 5 years.

**Table 15:** Distribution of the Survey Respondents by Age of the Companies

| N | Age                | Frequency | Percentage  |
|---|--------------------|-----------|-------------|
| 1 | 5 Years or Less    | 3         | 13.65%      |
| 2 | 6-15 Years         | 6         | 27.27%      |
| 3 | 16-20 Years        | 5         | 22.72%      |
| 4 | 21 Years and Above | 8         | 36.36%      |
|   | <b>Total</b>       | <b>22</b> | <b>100%</b> |

Source: Developed by Researcher

Table 6.12 demonstrates the distribution of the survey respondents by years of working within the distribution firm. From the interviews conducted, the research found that the majority of the survey participants (42.85 %) worked with their firms for 5-15 years (12 participants), followed by 39.28% worked with their firms for more than 16 years (11 participants). Remarkably only 5 participants worked with their firms for less than 5 years (accounted for 17.85% of total research participants).

**Table 16** Distribution of the Research Participants According to Years of Working within the Distribution Firm

| N | Age                | Frequency | Percentage  |
|---|--------------------|-----------|-------------|
| 1 | Under 5 Years      | 5         | 17.85%      |
| 2 | 5-15 Years         | 12        | 42.85%      |
| 4 | 16 Years and Above | 11        | 39.28%      |
|   | <b>Total</b>       | 28        | <b>100%</b> |

**Source:** Developed by Researcher

Size of the research firms are varying among the participants. As can be seen in Table 6.13, majority of research firms (54.56% of the total) fall into the category of the large distribution firms that has number of employees between 151-250 (12 participants), followed by 7 distribution firms in the category of medium distribution firms that has number of employees between 50-150 (with a percentage of 31.81% of the total number of distribution firms), and finally 3 distribution firms in the category between 10-49 number of employees as small firms (with a percentage of 13.63% of the total). Notably there was no distribution firm in the category of micro firms that has less than 10 number of employees.

**Table 17** Distribution of the Distribution Firms According to Size

| N | Age                            | Frequency | Percentage  |
|---|--------------------------------|-----------|-------------|
| 1 | Micro (Less Than 10 Employees) | 0         | 0%          |
| 2 | Small (10-49 Employees)        | 3         | 13.63%      |
| 3 | Medium (50-150 Employees)      | 7         | 31.81%      |
| 4 | Large (151-250 Employees)      | 12        | 54.56%      |
|   | <b>Total</b>                   | 22        | <b>100%</b> |

**Source:** Developed by Researcher

Furthermore, the research firms had different business scope. As can be seen in Table 6.14, majority of the research firms (86.36%) were working nationally (19 distribution firms) followed by 13.64% that were working both nationally and internationally (3 distribution firms). Notably, there was no distribution firm that was working internationally.

**Table 18** Distribution of the research Firms According to Business Scope

| N | Business Scope  | Frequency | Percentage |
|---|-----------------|-----------|------------|
| 1 | Nationally      | 19        | 86.36%     |
| 2 | Internationally | 0         | 0%         |
| 3 | Both            | 3         | 13.64%     |
|   | <b>Total</b>    | 22        | 100%       |

**Source:** Developed by Researcher

Regarding the level of education of the research participants, Table 6.15 indicates the distribution of the respondents by their level of education. This research found that majority of the participants (57.14 %) were initiated post graduate studies (16 research participants), 25% of the research participants were university graduates (7 participants), and five participants (17.85 % of the total) commenced postgraduate studies in research.

**Table 6.15:** Table of the Survey Participants by Level of Education

| N | Education                       | Frequency | Percentage |
|---|---------------------------------|-----------|------------|
| 1 | University Graduate             | 7         | 25%        |
| 2 | Postgraduate Studies            | 16        | 57.14%     |
| 3 | Postgraduate studies (Research) | 5         | 17.85%     |
|   | <b>Total</b>                    | 28        | 100%       |

**Source:** Developed by Researcher

### **6.5.2 Exploring the Factors Influencing the Adoption of E-Marketing of Iranian Distribution Firms (Results of the Qualitative Phase of the Study)**

By reviewing the extant literature, 43 determinants of E-Marketing adoption were investigated and classified into 2 main groups including internal and external factors of the distribution firms. Factors then categorised into five sub-groups including: 1) Environmental; 2) Individual; 3) Organisational; 4) Technological; and 5) Legal and Regulatory factors. The current study stance on justification by Rabie (2013), Shemi (2012), Rahayu (2015), Ohunmah (2015), Alrousan (2014), Aldwsry and Waheib (2016) in grouping the factors suggested that individual/managerial related factors affect the E-Marketing behaviour. Subsequently, they (ibid) classified the variables into four groups in their previous study including environmental, technological, organisational, and managerial/individual contexts. Moreover, the study expands the integrative models developed by Rabie (2013), Al-Somali (2011), and Rahayu (2015) by investigating the role of managerial/individual attributes with new variables adopted from MPCU and e-readiness elements adopted from PERM on E-Marketing adoption.

The aim of the exploratory phase is to purify the factors investigated from reviewing the literature resulted from the survey that filled by the participants and discussed as group and one to one in depth semi-structured interviews that conducted with manager/owner and top managers of Iranian distribution firms. The questions were designed to investigate the influencing factors of E-Marketing adoption by these distribution firms' manager/owner or top managers. Within the interview process 22 open ended questions were used to acquire the data needed in this phase. Each of these questions were allocated and designed to the factors resulted from the survey. Within the interview process, the interviewees were given a table comprised of 43 determinant factors of E-Marketing adoption and were asked to determine the important factors that has been generated from the literature review and classify them according to their level of importance based on scale. These important variables will be discussed in further detail in the next section.

Sukkar and Hasan (2005) explained that despite of the identified opportunities of adopting and employing an E-Marketing strategy, firms and individuals in the Middle eastern developing countries are still lagging and responding slow to the opportunities brought by new technology. On the other hand, Abou-Shouk (2012) argue that developing countries in comparing with developed countries are less prepared in terms of technology and human infrastructure to comprehend the benefits brought by new technologies. For that reason, it is extremely

important to study the determinant factors and drivers impacting the distribution firms' adoption of E-Marketing. These 43 variables were chosen from the literature review by bearing in mind that Iranian distribution firms are on the deprived end of the digital era and might miss the advantages of E-Marketing.

Moreover, in the literature there were various discussions on the classification of determinant factor of E-Marketing adoption. Even though the determinant factors of E-Marketing adoption can be classified to drivers and hindering factors, scholars in this context (e.g., Abou-Shouk, 2012, Rabie, 2013, Shemi, 2012, and El-Gohary 2009) classified the influencing factors into external and internal categories which are both appropriate and practical for this study and context. Therefore, this study, categorise the factors that might impact the adoption of E-Marketing of Iranian distribution firms, into external and internal factors.

Accordingly, for the aim of conducting this study, the investigated internal and external factors of E-Marketing adoption by Iranian distribution firms were classified into 3 sub-categories of: Environmental, Technological and Legal and Regulatory characteristics as external and uncontrollable factors, and Individual and Organisational characteristics as the controllable and internal factors. Next section will discuss the potential influencing factors for the adoption of E-Marketing of Iranian distribution firms

### **Environmental Characteristics**

External factors related to the environmental attributes increasingly have been considered by many academics and practitioners as one of the significant components of effective E-Marketing implementation (Rahayu, 2015; Rabie, 2013; Shemi, 2012; Ilin *et al.*, 2017; Abualrob, 2016; Osakwe *et al.*, 2016; and Van *et al.*, 2012). The external environmental related factors are uncontrollable within the firm's external forces. These factors are Government policy Support, External Pressures (Pressure from Competitors, and Industry), The Business Partner Affiliation, Economic Downturn, External Pressures (Pressure from Customers/Suppliers), National E-Readiness, External IT Support (Technology Consultants' Involvement), and Technology Vendor Support.

Out of total eight variables related to environmental characteristics that emerged from the literature review, and by analysing the interviewees' responds, three important factors were

concluded as the important factors that may influence the E-Marketing adoption of Iranian distribution firms. The important determinants of the environmental characteristics are including the business partner affiliation (21 interviewees); National e-readiness (25 interviewees); and external IT support (24 interviewees). Table 6.16 depicts the factors related to environmental characteristics that influence the E-Marketing adoption of Iranian distribution firms.

**Table 19** Determinants of the E-Marketing Adoption of Iranian Distribution Firms Related to Environmental Characteristics

| N | Determinants of Iranian Distribution Firms' E-Marketing Adoption   | Interviewees   | Frequency | %            | Remarks                     |
|---|--|--|-----------|--------------|-----------------------------|
| 1 | Government Policy Support (e.g., Financial Funding Opportunities). | A, B, C, E, F, G, H, I, J, K, M, N, O, S, T, U, V, W, X, Y, B2                 | 21        | 75%          | <i>Moderately Important</i> |
| 2 | External Pressures (Pressure from Competitors, and Industry).      | A, B, C, D, F, G, H, J, K, L, M, N, O, P, R, S, U, V, W, X, Z, A2              | 22        | 78.6%        | <i>Moderately Important</i> |
| 3 | The Business Partner Affiliation.                                  | A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, W, X, Y, Z, A2, B2 | 26        | <b>92.9%</b> | <b>Important</b>            |
| 4 | Economic Downturn.   | A, B, C, D, E, F, G, I, J, L, M, N, O, P, Q, S, T, U, W, X, A2, B2             | 22        | 78.6%        | <i>Moderately Important</i> |
| 5 | External Pressures (Pressure from Customers/Suppliers).            | A, B, C, D, E, G, H, I, J, L, N, O, P, Q, R, S, T, U, V, W, X, Y               | 22        | 78.6%        | <i>Moderately Important</i> |
| 6 | National E-Readiness.  | A, B, C, D, E, F, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, W, X, Y, A2, B2    | 25        | <b>89.3%</b> | <b>Important</b>            |
| 7 | External IT Support (Technology Consultants' Involvement).         | A, B, C, D, E, F, G, H, I, J, L, M, N, O, P, Q, S, U, V, W, X, Z, A2, B2       | 24        | <b>85.8%</b> | <b>Important</b>            |
| 8 | Technology Vendor Support.   | A, B, D, E, F, L, N, O, P, Q, R, T, U, V, W, X, Y, B2                          | 18        | 64.3%        | <i>Moderately Important</i> |

**Source:** Developed by researcher

**Note:** In this study, an important factor is a factor with frequency 80% to 100% of total research respondents' consensus, Moderately Important is a factor with frequency 51% to 79%, and less important factors is a factor with frequency between 0% to 50%. The proportion is adopted from the research conducted by Ahmad (2014, P.179) and Pallant, J. (2016).

### The Business Partner Affiliation

There was a consensus among 26 interviewees (92.9%) on the characteristic of business partners (suppliers and customers) impacting the adoption of E-Marketing by Iranian distribution firms. 26 companies' adoption of E-Marketing for their business have been grounded in the vision and affiliation of the organisations' suppliers and customers. Most of the research companies are highly dependent on their business partners for implementation of E-Marketing within their firm and improving the strategies. Business partners within the

distribution industry consists of suppliers (manufactures) and customers (retailers/wholesalers), not the end-users (consumers).

*“We do not deliver the products to the end-users (consumers); we are delivering to the customers (Stores, Super Markets, Hyper markets, etc.). We have 110’000 of guild units which we distribute the products to them, and they deliver to the end-users. In Iran, the distribution system is capillary system, and the delivery process is in store level not to the end user” (Company A).*

Using 26 interviewees as representative examples from these companies, Company B is highly dependent on the suppliers and keep improving the systems in adaption with their suppliers whereas their customers have not accepted the new technology systems and still dependent on the traditional methods. Company K is using search engine marketing tools and use SEO tools for optimising their website to be on the first page of Google and to be above their competitors’ link. Company T has extranet network, which is accessible by its suppliers and customers (retailers) as the affiliate groups within the organisation.

*“Our suppliers are using computer systems and we are receiving their orders via a professional software which is a modern developed American software. Some of our suppliers are not in Tehran the capital, this prevents us to travel to the manufactures and getting the orders.it actually decreased the travel costs remarkably and gained us new suppliers” (Company C).*

*“Yes... our attempt is to be able to ease the way we sell our services/products to the retailers and to cut the distances as much as possible, which we already did it by adoption and implementation of E-Marketing. Our clients are all busy and want to do the business as quick as possible. We are not selling products, but we are selling differentiation. Our differentiation from the other distribution firms is, to easily give services to our retailers and to be adapted to their systems...” (Company D).*

*“Our suppliers have access to internet resources, and we communicate to them with extranet network for getting and receiving their orders however our customers which are the retailers, supermarkets, hypermarkets are not equipped with upgraded IT infrastructure and prefer to follow the traditional method ...they just know us as our brand name, and we are having new customers by our reputation. So, we optimise our websites and upgrading only for our suppliers” (Company F).*

*“We are affiliate to our suppliers’ online strategies, if they decide to add new technology strategy, invest on the infrastructure, and develop their systems, we also invest and adopt ourselves to them...their insight maybe that they are the manufacturer and they just need to do the e-marketing section and we just focus on distributing their products. However, we are doing the capillary distribution and we reach to the customers more than them and distribution firm can be more successful than the manufacture” (Company Q).*

In contrast, four interviewees disagreed with the business partner affiliation as an influencing factor of adoption and implementation of E-Marketing of Iranian distribution firms. Company X emphasised on the fact that they are only a middleman and they do not own any brand name. They are important as a distributor and delivery but not the brand name. They believe that implementation of E-Marketing tools is something that need to be done by the suppliers, yet they are attempting to be a media for their suppliers for online sells of the suppliers’ product, However, they are not looking for creating brand. Company Y also not dependent on customers when regulate the new technology strategies such as advertising. The customers not eager to visit the websites but prefer the company visit them regularly with different offers. Company A2 is not dependent on the customers/suppliers. “We cannot force our suppliers to do the online selling, I can change the marketing strategies in a way I want but I cannot force them to do, also by the time the customers visit our website and go online they would have many visitors that they won’t even find time to come online and find us! “Finally, Company B2s online strategy responsibilities are with the manufacture. The company own website and have portal and use the website just to introduce their products to the customers and the telephone number and addresses. However, they have their own intranet network within the employers and other branches”.

Although majority of previous scholars, focused on the environmental characteristics (e.g., Wahieb, 2016; Rahayu 2015, and Rabie, 2013), few studies found precisely related to the impacts of the suppliers/customers’ affiliation on the firms’ decision to adopt E-Marketing. This research found a consistent result on the business partner affiliation affecting distribution firm’s decision to implement E-Marketing with previous studies. For example, Shemi (2012) found business partners who are the suppliers/customers of the firms have high contribution to the adoption of E-Marketing among organisations. The study found that business partners’ (customers/suppliers) demand is significant variable that requires the firms for the adoption of

E-Marketing. On the other hand, this factor does not limit the firms' adoption if their business partners do not value strategic E-Marketing tools.

Based on the previous research, this perspective of environmental characteristics has never been tested empirically in the E-Marketing adoption of Iran and in distribution context. Hence, this research considers examining the factor statistically in the next phase of the study.

### National E-Readiness

Majority of the research interviewees (25 interviewees) continually highlighted that National e-readiness effectively contributes to the implementation of E-Marketing of their businesses. 25 companies' adoption of E-Marketing for their business have been based in the shadow of electronic readiness of the country. National e-readiness not also contains the physical and transportation readiness of the infrastructure within the country from the bandwidth, but also contains the availability of the related IT skills within the country (Bui *et al.*, 2003). However, according to the literature, the new technology diffused fast in the developed countries, and slowly in Middle Eastern developing countries which create a digital gap within internet usage between developed and developing countries in Middle East (Al-Somali,2011).

*“In Iran more than 40 million of the population has accessibility to internet and smartphones, the population is young and it's the generation of the youths which have different thoughts, skills in comparing to 50+ generations. Our country is so ready for the new technologies” (Company A).*

*“We have extranet network within the organisations, and we are in continuous contact with our supplier/customers. The country's infrastructure is developed remarkably in the recent years, and we never had any issue in this matter. To be honest, not also the connections are amazing but also our external environments is quite ready for the new technology. Sometimes we do the changes and we do not need to train them. They already know what is what...and how it works” (Company D).*

*“There is a high national e-readiness and there was a remarkable growth and development in that sense however it's not still enough for us to lead the basis of our business on online marketing solely” (Company J).*

*“The country has both the electronic readiness and the business culture, made the adoption and implementation beneficial for us as the organization; this makes most of the firms toward the adoption and online activities” (Company M).*

Likewise, Company Y, Company B, and Company E have the same opinion and believe that this factor is a significant factor for firms as they have both customers/suppliers with high IT knowledge and customers/suppliers reliable on traditional method of marketing. This makes confliction for the firm; the organisation has electronic readiness whilst some customers have high IT knowledge and some against the new technology innovations. This has been stressed by company E, that they have high e-readiness in terms of infrastructure and workforces whilst the external environment (customers) not ready for the new IT innovation and this turn to “the face-to-face marketing policy” of distribution firms in Iran.

The arguments on the national e-readiness in the process of E-Marketing adoption is consistent with previous studies. For instance, the study conducted by Al-Somali (2011), found national e-readiness vital in the process of E-Marketing adoption of new adopted companies in Saudi Arabia. Consequently, Oxley and Yeung (2001) based on their results, specified that, even though the most noticeable hindrance for the development of E-Marketing in developing countries is the absence of essential physical infrastructure the IT skills, the e-readiness of the customers is also crucial. In the countries with good infrastructure, and high IT knowledge, adoption of E-Marketing is more marked (Tan and Teo, 2000). Conversely, the previous scholars were conducted the research on firms in the developed countries and notably most of the studies were conducted in qualitative-exploratory approach. Thus, this current research will undertake further stage by examining the factor statistically on the Iranian distribution firms’ context.

### External IT Support

The research found the external IT support is important in the adoption and implementation of E-Marketing process. There was a consensus among 24 interviewees (85.8%) on the characteristic of external IT support affecting the adoption of E-Marketing by Iranian distribution firms. 24 companies’ adoption of E-Marketing for their business have been grounded with the participation and involvement of external technology consultants.

Rapid changes in the technology are making the organisations difficult to manage and learn the increasingly multifaceted new technology systems (Rahayu and Day, 2015). As the new technology applications are rapidly changing, the organisations relying on IT supports and consultants to solve the practical difficulties faced by the firm, develop the company's performance, and to provide further resources to cover the necessities such as recommending appropriate computer hardware or software etc.

*"We are using a software in our company which is a sub-system that is using by all, the internals and employees within the firm. We bought that software (System –Logo) from Turkey and we are paying (on their currency) for the software annually. There are IT experts are coming to the organisation and visit the firm annually for updating the systems" (Company A).*

*"We have training sessions for our employers on the monthly basis getting it from the external IT consultants 2-3 days a month...they train the employees on the software and new technology systems. All our branches have these training sessions and have discussions and training on online marketing and the usage of the software on their job. We are assessing these sessions and always sending a report for the manager. I mean we always need to have the External IT experts in our organisation, there is always something new and we don't have time to learn and to deliver to our employees, someone need to teach us to save time." (Company C).*

*"Upgrading and changing and adding a new technology system in our organisation is performed in various ways. If, we change and amend the systems, we train our employees how to perform with a new system, if the changes be through the outsource system, it will be trained and taught by the expert and consultant from outside of the company by running training sessions and explaining and practicing it within the seminar. Therefore, it is really varied, and depends on what we need and what we want. Sometimes our internal IT expert can perform our requirements and sometimes we have to get the support from the outside sources...So slowly the systems here is changing into the combination of both of getting support from internal and external IT experts" (Company E).*

In contrast, three interviewees disagreed with the involvement of IT consultants for any purpose whether to train or to upgrade and changing the strategies as an influencing factor of adoption and implementation of E-Marketing of Iranian distribution firms. For example, company Z and company N, still on usage of the traditional systems, which is through help file documents within the firm with their own training team and the manager; even if there is a need for training, they do it through their own internal IT experts.

*“All we care about is to increase the sales and whatever we train is spins around the sale. We also have a team consists of 5-6 members that helped for the execution of ERP systems, they set up the systems in all the branches and they trained the staffs themselves. Now we have a settled internal system in all our branches, so there is no big change in the recent years, maybe a new upgrading be within the systems and software, there is no need for training, all they need to do is using the help files to learn the new update” (Company Z).*

This study found a consistent result on the involvement of IT consultants within the organisation, affecting distribution firm’s decision to implement E-Marketing with previous studies. For example, Somali (2011), MacGregor and Vrazalic (2006) and Thong (1999) found the external IT support to be significant factor for the adoption of E-Marketing in all levels of adoption studies.

Conversely, based on the previous studies, this perception from the external environmental characteristics has never been tested empirically in the E-Marketing adoption of Iran, and Iranian distribution firms’ perspective. Therefore, this research considers investigating this factor statistically in the quantitative phase of the study. They (ibid) emphasise that the role of the IT consultants is more important than the management team in implementation of E-Marketing tools as they can help the organisation to boost the confidence of the employees by training and extra support for enhancement of their missing skills and expertise. Based on the interview results and supported by the previous scholars, this study will further examine the relationship of external IT support with the E-Marketing adoption processes of Iranian distribution firms in more generalisable approach that contains more quantitative data analysis.

### **Individual Characteristics**

Factors related to individual characteristics have been considered by academics and practitioners as one of the important components of effective and successful new technology adoption and implementation (e.g., Rabie, 2013; and Shemi, 2012). These individual factors that are related to the individual’s characteristics and behavior toward the new technology can be considered as the controllable factors. For the aim of conducting this research, only some of these individual factors will be investigated. These factors are Decision Maker’s Age, Decision Maker’s Education Level, Normative Social Influences, Trust, Owner/Manager Support (Involvement), Gender, CEO/Owner’s Innovativeness, Intrinsic Motivation, Extrinsic Motivation, Job Fit with PC Use, Long-Term Consequences of PC Use, and Perceived Ease of Use.

Out of 12 variables discovered regarding individual characteristics, five were found having a consensus of research respondents' more than 80%. The five important determinants with regards to individual characteristics are Normative Social Influences (92.9%); Owner/Manager Support (92.9%); Perceived Ease of Use (85.8%); Job Fit with PC Use (82.2%); and Long-Term Consequences of PC Use (82.2%). Table 6.16 shows the factors related to individual characteristics that influence the E-Marketing adoption of Iranian distribution firms. Each factor will be discussed in detail.

**Table 20** Determinants of the E-Marketing Adoption of Iranian Distribution Firms Related to Individual Characteristics

| N  | Determinants of Iranian Distribution Firms' E-Marketing Adoption | Interviewees  | Frequency | %     | Remarks              |
|----|--|---|-----------|-------|----------------------|
| 1  | Decision Maker's Age.  | B, C, E, J, L, N, P, Q, R, T, U, V, W, X, Z, A2                               | 16        | 58.2% | Moderately Important |
| 2  | Decision Maker's Education Level.                                | B, E, I, M, N, O, Q, R, S, T, U, W, X, Y, B2                                  | 15        | 53.6% | Moderately Important |
| 3  | Normative Social Influences.                                     | A, B, C, D, E, F, G, H, I, J, K, L, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, B2 | 26        | 92.9% | Important            |
| 4  | Trust.   | A, B, D, E, F, I, J, L, N, O, Q, S, T, U, V, W, X, Y, Z, B2                   | 20        | 71.5% | Moderately Important |
| 5  | Owner/Manager Support (Involvement).                             | A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Z, A2 | 26        | 92.9% | Important            |
| 6  | Perceived Ease of Use.   | A, B, C, D, E, F, G, K, L, M, N, O, Q, R, S, T, U, V, W, X, Y, Z, A2, B2      | 24        | 85.8% | Important            |
| 7  | Gender.  | A, B, E, F, H, I, J, L, N, V, W, X, B2  | 13        | 46.5% | Less Important       |
| 8  | CEO/Owner's Innovativeness.                                      | A, B, C, D, E, L, M, S, T, U, V, W, X, Y, Z, A2, B2                           | 17        | 60.8% | Moderately Important |
| 9  | Intrinsic Motivation.  | A, B, C, D, E, G, K, L, M, P, Q, R, S, T, V, W, X, Y, Z, A2                   | 20        | 71.5% | Moderately Important |
| 10 | Extrinsic Motivation.  | A, B, C, D, E, G, H, J, K, N, Q, T, V, W, X, Y, Z                             | 17        | 60.8% | Moderately Important |
| 11 | Job Fit with PC Use.   | A, B, C, D, E, F, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, A2, B2         | 23        | 82.2% | Important            |
| 12 | Long-Term Consequences of PC Use.                                | A, B, C, D, E, F, G, H, I, J, K, M, P, Q, R, S, U, V, W, X, Y, A2, B2         | 23        | 82.2% | Important            |

**Source:** Developed by researcher

**Note:** In this study, an important factor is a factor with frequency 80% to 100% of total research respondents' consensus, Moderately Important is a factor with frequency 51% to 79%, and less important factors is a factor with frequency between 0% to 50%. The proportion is adopted from the research conducted by Ahmed (2014, P.179) and Pallant, J. (2016).

## Normative Social Influences

*“Everything influences us in adoption of new technology tools; but the main reason for us to adopt this new technology tool is that the future world will be on the basis of E-Marketing, Hence, there will be no other solution for the survival” (Company J).*

The study found the Subjective social norm as a very significant factor that influence the manager’s decision for adoption of E-Marketing. The research found a consensus of 26 (92.9%) interviewees on the impacts of normative subjects on their E-Marketing implementation process. This factor found to be an important factor that affect the CEO/Manager’s decision process for adopting and implementation of E-Marketing tools. This factor is the perception of CEO/manager or any decision maker of the firm from the important people or other competitors’ behaviour, which in turn assumed as the influences from the internals’ expectation and externals such as the competitors, customers, or suppliers (Grandon and Pearson, 2004). For example, company A was the influencer for its competitor, and it was a leading company in its market that inspire other competitors to adopt E-Marketing tools.

*“When we started to combine our marketing strategies with online technology tools, we were the first company whom risk adopting and using e-marketing tools as the basis of all marketing activities of the firm internally and externally.so we became a leader in our own market. What I am talking is the FMCG sector” (Company A).*

Company E believes that the external environment such as the customers/suppliers are the main indicators of inducing to firms of what society needs. The company described that what convinced them for implementation of E-Marketing tool were their own suppliers and customers but not the competitors. This process is two-sided as they also influence their customers’ decision for using the new technology tools through social media and face-to-face.

Company H and Company, I stated the normative social influences as one of the main hindering factors for adoption and implementation of new and modern E-Marketing tools. They have mentioned about the lack of culture in usage of IT tools among the customers and that is the fact that stops them to develop the firms’ IT infrastructure and to improve the marketing strategies.

*“We have a cultural problem when we talk about E-Marketing and its different tools. In our country, the normative social influence can be as a hindering factor for us to adopt E-Marketing and its tools. The nature of our job makes us travel city by city to meet the customers and there are still many cities that equipped with high internet facilities but still people have not accepted the fact of doing the actual business through online platform. Unlike customer, our competitors and suppliers have high impact on us for implementing the latest online marketing tools and strategies.so still we are on high conflict, when we are in this context” (Company H).*

*“In Iran, firms within the same sector, have high impact on the other competitor’s decisions and strategies. For example, one company improve its marketing strategies by adding a new technology system within the company. Other companies within the sector try the same technique once they hear. They try to compete with others and improve the same technique into a better one. And this is how it works in our industry or any industry in Iran” (Company T).*

Company U, S, Z and Y similarly are influenced from its competitors within the market and insists on the high influence of the competitors in changing their marketing strategies.

*“There are times that we change our tactics on monthly basis, and we constantly pay for SEO tools to be the first firm in the search engines when customers search online. We have to do that; Competitors are so conscious. We have to be as well...if not then we will be behind...competitors are out big influencers...” (Company U).*

Company S added that they are influenced through all external environments including competitors, customers, and suppliers. This company highlighted that 10 years ago all companies within the sector were into traditional method of marketing but after establishment of “Digikala”, they started to shift the strategies into cyber space, although in the beginning they believed that this company will not be successful.

*“Customers are our main influencers for adoption and implementation of E-Marketing tools. People nowadays, tend to be online users, do their everyday activities online and their needs be fulfilled through internet. This is increasing day by day and the culture of using the IT tools is changing dramatically in a positive way. I cannot say how this will be within 5 years but I can say that companies are adopting this just not to fall behind from their other competitors” (Company B2).*

In contrast, Company V, F and G believed that this factor is not as important as the other factors in influencing their decision for adoption and implementation of E-Marketing.

*“If we talk about the social influences from our customers and competitors within our industry, they do not have main impact on our decision for E-Marketing implementation and we still have the combination of both online and offline methods. However, if we talk about the market, there are firms that doing e-commerce like “Digikala” and so many more that only focus on e-commerce not any other tool and they are actually successful and have a big market share” (Company V).*

*“We are adopting because we have to. Most of our competitors adopted and implemented different E-Marketing tools and so we are doing as well. We don’t think of the benefits, we have to do, unless we stay behind” (Company G).*

The discussion on the essential capability of normative social influences in the process of E-Marketing adoption are consistent with previous studies. For Instance, the study conducted by Jamali et al. (2015) found that in organisations’ final decision is under CEO’s control, E-Marketing adoption and implementation is affected on his/her perception from the external and internal environment. The previous research conducted precisely on the firms in developing countries were conducted on exploratory approach. Thus, this current study will undertake further step by examining the variable statistically on the Iranian distribution firms’ context.

### Owner/Manager Support (Involvement)

Based on the conducted interviews, the study found there was a high duplication on emphasising the importance of management’s support by 26 interviewees (92.9%). Owner/Manager support could be related to the adoption decision or the changes within the marketing strategies that they must take, the undertaking financial commitments relate to new technology system, the new IT infrastructure whether the CEO/Manager considers the adoption, their appreciation toward the new technology and new technological developments. This is because the Owner/Manager is the full decision maker within the organisation and full driver of all business responsibilities within the organisation. The challenge starts when the manager/owner refuse and is reluctant to push the boundaries for new technology developments particularly the traditional manger/owner where mostly slumbers and refuse the benefits that this phenomenon could bring to their organisations. However, a vibrant

manager/owner transform the firm's objectives to grow the company further against the competitors (Karakaya and Shea, 2008).

*“The vision of the previous manager was to change the whole IT infrastructure of the organisation and connect the internal and external environment of the organisation through the new technology system as long as adopting the new IT facilities. However, the new manager is resisting toward the new technology implementation. 10 years ago, the need for the E-Marketing tools was not essential as the need today. The previous manager had a long-term perception toward the new technology adoption although the manager desired to change the whole marketing strategies but those time the external environment were not ready and not accepted to use the new IT innovations, not only the customers/suppliers but also internal environment was also not ready to adapt with new technology system and there was a high resistance on that time, thus manager did not implement new IT innovation. However, now there is a receptivity from both external and internal environment but the manager not supporting the organisation with new IT ideas and refuse to implement new and updated technology systems” (Company C).*

*“We need the government support, legal infrastructure, and develop the culture in using the new technology. However, with the current external environment, internal factors are more supportive; this contains manager/owner support” (Company A).*

Company H, E, K, R, S, U, and V agreed that their manager/owner highly support the implementation of new technology systems, welcome the new innovative IT ideas from the employees, allocate a fixed amount of marketing budget annually for online activities, and for upgrading the IT infrastructure of the organisation.

*“If the owner/manager has the receptivity toward the E-Marketing adoption and implementation and support the new ideas and online marketing strategies, that automatically leads the whole organisation toward the acceptance of the new system” (Company U).*

Conversely, Company T and Company X emphasis on the characteristic of the manager/owner on responding to the risks. For example, Company T 's manager has not responded to the risk and new ideas where the company's previous manager was responding to risky innovative IT ideas and has receptivity toward changes.

*“Our previous manager was very risk taking for new changes within the organisation, he stood against the opponents of new IT systems and without considering the outcomes and consequences added new technology systems within the organisation to all branched over the country and*

*mentoring all of them. He allocated part of the marketing budget on upgrading the IT systems for a better sale. However now, it is what it is, remained from the changes by the previous manager. New manager supports only on bringing IT experts for updating the systems from time to time” (Company T).*

This study found that the finding is in consistent with previous research in regard the impact of Manager/Owner support on the E-Marketing implementation of firms in developing countries. For example, research conducted by Rahayu (2015), Sila (2013), and Duan *et al.* (2012) found that manager/owner support has significant impact on adoption of new technology innovation. They (*ibid*) state that the management/owner support not only related to having a preliminary provision from the internal resources but also related to the manager/owner motivational characteristic, as it is vital for the firm to have motivated manager/owner. This demonstrates the awareness of the manager/owner from the potential of new technology tools. They (*ibid*) stated that resources demonstrate the ability of the organisation for adoption of new technology tool, thus financial support from manager/owner determine the level of the E-Marketing adoption within the organisation.

On the other hand, the motivational characteristic of the manager/owner shows how much the manager/owner ready to adopt new technology such as E-Marketing and this support from the manager/owner would help to overcome other barriers that hinder the adoption and implementation process. Although the study found a strong impact of the manager/owner support considered in the behaviour of E-Marketing adoption of Iranian distribution firms in this study. However, future studies need to approve the results in more depth and generalisable technique through conducting the quantitative phase to test the role of manager/owner support consideration on Iranian distribution firms’ decision to adopt E-Marketing, and as the study conducted was limited in regard of the sample size.

### Perceived Ease of Use

Based on the results of the conducted interviews, the study found that there was a great repetition on stressing the importance of perceived ease of use from the efforts by 24 interviewees (85.8%). PEU reflects on the perception of the individuals such as employees, top managers, and the manager/owner from the IT innovations and new technology tools and how much the new adopted system within the firm is free from the efforts (Davis *et al.*, 2001). The concept of ease of use, could return to how easy is to understand, use and learn the new IT

system within the firm. It is recognised that this factor is one of the main influences on the individuals' attitude toward their usage (Shin, 2008).

There were 24 companies believe that E-Marketing and its tools are easy to use and are free of efforts.

*“Technology changes has helped us a lot and did a massive change in our marketing strategies. 10-12 years ago, we haven't got these systems that we are having now, we needed a PC, and we needed to search for the information within the PC. Now we have smart phone with our own software, I have my phone everywhere with me and I can control my work from anywhere with my phone. This is a big Transformation. I am living with my phone, and I have my phone 24/7. I can lead my work easily without any need for PC. It is so easy. it changed the entire system in our organisation. (Company E).*

*“Our employees are satisfied from the Modern internal modern technology that we adopted and believes that the new tool made a big transformation in their job, and it increased their job satisfaction. Few years ago, we only had “Yahoo” and “Gmail” as the only way to communicate internally, now we have outlook and intranet to connect within the employees, they easily transfer the files and connect to the other branches in seconds with no effort “(Company V).*

Company O and Company M, however, have difficulty in the customers' side. There is a modern and updated intranet system within the organisations, the staff easily use the new system to do the tasks, however, the customers find the new technology tools, complex and hard to use and refuse to adapt within the organisation's modern system. Therefore, they believe that there is a still way to go, to make the external environment to aware of how easy and free of effort is the new technology innovation.

*“There is still the traditional way of thinking goes around, believe that it is hard and costly to use the new technology tools. Most of the time our customers not aware of how much they are in debt and how much they are in credit, and this led to conflicts between the organisation and the firm. So, if they make them aware of how easy and free of effort is the new systems of the organisation, all these problems will be solved” (Company O).*

The results are consistent with previous studies on the impact of the perceived ease of use from IT innovations to firms' adoption of E-Marketing. There is many previous research have explored the important role of the individuals perceived ease of use of new IT tools on E-Marketing adoption of firms, including Abdullah et al. (2016), Cho and Sagynov (2015), Alam,

S. et al. (2009), Dlodlo and Dhurup (2013), and Azam and Quaddus (2013). Although plethora of previous scholars have focused on this factor, the literature in the context of Iran as a Middle Eastern developing country remains scant. For example, Akbari and Pijani (2013) found the positive impact of perceived ease of use of the new technology tools on adopting of ICT among Iranian firms. They found that using the ICT, tools are free of effort, and it reflects the potential difficulty for the adopted organisation to use ICT tools if it needs to be learnt to be employed. However, since the method of the study was a qualitative approach by interviewing experts, there is a need and opportunity to conduct further study on more generalisable method.

### Job Fit with PC Use

*“We have developed a customised application for tablets, Mobile phones and laptops 3 years ago for our customers. We are in contact with our customers 24/7 and we are getting the orders through this application. This application was developed through our IT team. We visited our customers all over the country and installed the programme for them. This application was only designed of our customers not for the suppliers. Doing the business through the application was so easy and saved time for the customers. This developed a common language between our retailers and us. We got very good feedback since we developed this software, not only it increased our employees’ job performance but also our customers” (Company D).*

*“Our employees feel the difference between when we were just a traditional organisation and now that E-Marketing tools is the main structure of the firm. They believe that, since we have adopted, and performed E-Marketing not only employees’ job performance increased but also there is an overall satisfaction on all employees for their job itself. The new technology system increased the firm’s satisfactory level because they reach to the result and outcomes faster than the expected” (Company O).*

Job fit with PC use is one of the important factors in assessing the intention of Iranian distribution firms to adopt E-Marketing for their businesses. Out of 28 of the respondents, 23 research participants (82.2%) agreed that using E-Marketing tools enhancing their job performance, helping employees to gain better information for decision making, and decreasing the time required for achievement of their task. Moreover, the adoption of E-Marketing for their businesses has been resulted to improvement of their job performance, the individual’s motivation, and opened new insights and innovations.

First, E-Marketing enhance job performance of individuals within Iranian Distribution Firms (Company D, F, and O). Second, adoption of E-Marketing tools decreasing the time required for completing tasks. The company S proffered that this new technology highly enhanced the employees' job performance and their motivation since added intranet network with the firm's infrastructure. However, each of the new technology innovations consumes much investment. For example, company W remains with the same technology system within the organisation after 5 years since they do not have enough budget to allocate to a new technology tool. Therefore, the failure of developing a new technology system or strategy makes the company slow in accelerating their growth within the market.

The interview results on the job fit with PC use is in consistent with previous studies. For example, Cooper and Zmud (1990) found in their study that adoption of ERP systems, increase the task completion. E-Marketing not only is important for Iranian distribution firms to diversify their business but also has high impact on increasing the job performance of the individuals. Since the implementation of various E-Marketing tools, individuals can communicate with themselves internally and with their clients immediately and establish the business trades without travelling.

Based on the findings and supported by the previous literature, this research will investigate the relationship of the job fit with PC use with the E-Marketing adoption process of Iranian distribution firms in more generalisable approach, which contains further quantitative data analysis.

#### Long-Term Consequences of PC Use

Most of the interviewees (23 interviewees) constantly emphasised on considering the long-term consequences for adoption and implementation of E-Marketing tools effectively contributes to the E-Marketing adoption for their businesses.

*“We have implemented various E-Marketing tools within the company. This has started 11 years ago, when we first started from a basic website and email. As you are aware this company is a large company, having more than 200 employees with experience more than 20 years.so you understand that although we have the combination of young and old team in this organization. When we changed the marketing strategies that time, the motivation of that were to build and plan outcomes. This now paid off. Our old staff now an experienced and expert in IT and online marketing tools. They have constantly coming up with new innovative idea against our*

*competitors. Although it was a tough road to walk in but now, we paid off the hard times” (Company D).*

*“Whatever we developed in our organisation, was a long-term plan, so the employees could follow their goals and develop their skills. This achieved with the experiences that we created for them through adoption of new technology in our firm” (Company H).*

In contrast, Company V stated the importance of the customers for the firm and emphasised that, there is a lack of culture toward acceptance of new technology tools in the FMCG sector of the distribution. This is due to the mass market outside of the organisation, which means that there are massive competitor population in the external environment. In fact, this would have a negative impact on the company on losing their existing customers. In contrast, Company B2 discussed on the positive impact of new technology on long-term by arguing that sometimes a negative impact of one factor would lead to a positive impact. For example, in short term it may lead to losing existing customers or de-motivate the individuals within the firm but in long-term it leads to individuals with high IT knowledge and to change of the IT culture.

Previous studies supported the findings. For example, Beatty (2011), found a significant impact of this factor in adoption of E-Marketing through interviews. The adopters believed that, use of E-Marketing tools within their job boosted their job mobility, even though, in the beginning they believed that the new system would not support them greatly on their job. Based on the findings, the research will investigate the relationship of this factor and the E-Marketing adoption of Iranian distribution firms through the statistical test in the next phase of the study.

### **Organisational Characteristics**

Factors related to internal environment of the organisation have been considered by many academics as one of the significant components of effective and successful new technology adoption and implementation (e.g., Rahayu, 2015, and Al-Somali,2011). These internal factors related to the organisation can be considered as the controllable factors within the firm but for the aim of conducting this study only some of these internal organisational factors will be investigated. These factors are security and privacy concerns, size of the company, organisation’s culture, organisation’s e-readiness (firm’s financial resources, firm’s IT infrastructure, and human infrastructure), organisational learning orientation, receptivity (attitude) toward change, marketing capabilities of the organisation, strategic orientation, level of decentralisation, degree of formalisation, employees’ IT knowledge (level of new technology knowledge), and management IT knowledge.

Out of 12 only eight factors were found having a consensus of research respondents more than 80%. The eight important determinants with regard to the organisation's internal environmental characteristics are organisation's culture (85.8%); organisation's e-readiness (96.5%); receptivity (attitude) toward change (85.8%); marketing capabilities of the organisation (92.9%); level of decentralisation (92.9%); degree of formalization (85.8%); employees IT knowledge (96.5%); and management IT knowledge (92.9%). Table 6.18 shows the factors related to organisation's internal environment characteristics that influence the E-Marketing adoption of Iranian distribution firms.

**Table 6.18:** Determinants of the E-Marketing Adoption of Iranian Distribution Firms Related to Organisational Characteristics

| N  | Determinants of Iranian Distribution Firms' E-Marketing Adoption   | Interviewees  | Frequency | %     | Remarks              |
|----|--|---|-----------|-------|----------------------|
| 1  | Lack of Privacy and Security.  | A, B, C, D, E, F, I, J, L, N, O, Q, R, S, T, U, V, W, X, Y, B2                    | 21        | 75%   | Moderately Important |
| 2  | Size of The Company.   | B, D, G, I, M, U, W, Y, B2  | 9         | 32.2% | Less Important       |
| 3  | Organisation's Culture   | A, B, C, D, E, F, I, J, K, L, M, O, P, Q, R, S, T, U, V, W, X, Z, A2, B2          | 24        | 85.8% | Important            |
| 4  | Organisation's E-Readiness (Firm's Financial Resources, Firm's IT Infrastructure, and Human Infrastructure). | A, B, C, D, E, F, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A2, B2 | 27        | 96.5% | Important            |
| 5  | Organisational Learning Orientation.   | A, B, C, D, E, G, H, I, J, K, L, N, O, Q, R, S, T, U, V, W, X, Z                  | 22        | 78.6% | Moderately Important |
| 6  | Receptivity (Attitude) Toward Change.  | A, B, C, D, E, G, I, J, K, L, M, N, P, Q, R, T, U, V, W, X, Y, Z, A2, B2          | 24        | 85.8% | Important            |
| 7  | Marketing Capabilities of The Organisation.  | A, B, C, D, E, G, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, A2, B2    | 26        | 92.9% | Important            |
| 8  | Strategic Orientation.   | A, B, C, D, E, F, G, K, L, M, N, O, P, S, T, U, V, W, X, Z, A2, B2                | 22        | 78.6% | Moderately Important |
| 9  | Level of Decentralisation.   | A, B, C, D, E, F, G, H, I, J, L, M, N, O, P, Q, R, S, U, V, W, X, Y, Z, A2, B2    | 26        | 92.9% | Important            |
| 10 | Degree of Formalisation.   | A, B, C, D, E, F, G, H, I, J, K, L, P, Q, R, S, T, U, V, W, X, Y, A2, B2          | 24        | 85.8% | Important            |
| 11 | Employees IT Knowledge (Level of New Technology Knowledge).  | A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, U, V, W, X, Y, Z, A2, B2 | 27        | 96.5% | Important            |
| 12 | Management IT Knowledge.   | A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, V, W, X, Y, Z, A2     | 26        | 92.9% | Important            |

**Source:** Developed by researcher

**Note:** In this study, an important factor is a factor with frequency 80% to 100% of total research respondents' consensus, Moderately Important is a factor with frequency 51% to 79%, and less important factors is a factor with frequency between 0% to 50%. The proportion is adopted from the research conducted by Ahmed (2014, P.179) and Pallant, J. (2016).

## Organisation Culture

This variable has been studied as an aspect of organisation's behaviour which refers to norms and beliefs that are mutual in between the members of the firm that function instinctively, and that describes in a plain "taken-for-granted" style a company's perspective from itself and its external environment (Schein, 1985). The scholars have been measured this factor in both qualitative and quantitative approach. For example, Cameron and Quinn (1999) discuss that the quantitative strategy is effective, if it examines the fundamental beliefs and expectations that signify the culture rather than aspects that reflect the organisational environment. This study found this factor crucial for adoption and implementation of E-Marketing. Company A emphasised that the organisational culture in Iran still has a way to go, and still need to be developed, specifically for new start-ups, and specific brands to be able to have online presence. Similarly, Company K is improving their organisation's culture and they are leading through a better culture.

Company F also stated on the important role of organisation's culture on the adoption of E-Marketing and asserted that this poor culture is returned to the external environment of the organisation as the culture of online sale through online platform has not been formed and been accepted yet fully and need more time. Company D interested in face-to-face and personal visiting of the customers rather than web-based activities.

*"It is hard for us to get online orders for only small amount of costs. we are not focusing on end-user, we only focused on retailers so we need to get considerable number of orders to be able to issue the invoice, we cannot do that for little amount, it would give us loss. This is not acceptable for our organization. For getting small quantity orders, we need to have warehouses in various corners of the city, which this adds extra costs. We carry and deliver big amounts not small."* (Company D).

*"Our firm sees E-Marketing only on online orders and online sells and it has not yet understood that E-Marketing is not only these but also is branding, SEO, Mobile Marketing etc. For example, if a new product or service needed to be introduced, information on the website is not enough, but we need to pay for SEO tools or use other E-Marketing tools. We know these things however the organisation not. I as a manager need to set this culture in the organisation as I am currently working on it"* (Company V).

Unlike other firms, Company Z and Company B2, do not focus on customers and their experiences much and they rather to focus on internals.

*“In the Online sale context where customers need to visit our website and whether they show positive response they to the webpage; we do not care much to this matter at the moment.”*  
(Company B2).

The results are consistent with previous research on the impacts of organisation’s culture to distribution firms’ E-Marketing adoption and implementation. Such as Shemi (2012), Thatcher et al. (2006), and Martinsons (2008). Although a plethora of prior studies have focused on an organisation’s culture, the literature in the context of Iran remains scarce. For example, Humphrey et al. (2003) explored culture impacts on the new technology adoption of Iranian firms. They found that, CEO/Managers more tend to establish face-to-face business visits than the web-based communications. In addition, Humphrey et al. (2003) discussed that, Middle eastern developing countries share some mutual culture and beliefs. They generally focused on masculinity as an example, which affects the business interactions. As Martinsons (2008) assert that, the new technology adoption scenario is in fact is relationship-based and it stresses on trust, contextual, and indistinct restrictions amongst business and government. Since, the research methodology had qualitative approach through interviewing the experts, there is an opportunity to conduct future investigation on more generalisable approaches.

### Organisation’s E-Readiness

The organisation’s electronic readiness is a crucial in inspiring the intention of Iranian distribution firms to adopt E-Marketing tools for their businesses. Out of all participants been interviewed, 27 participants (97%) agreed that e-readiness of the organisation such as IT readiness and infrastructure or firm’s financial resources in providing and upgrading IT infrastructures could influence Iranian distribution firms” to adopt and implement E-Marketing to the advanced and high levels. E-readiness of the organisation Information technology (IT) readiness indicates intelligible IT-related apparatuses that are combined to accomplish business purposes and to convey data for more operational decision-making (Morris and Strickland, 2009). This according to the current research interviews contains the number of IT employees and the type of IT infrastructure within the organisations as well.

*“We are equipped with ERP systems within our organisation and our branches. We are up to date and connected all the time. We have connectivity with internals with our intranet system”*  
(Company E).

*“Distribution in Iran, still having its traditional techniques. This is because of the old remained systems within the firms especially the organisations that are established more than 20 years. However, with mixing the old generation with the young cohorts, most of the firms shifted to adoption of new technologies and we have planned and executed that in the last 8 years ago and we keep upgrading and attempting to be adjusted to the latest trends and systems” (Company F).*

*“Our E-readiness is not still in an advance level and still we need to be improved due to various factors. We are highly dependent on e-mail marketing in our firm specifically with our suppliers. We now have web-based system, and all of our branches is under this system” (Company I).*

*“In my opinion, in the context of pharmaceutical distribution, they have more e-readiness than the distribution in other sectors. In general, the distribution firms have better e-readiness when comparing to national e-readiness. Our employees have more e-readiness than our customers and this is because of the cultural issues and face to face marketing” (Company O).*

Company V although is a leading company in its sector, however, is not well-performed when comes to the internet and technology.

*“We are number one in the market when it comes to distribution of cosmetics. We are always the winner in the market because of the variety of the products and our innovative marketing strategies. We are number one when it comes to production and distribution, however in the context of internet and technology we are not taking risks” (Company V).*

Company W, U, and A2 asserted that the importance of the financial resources for organisation’s e-readiness. Company U stressed that, investment in IT infrastructure is highly dependent on the firm’s financial resource and it would include 50% of the total marketing budget of the firm. This described whilst they only allocate 5% of their total marketing budget on online marketing. Consequently, Company A2 stated that the level of e-readiness of the firm is 100% dependent on the firm’s financial resources.

*“The level of our firm’s e-readiness is high. Not only the infrastructures but also the employees and the management team also have e-readiness and high knowledge of IT. We have already adopted various technology tools such as Mobile, SEO and email marketing, it is a long time that our official works are paperless and our connectivity to all over the country is 24/7” (Company Y).*

*“In our organisation, 10 years ago, they were not thinking of even having a website, in which we can do our business in, having a portal for our customers that able them to do their orders, but now we have all of these and we constantly developing new e-strategies. We have our own online store” (Company X).*

The findings were found to be consistent with the results of the previous studies conducted by Molla and Licker (2005), Grandon and Pearson (2004), Hussin and Noor (2005), Sparling *et al.* (2007), Zhu and Kraemer (2005), and Al-Somali (2011). They found a significant impact of organisation e-readiness in adoption and implementation of new technology tools such as e-commerce, E-Marketing, EDI, etc. For example, Molla and Licker (2005) described that organisation e-readiness involved of four basics, consciousness, governance, commitment, and financial, IT and Human resources. In Iran, the organisation’s e-readiness is low in general, due to the lack of internet resources and inadequate IT infrastructures (Fathian *et al.*, 2008). On the other hand, various scholars suggest that firm’s e-readiness consists of two basic elements: Technical e-readiness and IT knowledge of the personnel (Patrakosol and Lee, 2009; and Zhu and Kraemer, 2005). According to Al-Somali (2011), the organisation e-readiness has a potential to provide a competitive advantage for organisation and is a differentiating factor in terms of firm performance. In fact, the lack of e-readiness in organisations, delay their innovation adoption process, and tend to wait until having adequate resources. However, future study needs to approve this result in more generalisable approach as the study conducted was limited in regards of the sample size.

### Receptivity (Attitude) Toward Change

Based on the results of the semi-structured interview with managers/owner and top managers, the study suggested that the openness (receptivity) of the manager/owner or anyone who has the right for decision making within Iranian distribution firms, has a significant impact on adoption and implementation of E-Marketing. The emergence of new IT innovations such as E-Marketing and e-commerce has developed a significant increase in workflow and has directed to a fundamental renovation of current methods of doing business. However, Changes and replacing the new strategies with the old ones is not a simple transformation that can be implemented in a short time. Its overview should sustain resistance from individuals clinging to old habits, and it must be refined inside the organisation rather than simply accepted (or transmitted) from the open market or competitor (Menguc and Auh, 2006).

*“In today’s world, all business is toward new technology tools adoption. Moreover, the successful businesses are the one that adopt this phenomenon. People are getting lazier, and they prefer to do their shops via online environment. In Iran, majority of the population, have access to internet and smart phone, and we are a country that are ahead of many developing countries in Middle East. The Iranian people’s beliefs and demands are varying from old generation. Thus, we as one of the leading distribution firms, have to move toward the adoption. The new generation are highly educated and busy and they will not have enough time for shopping, they mostly allocated their spare time on online environment rather that physically travel. None of our firms now does advertisement on television but they do on social media platform. The world is moving toward this way so we have to go as well unless we will lose” (Company A).*

*“We have a receptivity toward change because this fact is inevitable. Most of the distribution firms in Iran are transmitting toward adoption of new technology tools. There are two perspectives here: one is that firms want to be the leader in the market and so they are coming up with totally new strategy and Business Model and the other perspective is that the others within the market become their followers as they feel that they have to go into the cyber environment, if they resist, they may lose their existing market.” (Company G).*

*“If there be a governmental support, there will be more receptivity toward change of the strategy on the basis of E-Marketing and when this happens, all other companies inevitably will be drawn to the adoption” (Company N).*

*“Because of the firm’s traditional insight, we are not looking on the new IT innovations. Normally we are the followers not the leader in the market and we first wait other companies test and apply the new IT innovation and if they are successful then we adopt the same technology” (Company M).*

This study found a consistent result on the receptivity of the firm toward changes influencing distribution firm’s decision to adopt E-Marketing with previous studies. For example, Rymound (2001), and Al-Somali (2011) found the receptiveness of firms to changes, as a significant factor for achieving success in IT innovations and recognised a forecaster of IT innovation diffusion and integration. Petroni and Rizzi (2001) discussed that one of the greatest obstacles for applying new IT technologies is Overcoming employees' resistance for firm’s internal changes. They (ibid) argued that it is vital to consider the phases that need be passed over, before the adoption, as this will give time to improve the strategies to lighten some

resistance. However, based on the previous research, yet this insight of organisational characteristics has never been tested empirically in the E-Marketing adoption of Iran and in Iranian distribution firms' context. Thus, this research considers testing the factor statistically in the next phase of the study.

### Marketing Capabilities of the Organisation

Although studies investigating the impact of marketing capabilities on IT technology adoption is quite scant and finite (Rahayu, 2105), some research indicated that marketing capabilities had a significant effect on the success of the organisation's product/ services. Subsequently, the researcher purpose is to explore if this factor is one of the influencing factors that affect adoption of E-Marketing among Iranian firms in distribution sector. As a result, this factor found as one of the influencing factors of E-Marketing adoption. Most of the interviewees (26 interviewees) repetitively repeated that considering the marketing capabilities of the companies for adoption and implementation of E-Marketing tools effectively contributes to the E-Marketing adoption for their businesses.

*"We have already had a well-known website in social Medias and we constantly advertising through SEO tools in social media and search engines. We developed a software that we do our adverts through that tool. We are highly active in social Medias and have various pages and channels. We barely need to advertise in Television or Radios" (Company B).*

Company G believed that their supplies/manufactures are one-step in front in comparison with distribution companies that are only a Middleman in between them and the retailers.

*"In my opinion, our marketing capabilities and opportunities is very limited. If we go one-step behind, our supplier/manufactures are far better than us in technology implementation. They significantly have positive attitude toward E-Marketing tools. Their marketing strategies are all improved in accordance with IT tools" (Company G).*

*"Our marketing strategies are now focused on customers/suppliers in foreign countries since we adopted E-Marketing. This is a new perspective and strategy that vary us from our other competitors" (Company W).*

*"We keep informing and giving offers to our customers on weekly basis, we have focused for more than 10 years on online marketing, and we had e-mail marketing tools and now having mobile marketing tool added to our current marketing strategies. We believe what is making the company's*

*digital identity is not its website but its presence on social medias, search engines, smart phones. This is the fact that builds the company's identity. However, there is a gap still and we need a structured research on that which have been missed" (Company A2).*

Company U unlike is not capable of marketing strategies and that is one of the reasons that make the firm behind from its competitors.

*"In overall, in our distribution center, we do not have allocated budget for marketing activities for expanding our business. Most of our marketing activities are limited to our salesperson visiting our customers, suggesting our services/products, and offers. Thus, we have problem in this matter as we do not have any budget for expanding and modernise our strategies. However, unlike us, our suppliers have their own online marketing tools and a specific allocated budget for upgrading their IT infrastructure, thus they are one step forward us" (Company U).*

There is a lack of argument has been found within the literature of the marketing capabilities' impact on adoption of E-Marketing. However, there are few scholars found the significant impact of the firms' marketing capabilities on the adoption and implementation of adoption in developing countries including (Rabie, 2013; Abou-Shouk *et al.*, 2012; Alrousan, 2014; Chong, Bian, and Zhang, 2016; Sheikh, Shahzad, Ishak, 2017; and Adede *et al.*, 2017) For instance, the study conducted by Rabie (2013) found marketing capabilities of the firm is crucial in the E-Marketing adoption process and its implementation of new technology tools, since it dealt with the firm's ability to grow and promote faster. Consequently, when it aimed to shift to the advanced levels of adoption of E-Marketing, having the capability to market their service/products on online platform is the fundamental. In addition, internationalisation and importing or exporting the products as a marketing capability is influencing the firm's successful E-Marketing adoption. However, there is still lack of studies on the impact of marketing capabilities on the adoption of E-Marketing. Hence, this research will undertake further investigation by examining this factor statistically on the Iranian Distribution firms'' context.

### Level of Decentralisation

Based on the result of the conducted interviews, this study found that there was a great emphasis on the importance of organisation's level of decentralisation by 26 interviewees

(93%). This factor has been found to be another influencing factor that is likely to be supportive on the rate of the new technology innovations within firms. This factor specifically in developing countries with having low-level of decentralisation (Robbins, 1998) would be helpful for a better decision-making process as the process pushed down to the lower-level managers within the organisation. This has been emphasised by various research participants. For example, Company L is a governmental company and has a medium level of decentralisation due to its nature. This firm was emphasising that, even this low level, has high impact on the implementation of new technology tools. This is because the CEO/Owner of the firm is one of the national Iranian Bank and all investments belong to the governments, so the managers must reduce the risks and limit the decision making to themselves. This is unlike the private firms that has more flexibility. In this firm, the manager needs to consult with the CEO/owner and to consider the profits and the costs before making the final decision.

Company D pointed the same issue that the decisions in their company centralised on the manager, and everything needed to be approved by manager.

*“The decision in our firm is upon the approval of the manager. Previous manager was not like now and was more decentralised and the decision making were quicker as the top manager also were in that process. Now is different and at some point, the final decision maker is the CEO/Manger. This made the processes slower and sometimes it takes 6 months just to start the new IT project and this is our main problem in implementation of new technology tool or strategy” (Company D).*

Unlike, “Company H” Highlighted that the problem is not the level of decentralisation. They highlight that even with high level of centralisation still the company can handle to the problem. This is because the company is a private company. Recently there was a new IT idea for the internal systems for the whole branches been suggested by IT manager of the firm. The idea has been executed after approval of its costs and there was no need for the final decision of the Manager/Owner. Within 2 months the new system set upped, and this resulted to 10% increase within the whole sale.

The discussion of the firm’s level of decentralisation in the process of E-Marketing adoption are consistent with the previous studies. For example, the study conducted by Al-Somali (2011), and Saran et al., (2009) found the firm with decentralised structure push the decision-

making process toward down to the lowest levels that is capable for making a logical decision, developing commitment, and involvement which this positively related to the implementation of new IT innovation. This according to Mohamed (2002), forms a trustable environment and induces the sense of responsibility for each individual toward the organisation to transform the power into continuous development initiatives and new innovative outcomes. In earlier studies in the context of developing countries such as India and Saudi Arabia also found that if decision making process be decentralised, the inclination to adopt E-Marketing in the organisation would be increased due to the high interaction between IT professionals and the management. Therefore, this interaction can change the unfavourable approach of the manager/owner to favourable one (Alrousan,2014; Salome and Ofunre, 2019; and Qashou, 2017). Hence, this current research will undertake additional step by examining the factor statistically on the Iranian firms in distribution industry context.

### Degree of Formalisation

Majority of interviewees (24 interviewees) repetitively emphasised that level of formalisation in the organisation effectually contributes to the implementation of E-Marketing of their businesses. Once the new IT innovation has crossed the implementation stage, formalisation would be the strength for implementation as it benefits in description of authority and accountability and decreasing conflicts in various opinions. In developing countries such as Iran, this has not clarified yet and still the companies, there is no clear rules, and procedures for adoption and implementation of new systems or IT tool. For that reason, each company regulates their own rules and procedures which mostly not reasonable and been approved and this leads on struggles. For example, Company Q has regulated and impractical rules that make the adoption and implementation of new IT innovation longer than it needs which led to the unsatisfied employees. Unlike that, Company P has detailed and well-defined guidelines, the procedures are clear. Thus, with any changes, the formal processes could be done within the shortest time.

*“In our company, everything has been adjusted. Any new system or any changes in the marketing strategies for example a new IT system, as we recently changed our entire system into intranet network, first there will be a committee meeting, then there will be further research and after*

*confirming and approval, in the final committee meeting which consists of eight participants, the final decision would be made. This is the point that would stop us for new IT implementations because it takes longer than it should be” (Company H).*

*“Recently, there was major modification in our online marketing strategies been structured by IT and Marketing manager which highly would be beneficial for the firm. However, when it came to approval for the implementations there was high conflicts and various unclear procedures that at the end, lead the project to be cancelled. There were many limitations and unclear procedures that this always stopped us for entering to new projects and we never took them serious” (Company I).*

Company G asserted that, creating trust in customers when using the company’s online facilities, returns to the fact that the customers do not feel that the outcomes will be loss. Moreover, this back to the companies’ regulations and rules when developing a new technology system. For example, if the customer does an online shop, should be able to return it within 10 days if unhappy with the product and this is the rule.

Company B2 and V, in contrast asserted that the regulation and rules structured by governments has positive impact on their level of formalisation.

*“Rules and procedures are determined and depend on the firm’s structure and board of directors. They establish procedures and rules within the firm that sometimes makes the processes difficult and sometimes easy. For example, in our firm, I can find new customers/suppliers through my website or the social media easily since the establishment of new technology system and new procedures, which this normally happens through the trading team, and it takes couple of weeks and sometimes longer” (Company V).*

*“Since we have adopted and implemented E-Marketing tools and upgraded our systems according to the latest technology, our work rules and procedures is become much easier and more flexible. We do not have any issues with rules and regulates such as tax that is regulated through governemnets.... but most of the time, our issues were internal, and this has been resolved since the adoption. But still this differed from company to company” (Company B2).*

The results are consistent with previous scholars’ research on the impacts of the formalisation level on firm’s adoption of E-Marketing. Many studies have explored the role of firm’s formalisation level on firm’s adoption of E-Marketing including (Bonetti, Petrillo, and Simoni,2006; Moghaddam and Khatoon-Abadi, 2013; Qashou, 2017; Ndekwa and Katunzi,

2016; Lim, Baharudin, and Low, 2016; and Harif, 2017). Some of these studies found that adoption of new technology is positively linked with the trail of new IT innovation and implementation of such tools. Even though plethora of prior academics have focused on level of formalisation, the literature in the context of Iran remains scant. For example, Moghaddam and Khatoon-Abadi (2013) found that the organisational characteristics such as degree of formalisation, centralisation, nature of business, and enterprise information portal (EIP) contribute to the adoption and implementation of E-Marketing of Iranian firms. However, as the methodology of the study was exploratory nature through interviewing experts, there is a prospect of conducting further investigation on more generalisable approaches.

### Employees IT Knowledge

The study found the employees' IT knowledge is one of the important factors influencing the adoption of E-Marketing among Iranian distribution firms. An adequate level of ICT E-Marketing knowledge of the employees assists the firms to adopt appropriate E-Marketing activities in the business. For example, company O explained that all employees in all branches all over the country are working with intranet and all their correspondences are through this system. All employees are knowledgeable with the latest IT innovations and technologies and intranet is the only channel for the communication between the personnel. Company M also stated the 99% of their staff are well knowledge in IT technologies and this highly affects their change of marketing strategies and combining within online activities. The intranet is the only way of communication within the organisation.

*“The key success of our organisation is the fact that our employees have a good IT knowledge. one period our firm was not successful in implementation of E-Marketing, due to the lack of IT knowledge and software awareness” (Company G).*

The study finding corroborates the previous results of studies conducted in developing countries including (Ohunmah, 2015; Ghobakhloo, 2012; Ramdani and Kawalek, 2009; Huy *et al.*, 2012; and Alam and Noor, 2009). These studies found a positive impact of employees' IT knowledge on adoption of new technology tools. For example, Ramdani and Kawalek (2009) found that, the firm's employees' level of IT knowledge about ICT and the perceived relative advantage of ICT has huge impact on adoption of E-marketing. However, there is a necessity for conducting further research to confirm the result in more generalisable approach as the research conducted was limited as regards of the sample size.

## Management IT Knowledge

As much as Employees' IT knowledge is one of the important factors for firms to be able to implement E-Marketing, the management's IT knowledge is also a key element for a successful adoption and implementation. This factor found to be an important factor influencing the adoption of E-Marketing of Iranian distribution firms. A greater level of ICT and E-Marketing acceptability principles by the manager/owner, directly impact considerations for further E-Marketing commitment in the business. In most firms, particularly in Middle Eastern developing countries, managers would perform just the simplest minimum to make themselves well-informed with technology. Result shows that 26 interviewees consider the management IT knowledge as one of the determinant factors that affect them in adoption and implementation of E-Marketing.

*"I have adequate abilities in IT because my degree is from computer science. I am aware of the advantages of the IT usage in business activities; consequently, I am confidence to employ the E-Marketing technology in the firm" (Company A).*

*"I am using IT and its technologies since I was in high school, and I had joined in various computer courses. Furthermore, I have joined to different IT training sessions, arranged by local government. Thus, I have sufficient competences in computer context. I designed the company's website myself" (Company F).*

*"I have many years of experience on IT. I always have new IT ideas and our system is up to date. The experience I had led the organisation toward a complete website with the latest IT tools. This stimulated our employees to learn and increase their IT knowledge. This would boost the cultural usage of IT tools and when the culture forms; there will be a receptivity toward e-marketing adoption" (Company A2).*

Management's IT knowledge would give higher confidence to the manager/owner in utilisation of E-Marketing tools and would decrease the uncertainty and risks that may cause by the adoption. This result is in consistent with previous studies including (Ocloo *et al.*, 2018; Kumar *et al.*, 2019; Chong, Man, and Kim, 2018; Chandra and Kumar, 2018; Chuang *et al.*, 2009; and Chiu *et al.*, 2017), found the influencing impact of key Manager/Owner and Key decision makers in adoption of new technology tools. For example, Chandra and Kumar (2018) in their study found that most of the manager/owner's characteristics, including the use of PC, the level of IT knowledge, age, gender, and education have a positive impact on the adoption of new

technology. This appears as a vital factor for the adoption as they (ibid) stated that owner of the firms is reluctant to the new technology adoption due to the lack of IT knowledge. As a result, the level of management's IT knowledge has increased participation of Iranian distribution firms in adoption and implementation of E-Marketing.

### **Technological Characteristics**

External factors related to the technological attributes have been considered by many academics as one of the most important components of effective E-Marketing adoption and implementation and used by many scholars including Duan *et al.* (2012), Morteza *et al.* (2011), Shah Alam, Ali, and Mohd. Jani (2011), and Tan *et al.* (2009). These external technological related factors are uncontrollable within the organisation external forces but for the aim of conducting this research, only some of the external factors will be investigated. These factors are Physical Infrastructures and Sufficient Accessibility to Internet Resources, Complexity of Technology, Cost Effects, Perceived Benefits, Lack of Payment Facilities, Lack of Reliable Power Supply, Language Barrier, Lack of Internet Address Space, Compatibility, and Relative Advantage.

Out of total ten variables related to technological characteristics that emerged from the literature review and through analysing the interviewees' responds, five important factors were concluded as the important factors that may influence the E-Marketing adoption of Iranian distribution firms. The important determinants of the technological characteristics are including the Sufficient Accessibility to Internet Resources (25 interviewees); Cost Effects (25 interviewees); Perceived Benefits (26 interviewees); Compatibility (26 interviewees); and Relative Advantage (25 interviewees). Table 6.19 shows the factors related to external technological characteristics that influence the E-Marketing adoption of Iranian distribution firms.

**Table 6.19:** Determinants of the E-Marketing Adoption of Iranian Distribution Firms Related to Technological Characteristics

| N  | Determinants of Iranian Distribution Firms' E-Marketing Adoption             | Interviewees   | Frequency | %     | Remarks                     |
|----|--|--|-----------|-------|-----------------------------|
| 1  | Physical Infrastructures and Sufficient Accessibility to Internet Resources. | A, B, C, D,E, F, H, I, J, K, L, M, N, O, P, Q, S, T, U,V, W, X,Y, Z,A2 | 25        | 89.3% | <b>Important</b>            |
| 2  | Complexity of Technology.  | A, B, C, D, E, F,H, I, J, L, O, Q, R, S,T,U,V,W, X, A2                 | 20        | 71.5% | <i>Moderately Important</i> |
| 3  | Cost Effects.  | A, B, C, D, E, F,G, I, J, K, L, M, N, O,P,Q, R, S,T,U,V,W, X,Y, B2     | 25        | 89.3% | <b>Important</b>            |
| 4  | Perceived Benefits.  | B, C, D, E, F,G,H,I, J, K, L, M, N,O,P,Q, R, S,T,U,V,W, X, Z, A2, B2   | 26        | 92.9% | <b>Important</b>            |
| 5  | Lack of Payment Facilities.  | A, B,C, F,G, I, J, K, L,M, N,O,Q,R, S,U,V,W,X,Y,A2                     | 21        | 75%   | <i>Moderately Important</i> |
| 6  | Lack of Reliable Power Supply.   | A, B,C, D,G, L, N,O,S,V, X,Y, B2                                       | 13        | 46.5% | <i>Less Important</i>       |
| 7  | Language Barrier.  | A, B, D, F,G, I, L,O, Q, S,T,U,V,W, X, A2                              | 16        | 57.2% | <i>Moderately Important</i> |
| 8  | Lack of Internet Address Space.  | A, B,C, I, M, O, S, T,U,V,W, X,Y, A2, B2                               | 15        | 53.6% | <i>Moderately Important</i> |
| 9  | Compatibility.   | A, B,C, D, E,G,H,I, J, K, L, M, N,O,P,Q, R,T,U,V,W, X,Y, Z, A2, B2     | 26        | 92.9% | <b>Important</b>            |
| 10 | Relative Advantage.  | A, B, C, D, E, F,G, H, I, J, L, M, N,O,P,Q, R, S,T,U,V,W, X,Y, B2      | 25        | 89.3% | <b>Important</b>            |

**Source:** Developed by researcher

*Note:* In this study, an important factor is a factor with frequency 80% to 100% of total research respondents' consensus, Moderately Important is a factor with frequency 51% to 79%, and less important factors is a factor with frequency between 0% to 50%. The proportion is adopted from the research conducted by Ahmed (2014, P.179) and Pallant, J. (2016).

### Physical Infrastructure and Sufficient Accessibility to Internet Resources

The physical infrastructure and sufficient accessibility to internet resources is very critical in elevating the intention of Iranian distribution firms to adopt and implement E-Marketing for their businesses. Out of 28 participants interviewed, 25 participants (89.3%) agreed that having sufficient accessibility to internet resources could influence Iranian distribution firms to broaden their business to online platform. Internet and its various tools are very vital for Iranian distribution firms to diversify their business into online platform. With the advent of new internet technology tools, organisations can easily communicate with all their internal employees and with their supplier/customers and establish business transactions without need of travelling. Moreover, with the advent of this technology, Iranian distribution firms could produce quality and innovative services. However, this required a high speed and other crucial elements to successfully adopt and implement E-Marketing.

*“We have ERP systems which has connected the whole company and its branches all the time. The internet speed is quite high with no dis-connectivity. We can get the orders in any moment. We have also connected internally with intranet network” (Company A).*

*“The Internet speed is varying and unfortunately it’s not something that can be under our control. There are times that the speed is high where there are times that it is too slow that we can hardly be able to do any activity. Hence we have a good IT infrastructure and updated software” (Company D).*

*“Although the speed of internet is low in our organisation, however this is a problem in all the companies, and if it is slow, it is for everyone, thus it is not having a big impact on the adoption and it is not influencing the business. Also, the speed of internet in the recent years has become better” (Company E).*

Although company E believes that the speed of internet has not have much impact in their business however, Company H believes that the speed and having sufficient accessibility to internet resources has huge impact in their online activities.

*“The speed of internet is highly important in our online activities. This is because we have branches all over the countries in all of the provinces, the better the speed of internet the higher the quality of the employees’ work.” (Company H).*

*“The current internet infrastructure in the country has high quality and helped many businesses to shift to online platform including our firm. This is separates from the filtering and blocking the websites” (Company Q).*

*“We have an excellent accessibility to internet resources. The government support in the recent years in this matter has been increased, and in the last 6 years, all of the infrastructures were developed. We mean by the infrastructures, the telephone operators which is pioneer in this domain” (Company X).*

Unlike of these companies, Company W believes that this factor is not an important factor:

*“Even though they have sufficient accessibility to internet resources, speed of internet is high, and the internet penetration is high, it is expected that we do better businesses though we are distribution firm, and we distribute all over the country including deprived areas. In some of the cities in Iran, the telecommunication masts are still from the old generation, and it has low*

*coverage, thus many of the firms that are giving online orders, this is causing problem for them in giving online orders, there are many blind spots that has not been supported and so they cannot do any online activities. Although the overall internet penetration in Iran is high but, in some cities, such as "SISTAN BALOUCHESTAN" is low and adopting and implementing e-marketing cannot achieve to a successful result in such cities and we need to stick to our traditional techniques" (Company W).*

This study found a consistent finding with previous research about the impacts of sufficient accessibility to internet resources on the adoption of E-Marketing of firms. For example, research conducted by Ohunmah (2015) and Shemi *et al.* (2013) found restricted accessibility to internet resources de-motivates the adoption of new technology tools. In most of developing countries the insufficient accessibility and slow speed of internet has significantly contributed on delay of E-Marketing adoption. Even though, in some developing countries there is sufficient accessibility to internet resources the adoption and implementation of the firms is hindered due to lack of electricity in poorer areas (Salome and Ofunre, 2019). Based on the result of the interviews and supported by previous studies, this research will examine the relationship of this factor with the E-Marketing adoption process of Iranian distribution firms in more generalisable approach that includes more quantitative analysis.

### Cost Effects

*"We are a wealthy company and in terms of costs it is not impacting our adoption and implementation of e-marketing. We have enough financial resources to allocate to our IT infrastructure and marketing budgets. We have the facilities, the environment and enough capital for that" (Company D).*

*"Adoption of new technology has increased the quality of our servicing whilst it reduced the cost specifically the costs in the sales department. Within the human resource sector, since adopted, our need to workforce has diminished. The ordering amount are increased and the timing for getting each order is significantly decreased. This automatically reduced the cost of wages.it impact in various costs in a positive way" (Company G).*

*"At the start, we anticipated massive expenses, and this stopped us from the adoption, however we stated the adoption. Although we struggled in the initial stages of the adoption but when we achieved to a remarkable ROI, it encouraged us to increase our investment.in the beginning, our costs were more than the revenue but now the costs are less than before" (Company Q).*

*“Whatever technology we added to our organisation’s system, costs us, however within a short-term it returned as a profit, as long as it reduced our other costs. Here is the thing that any changes in a company requires having an initial budget as a start, if the company do an organised planning, the costs can be reverted” (Company X).*

From the results of the interviews, it was found that the majority of the participants (25 interviewees) agreed that the cost effects might affect the Iranian firms’ decision for adoption of E-Marketing. New technology adoption costs have widely investigated, as cost is an important element of the Proficiency facet of organisational performance. The adoption reduces the costs remarkably, although in the beginning it costs and consumes much investment and research in the market. Most of the firms after couple of months of adoption recovered the amount has been invested in the new technology. it saved cost of travelling and wages of the visitors. The interview findings on the cost effects are consistent with previous studies (Seyal *et al.*, 2005; Rahayu, 2015, Alam, 2009; and Al-Somali, 2011). For example, in an empirical study conducted by Alam (2009) via 465 surveys, the decision of Malaysian firms for adoption of E-Marketing for their business was examined and found cost effects has a significant role on the adoption of E-Marketing for firms noted that in developing countries ICT admission charges. For example: payments for accessing the internet and payments for the internet service providers (subscription fees) are extremely costly. Rahayu (2015) found that the less be the cost of the adoption and its operation, the more quickly would be the adoption process. The study state that, since the adoption of E-commerce, the prices of the various hardware and software have reduced due to the development of Smart phones, personal PC, and availability of numerous user-friendly software packages. He further discussed that, although the high cost is one of the hindering factors, however after few months of adoption, it reduces many organisational costs significantly. Based on the interview findings and supported by previous studies, this study will examine the relationship of cost effects with the adoption of E-Marketing process of Iranian distribution firms in more generalisable method that involves with more quantitative data evaluation.

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### Perceived Benefits

The perception of the organisations from the benefit of the adoption and implementation of E-Marketing is very essential in elevating the intention of Iranian distribution firms to adopt E-Marketing for their businesses. Out of the 28 participants interviewed, 26 participants (93%) agreed that perception of the organisations and the managers from the benefits of new

technology could influence Iranian distribution firms to adopt and implement E-Marketing tools. The degree of acceptance of the possible benefits that E-Marketing can provide for the firm, found as one of the important factors that impact on the decision of the adoption. As adoption of new technology needs and costs money, a rational adopter would only invest on IT tools that resolve the firm's current issues and provide new opportunities for firm (Arora and Aggarwal, 2018).

From the interviews conducted, most of the companies pointed out the positive impact of the adoption on their businesses. Company B achieved to a higher percentage of profit since adopted along with a remarkable decrease in the whole distribution process, less needed workforce, and significant increase in number of customers.

*“There is a remarkable revolution and high competition in between the businesses in adoption of e-marketing and developing new IT innovations. Distribution industry is still in early stages and need more time to be fully shift to online environment and these types of marketing strategies is still in progress, however with this level of adoption, many of our costs decreased and we do not need to send the visitors for getting the orders” (Company B).*

*“Our previous manager's perception from the benefits of e- marketing was weak. This was next to the fact that our employees also did not have enough experience and knowledge of IT related tools. Therefore, we could not be as strong as our competitors, and we are still in developing and progressing” (Company C).*

Company E, P and B2 underlined that, the perception of the customers from the benefits of new technology is as important as the perception of managers.

*“Until customers have negative impressions on online environment for matters such as online payments, it does not matter what is our perception from the benefits, we cannot have a successful adoption. They need to have the beliefs on how much using this tool would decrease their costs specifically the transportation costs and it will give them the authority for managing their time and allocate a convenient time for evaluating the products and giving the orders” (Company E).*

Most of the interviewed participants' perception from the benefits were on the cost side of the adoption. For example, Company H pointed out the significant reduction of using the papers works, besides that, each receipt issued to the customer, takes more than 2 days to be prepare and deliver to them. The only process now is to send the order via the tablets and to get receipt

within the seconds after. Similarly, Company U highlighted on the ease of communication and finding new customers. Company V stressed that the adoption would highly reduce the costs and increase the number of customers/suppliers. The discussion over here was on the cultural perspective of the customers as this company is the distributor of electrical home appliances. The company, due to its nature of distribution, has customers with higher IT knowledge. However, the perception of the customers from the benefits is not strong enough and many of the firm's customers are not involved with online tools. This especially applies on the old and traditional customers.

*“We believe that 100% of online transformation would benefit us in future. However, at this period we cannot transfer our business to online environment entirely. We still have the acceptability issue from our customers' side. We gradually attempt to convince our customers from the usefulness and benefits of the phenomena. This is for example through offers and packages if they give their orders though our online portals. They can get free delivery along with 20% discount when order online or they can get gifts next to their orders. This is benefiting us because we are ending the distribution process through lower costs” (Company A2).*

The result is consistent with previous findings on the impacts of perceived benefits to decision of the businesses to adopt and implement E-Marketing with their marketing strategies. There is many previous research that have investigated the role of perceived benefits on firm's adoption of E-Marketing, these include (Ifinedo, 2014; Ohunmah, 2015; Shemi, 2012; Rahayu, 2015; Alrousan, 2014; Ahmed Sheikh, Shahzad, and Ku Ishak, 2016; Sheikh, Shahzad, Ishak, 2017; San-Martín and Jiménez, and López-Catalán, 2016; Kumar *et al.*, 2019; and Arora and Aggarwal, 2018). Although a plethora of previous studies have focused on perceived benefits, the literature in the context of Iranian firms remains scant. For example, Morteza *et al.* (2011), found having perception on the benefits of adoption, impacts on the adoption of E-Marketing among Iranian firms; they found that firms would adopt IT technology tools. If they perceived that the needed tool would overcome the firm's performance gap or can bring more business opportunities. This also would extent the level of usage of IT innovation tools. However, since the methodology of this study was exploratory through interviewing the experts, there is still a need to conduct future research on more generalisable approaches.

## Compatibility

Based on the interview results, the study found there was a high repetition on highlighting the importance of the compatibility of the firm's technology system and innovation actors by 26 interviewees (92.9%). An IT innovation can be effortlessly accepted in the firm if it is attuned with the prevailing standards of the firm, meet the needs of the company, and be in accordance with the firm's culture. For example, Company A has already highly active for advertisements in the social media and search engines using social media marketing and SEO tools. The company equipped with professional software particularly for adverting in the social Medias and is modified according to the current filtering problems. The company has its minimum offline marketing activity using outbound marketing tools. Company B has already Intranet network to be able to communicate with all employees and branches, equipped with a good IT infrastructure and all systems are updated.

*“Our organisation and all its branches are connected through intranet network. There is no paper correspondence, and it is all through the intranet network. Our communication with our suppliers is through extranet network” (Company D).*

*“Adoption of e-marketing was the point of change in our firm. The distribution process in the basis of internet came out from its traditional method. We are compatible with the need of the external adopters and our staff's experiences.” (Company G).*

*“We have already active via the social media platform. We know that now everyone has smartphone and for that instead of visiting the customers face to face, We Transformed the process into a tablet that each of our customers have. All the orders, payments and receipts are through these tablets” (Company H).*

The findings were found to be consistent with the findings of the research conducted Shaltoni *et al.* (2018). They (ibid) found compatibility impact specifically the initial stages of E-Marketing adoption, but not the degree of the implementation. This is because adopted organisations may have already required their organisational changes, decreasing the impact of the firm's compatibility in differentiating various stages of E-Marketing diffusion. Similarly, Rahayu (2015), Saffu *et al.* (2008), and Alam *et al.* (2011) found a significant and positive role of compatibility in the E-Marketing adoption and new IT innovations' adoption. However, future study needs to confirm the finding in more generalisable technique as the study conducted was only limited regarding the sample size.

## Relative Advantage

Based on the findings from the conducted interviews, the study found that there was a great repetition on highlighting the importance of relative advantage by 25 interviewees (89.3%). The level of relative advantage is measurable by elements such as technical, economic, and sociological aspects. It is to be distinguished that this factor has been conveyed in numerous ways, such as financial profitability, social advantage, and improved status of the firm in its industry or among its customers (Ohunmah, 2015; Aljowaidi, 2015; Shaltoni *et al.*, 2018; and Samat *et al.*, 2017). For example, company B explained the importance of the new technology by pointing out their new IT system, since it replaced to their previous traditional distribution strategies as they have full accessibility to the customers and suppliers. The company was getting the orders physically through sending visitors to the stores where now easily getting the orders online at any time during the day which in fact this increased the quality if the servicing and reduced the sales costs. In addition, there is a less need for the workforce as the wage costs decreased. However, company E, reported that at some point the adoption of E-Marketing has positive impacts and sometimes negative: *Having known if the new technology is better than our existing marketing systems is dependent on some of the external factors.*

*“... In my opinion it has negative impacts...I mean it can have both negative and positive effects; it all depends on the external environment. Sometimes you see instabilities in the organisation. For example, if we do not have good financial statues. Although the speed of internet is high or the government been provided us with good infrastructures are, good but we cannot afford for such facilities because these are provided from abroad to government and due to the currency differences and inflation the organisation cannot afford. Therefore, although the adoption is a better idea when replaced but it would face the firm with more problems. However sometimes it has good impacts as well” (Company E).*

Company J believes that new technology is a positive and a threat for the organisation.

*“Most of the suppliers and the manufactures in a way are linked with e-marketing and its tools. This is a threat for us because they will not need us as a mediator between them and the customers; they can deliver directly to the customers and consumers. We not owning the brand we are just an intermediate. In the other hands, if we do not adopt, we will lag behind in the competitive market and we may lose our existing customers” (Company J).*

Company N believes that what helped most to the development of the company is the new technologies that replaced to the old traditional systems, which highly depended on the paper, PCs programmed with basic software system, and physical materials.

*“There were days we needed to do all works on PC with basic functions however now we have sophisticated internal and external IT systems, you can access to information with one click and better than that we have the smart phones...it is always with us. This is not comparable with 15 years ago where, there was just PC with basic functions or even earlier that we only had television and newspaper for advertisement. If we look back and compare, the new technology tools have high impact on the marketing strategies of the organisation” (Company N).*

This finding was found to be consistent with the previous findings of the research conducted by Ghobakhloo *et al.* (2015), Hung *et al.* (2011), Huy *et al.* (2012), Alrousan *et al.* (2014), Al-Somali (2011), Sheikh, Shahzad, Ishak (2017), and Shaltoni *et al.* (2018). Premkumar and Roberts (1999) found that relative advantage is the only significant variable to distinguish the IT tools adopters from the non-adopters in four different E-Marketing tools. This is due to awareness of the technology adopters from the benefits. In the other word, the adopter firms’ perception from the IT innovation’s relative advantage differs from the non-adopters. However, future research needs to approve the result in more generalisable technique as the study conducted was limited in regard of the sample size.

### **Legal and Regulatory Characteristics**

External environmental factors related to the legal and regulatory characteristics found by many academics and practitioners as one of the determinant components of effective E-Marketing adoption and implementation (Alrousan, 2014; Al-Somali *et al.*, 2011; Hung *et al.*, 2011; Hudhaif and Alkubeyyer, 2011; and Huy *et al.*, 2012). These external environmental related factors are uncontrollable forces. For the aim of conducting this research only one of the external factors related to legal and regulation will be investigated. This factor is Lack of Technology Legislation (Copyright protection issue, Transaction issues, Trademark Security Problem) and Guidance. By analysing the interviewees’ responds, it has been found that this one variable was not concluded as determinant factor that may influence the E-Marketing adoption of Iranian distribution firms. Table 6.20 displays the factor related to legal and regulatory characteristic that influence the E-Marketing adoption of Iranian distribution firms.

**Table6.20:** Determinants of the E-Marketing Adoption of Iranian Distribution Firms Related to Legal and Regulatory Characteristics

| N | Determinants of Iranian Distribution Firms' E-Marketing Adoption  | Interviewees  | Frequency | %     | Remarks              |
|---|---|---|-----------|-------|----------------------|
| 1 | Lack of Technology Legislation and Guidance (Copyright protection issue, Transaction issues, Trademark Security Problem). | A, B, C, D, E, I, J, L, N, O, P, Q, R, S, T, U, V, W, Y | 19        | 67.9% | Moderately Important |

**Source:** Developed by researcher

**Note:** In this study, an important factor is a factor with frequency 80% to 100% of total research respondents' consensus, Moderately Important is a factor with frequency 51% to 79%, and less important factors is a factor with frequency between 0% to 50%. The proportion is adopted from the research conducted by Ahmed (2014, p.179) and Pallant, J. (2016).

If a company tend to involve in e-adoption, the motivations and creativities could arise from the appropriate rules and regulations on issues such as copyright protection, licensing, franchise, and source of guidelines and information about doing online business. There were some of the companies highlighted the importance of these factors.

*“There are no specific regulations for matters such as e-trading or e-commerce in the country; it is easy for everyone to duplicate the idea without consideration of copyright. For example, “Snapp” which is a ride hailing company in Iran started the business 5 years ago. The company got successful quickly and other competitors after witnessing the success duplicated the business idea under other names.” (Company D).*

*“There is no internet taxation in Iran. If the government regulate internet taxation, regardless of the bad economic situation the companies will be happy to pay, although they have their own costs. By assigning tax on sales via internet, the government can collect the taxes and use them to improve the IT infrastructure” (Company G).*

Company Y always keen on expanding the business to online environment as involving in business through the internet channel has a greater security and if any errors happen, it is easy to trace and find the failure reason. The firm advised that distribution firms should always consider having a safe and secured payment facilities that both sides (buyers and traders). This research found this variable is not an important factor for adoption of E-Marketing. However, there were previous research found the factors have impact on the adoption of new IT tools. For instance, research conducted by Alrousan (2014), and Huy *et al.* (2012) found that rules and regulations encouraging the firms for adoption of new technology tools.

### **6.5.3 Impact of E-Marketing on Iranian Distribution Firms' Performance**

This research found a positive relationship between adoption of E-Marketing and marketing performance of Iranian distribution firms. Particularly the impact on financial and non-financial performance measures.

First, by concerning the organisations' financial performance, company B2 expanded their business to online environment because they were the distributor of petroleum and oil products and was mostly operating international e-trading with other countries. This needed to be involved with online marketing strategies. Without the involvement they could not be able to make any additional profit or sales. Subsequently, they decided to involve with online environment to extend their market size. This particularly were after the sanctions through USA were lifted in 2015 and gave the businesses wider opportunities for doing business. This also maximised the company's sales percentage. In addition, company J's sales and performance were significantly improved, and they could overcome the issues related to travelling and sending the visitors to the stores as there were times, that they needed to travel to far cities for getting orders and receive the payments.

Second, majority of the research participants agreed that adoption and implementation of E-Marketing impact on the non-financial performance of the company. For example, company A and K achieved to the fulfilment of being successful in marketing their products through the internet channel. Selling their products via their website is a noble achievement for the companies as it is not long since they have expanded through online marketing. The companies developed benevolence over online sales reports. Moreover, company X purposely changed the whole company's network systems for increasing the learning and IT knowledge of the employees and gain in profit.

## **6.6 Chapter Summary**

This chapter demonstrated the qualitative phase of the study by conducting interviews. The purpose of the exploratory interviews was to investigate the important factors that influencing the adoption of E-Marketing of Iranian distribution firms and to understand the impact of the adoption on Iranian distribution firms' marketing performance. The participants in this research are Iranian distribution firms' CEO, owners/managers and top managers who are currently involved in online marketing activities in their firms. 43 factors influencing Iranian distribution firms' E-Marketing adoption gained from a systematic review of the literature were utilised as

guidance to understand the research context. However, the exploratory results show only 21 factors appropriate to explain factors influencing Iranian distribution firms to adopt and implement E-Marketing. In this chapter, it was confirmed that this process is vital as of the main goal of the chapter is investigate the influencing factors of E-Marketing adoption of Iranian firms in distribution sector. With the aim of exploring the leverage facts that could be adopted and result into a great usage of E-Marketing as a tool for achieving better marketing performance, and to demonstrate how this study fits alongside prior studies in this context.

This chapter observed and had discussion on the current conditions related to distribution firms in Iran to provide a brief background about them and created a profile of the Iranian distribution firms. This profile is useful in demonstration of the stages of the developments in terms of E-Marketing and provides a clear picture of the context under study. Within chapter six the details in regard of the focus group with exploratory purpose and primary investigation were described in detail. Analysed collected data generated from the interviews, the primary developed survey, and the conducted interviews demonstrated that not all the factors investigated from the systematic review of the literature have a significant impact on the adoption of E-Marketing by Iranian distribution firms.

First, conducted exploratory interviews found the environmental related factors influenced the adoption of E-Marketing of Iranian distribution firms in this research. The factors regarding the environmental characteristics contain: The Business Partner Affiliation; National E-Readiness; and External IT Support or Technology Consultants' Involvement.

Second, the research found factors related to individual characteristics influenced the E-Marketing adoption of Iranian distribution firms. The five important factors relate to individual characteristics include Owner/Manager Support (Involvement); Perceived Ease of Use; Normative Social Influences; Job Fit with PC Use; and Long-Term Consequences of PC Use.

Third, distribution firms in this study due to considering various factors related to organisational characteristics' factors include Organisation's E-Readiness; Organisation's Culture; Receptivity (Attitude) Toward Change; Marketing Capabilities of The Organisation.; Level of Decentralisation; Degree of Formalisation; Employees IT Knowledge; and Management IT Knowledge.

Fourth, the research found factors related to technological characteristics influenced the E-Marketing adoption of Iranian distribution firms. The five important factors relate to technological characteristics include Sufficient Accessibility to Internet Resources; Cost Effects; Perceived Benefits; Compatibility; and Relative Advantage.

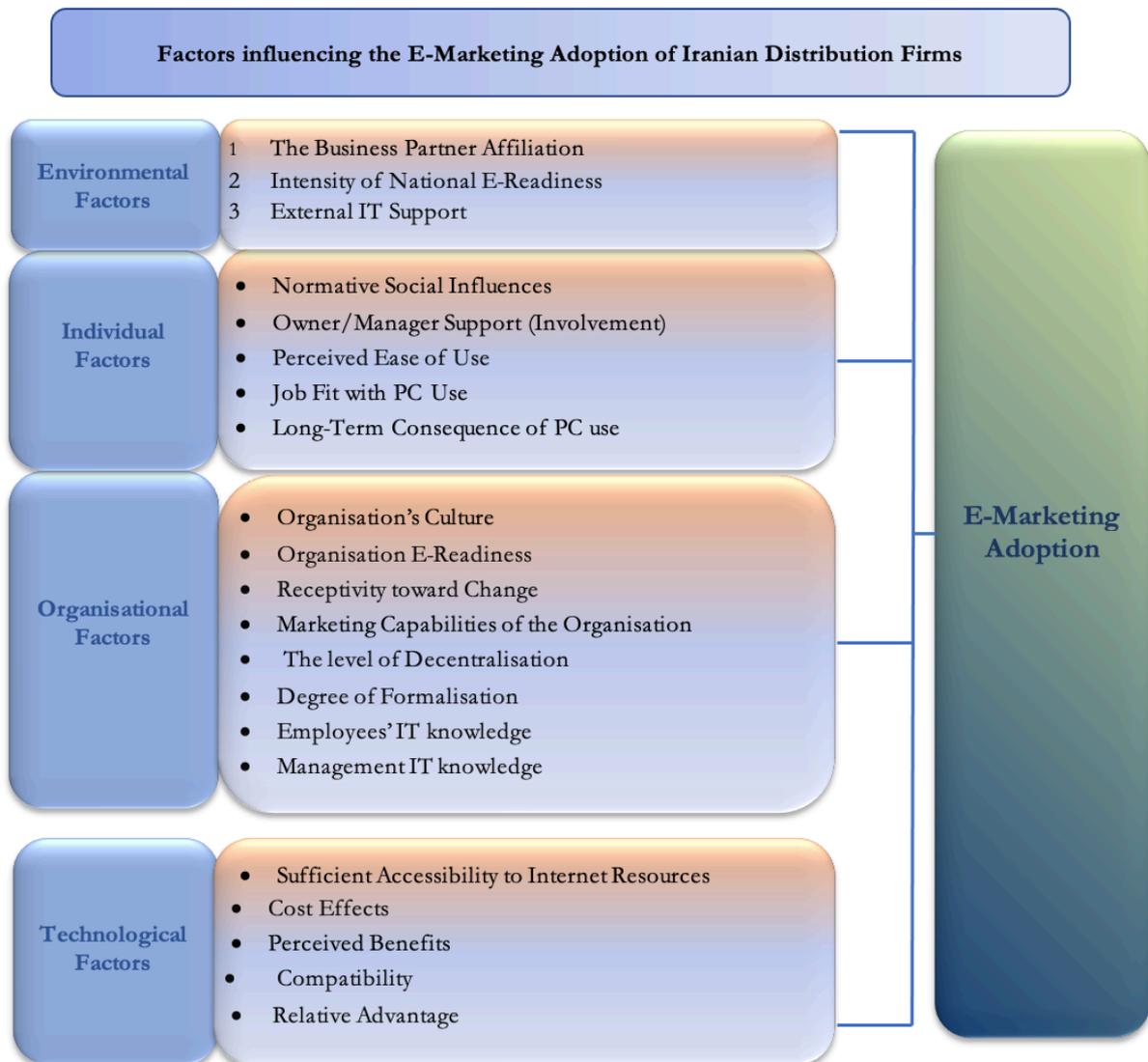
Fifth, the study found no important factor influenced the E-Marketing adoption of Iranian distribution firms in legal and regulatory characteristics and found Lack of Technology Legislation (Copyright protection issue, Transaction issues, Trademark Security Problem) and Guidance as not an influencing factor for adoption of E-Marketing in Iranian distribution firms' context.

Sixth, the research found that there was positive impact of E-Marketing adoption on the Distribution firms' performance. The measures of the performance including financial and non-financial performance such as the growth of the organisations' profitability and sales, the satisfaction of the both employees and owner/manager on the adoption and implementation of E-Marketing, expanding the business to online environment, increased knowledge of employees, and internals resulting from the online activities.

Despite the exploratory nature of the study, conducting the interviews in qualitative phase of the study has shed some light on factors impacting a small section of Iranian distribution firms to adopt E-Marketing, together with the information form the headquarters of Iranian distribution who have already experienced in implementation of E-Marketing is attained. The results supported the findings that suggesting, the determinants of E-Marketing adoption vary according to industrial background; countries interviews conducted; and level of E-Marketing adoption.

In overall, the chapter findings provide a strong base for developing a theoretical framework of examining determinants of Iranian distribution firms' E-Marketing adoption and the impact on marketing performance. The next step is to test this conceptual framework through empirical study for the approval of its validity in describing distribution firms' E-Marketing adoption in Iran. The conceptual framework is illustrated in Figure 6.9. Based on the findings of this exploratory interviews and the conceptual framework, the research hypotheses will be developed in the chapter seven

**Figure 6.9:** Internal and External Factors Influencing Iranian Distribution Firms' E-Marketing Adoption



## **Chapter 7: A Revised Research Framework Based on the Findings of the Exploratory Interviews**

### **7.1 Introduction**

Literature has shown that there is no regularity in classification of influencing factors of E-Marketing adoption due to the variety of the industrial contexts and countries (e.g., Thong, 1999; Al-Somali, 2011; Rahayu, 2015; Shemi *et al.*, 2012; and Rabie, 2013). However, the extent of usage of the factors in some contexts may also be effective in other. The aim of this chapter is to outline a revised research framework based on the findings of exploratory studies that will be underpinning on the prior systematic literature review and the findings of exploratory interviews. The chapter begins with a clear illustration from the statement of research aims and research questions. The modified research aims and questions from the outcomes of exploratory findings are crucial to assure of the entire study works meet the objectives of the research. The needs for a conceptual framework to understand the E-Marketing adoption of Iranian distribution firms' context is then explained. Afterwards, the research variables in regard of the E-Marketing adoption measures, influencing factors of E-Marketing adoption of Iranian distribution firms, and marketing performance measures are explained. Finally, the chapter ends with construction of research hypotheses that will be built the research survey questionnaires.

### **7.2 Research Aims and Questions**

From the systematic review of the literature, this research found several gaps in understanding the factors affecting E-Marketing adoption of Iranian firms in distribution sector. The understanding influencing factors of E-Marketing adoption need to cover whole economic sectors rather than a particular sector and from the Middle Eastern developing countries. The study suggests that adoption and implementation of new technology tools such as E-Marketing is not a lavishness anymore. Regardless of the size and nature of the business, adoption become a crucial matter for survival of all businesses. This is consistent with previous studies such as Rahayu and Day (2015), Rahayu (2015), Alrousan (2014), Muhammad *et al.* (2011), Hassen, Rahim, and Shah (2019), and Shaharuddin *et al.* (2018). They assert that, firms with no internet presence and without having their own web page would face the risk of losing their customers. Conversely, having a website does not a certify toward success since, the possible advantage

only can be attained by tactical planning, IT knowledge, and skills (Ohunmah, 2015; and Shemi, 2012) which means that absence from online environment and E-Marketing practices may lead the businesses toward difficulties in a competitive market. However, having such practices does not provide a competitive advantage and require the firms to utilise more than one E-Marketing tools (e.g., Search Engine Marketing, Mobile Marketing, E-Mail Marketing, etc.) rather than only having internet presence to certify the competitive advantage. Hence, the critical questions are how to gain a proficient deployment of the E-Marketing and other tools? and what need to be done for finding leverage points in the firm strategy which means to combine the physical and cybernetic marketing activities? (El-Gohary, 2009; Abdulhakeem *et al.*, 2017; Aljowaidi, 2015; and Alam and Sayuti, 2011). Accordingly, there is a need to conduct further study in this field in Iran context. Although, there have been prior studies that identified the nature and use of E-Marketing by some scholars (El-Gohary, 2010; Ramsey *et al.*, 2004; and Alavion *et al.*, 2017), only few studies could provide a strong theoretical support for their research. This is because of the exploratory nature of such studies and their dispersed focus on various industries rather than focus on only one specific industry. As such the deal is with potential rather than the certainty of E-Marketing impact. Therefore, there is an essential for a complete research that is statistically significant.

Research is about choosing which questions to ask and making decision about what to investigate to find the answers. The questions and their context affect the choice of research Practices (Nelson *et al.*, 1992). Field and Morse, (1991) and Saunders *et al.* (2009) concur that, the research strategy is determined by the research questions that according to Strauss and Corbin and Strauss (2008) emerge from personal interest or technical literature. The research questions for this study coming from a combination of personal fascination with the Iranian Firms' potential of the internet and the rapid rate of adoption of the medium by businesses (Iran Business Time, 2020). The literature review has identified that very little is understood about the meaning of E-Marketing adoption (see chapter two, Section: 2.6.2). Generally, definitions are very broad in respect of the meaning of E-Marketing concept, the level, and the extent of internet adoption in terms of Web-site activity. Given this lack of conceptual clarity, it was decided that any attempt to research adoption of the E-Marketing, needs in developing an understanding of what aspect of the phenomenon to explore. Marketing via the internet appeared to be an important aspect to explore, as existing works have highlighted this as a significant growth area (Hoffman *et al.*, 1996; and El-Gohary, 2016).

Having decided to look at the internet phenomenon from an organisational perspective, the researcher found that the impact and the extent of factors suggested to affect adoption within a specific orientation is unclear. Consequently, the final decision to study Iranian distribution companies' adoption of the E-Marketing was motivated by 1. the lack of empirical and sector specific research into the subject, and 2. the need to establish research parameters prior to detailed investigation of the research questions. Based on the mentioned research gaps, findings of the literature, and the results of exploratory interviews, it is clear that, there is a need to investigate what are the influencing factors for adoption of E-Marketing and what is the relationship between the factors and the marketing performance of the companies.

The exploratory interviews resulted in the factors impacting Iranian distribution firms' E-Marketing adoption in several categories including environmental, individual, organisational, and technological characteristics. Consequently, this research needs to understand the relationship between these variables and the adoption of the E-Marketing by Iranian distribution firms empirically. The relationship then, will be examined statistically in the developed model of the research as the result of the exploratory findings (refer to the conceptual framework in Figure 7.2). Moreover, this research needs to understand the impacts of the E-Marketing adoption on marketing performance of Iranian distribution firms, due to a very limited number of prior studies in this research context (see chapter two, appendix 1). Therefore, this research will also conduct an empirical statistical investigation on this E-Marketing adoption-performance relationship in model two.

Therefore, this study develops the aims of the research:

- To investigate influencing factors of Iranian distribution firms' E-Marketing adoption in various perspectives including both internal and external factors of distribution firms to conduct marketing activities.
- To examine how the integration of one or more variables (both internal and external factors) will influence Iranian distribution firms' E-Marketing adoption.
- To investigate the different implementation tools of Electronic Marketing used by Iranian distribution firms.
- To measure the impact of E-Marketing adoption on current and future marketing performance concerning financial and non-financial performance.

- To develop a conceptual framework to understand and interpret the relationship between Electronic Marketing adoption and distribution firms' marketing performance.
- To deploy this model to assess the potential of Electronic Marketing for distribution firms in Iran.

This research endeavours to answer four research questions to achieve the aims of the study:

**Q1:** What are the factors that influence the E-Marketing adoption of Iranian distribution firms?

**Q2:** What are the different levels and tools used by Iranian distribution firms to E-Marketing?

**Q3:** What are the external related factors in mediating the relationship between the internal related factors and E-Marketing adoption of Iranian distribution firms?

**Q4:** What are the impacts of E-Marketing adoption and implemented strategies on Iranian distribution firms marketing performance; in regard of financial and non-financial performance?

To answer the first question, this research has reviewed the extant literature systematically. For this study, numerous resources have been reviewed including E-Marketing, Information technology (IT), Customer relationship, Marketing strategies and the main theories of new technology adoption (See Chapter Three). Hence, an integrated model of these theories will be combined to understand the E-Marketing adoption of Iranian distribution firms. The main purpose of the review of these resources, case studies and articles were to identify the variables that may influence the adoption of E-Marketing by Iranian distribution firms. Therefore, from reviewing the previous studies 43 factors has derived related to environmental, individual, organisational, technological, and legal and regulatory characteristics. Afterwards, the study has concluded the exploratory interviews of qualitative phase to purify factors that are appropriate to Iranian firms' context. The results from the exploratory phase found 21 factors suit to describe the E-Marketing adoption of Iranian distribution firms. Though, to develop the validity, this research needs to conduct a statistical examination on these final 21 factors which will be testing by various statistical analysis such as multiple and linear regression with SPSS software.

To answer the second question, several resources and articles, case studies, and empirical research on E-Marketing, mobile marketing, social media marketing, search engine marketing, e-commerce and e-business were reviewed. The findings by reviewing the extant literature identified various tools and levels of E-Marketing implementation. These factors were categorised into two groups namely: E-Marketing tools, and E-Marketing implementation levels. After a major survey of Iranian distribution firms, the appropriate statistical methods will be applied to test the hypotheses related to E-Marketing implementation.

To answer the third question, this research will run a statistical analysis to test and measure the role of external related factors of Iranian firms as mediating factors between the internal related factors and the E-Marketing adoption. The research will employ multivariate investigation via Structural Equation Modelling by using the advanced statistical software called SPSS AMOS.

Finally, to answer the last question resulting the major survey questionnaire of Iranian distribution firms, the impact of E-Marketing adoption on marketing performance of these firms will be measured. The study hypotheses will be examined to identify the significant connotation between the two mentioned variables. Hence, this research will validate the findings from the extant literature in regards of the impacts of E-Marketing on firms, particularly in Iran context. The research will conduct analysis such as linear regression by using SPSS software to validate the findings from the reviews of extant literature.

### **7.3 The Need for Conceptual Framework to Understand the E-Marketing Adoption of Iranian Distribution Firms**

The finding from systematic review of the literature in chapter four demonstrated that the factors of E-Marketing adoption among Iranian distribution firms are diverse depending on the nature of the industry, country of research, size of the company, and finally time precocity. As this study aims to understand the factors influencing Iranian distribution firms' decision to involve in online activities particularly regarding to E-Marketing and its implementation through its various tools such as mobile marketing, search engine marketing, social media marketing, etc. It is crucial to develop a new research framework for a better understanding of the research area.

The wide adoption of internet not only applies to individuals, but also to a wider range of businesses and organisations of all natures. The most prominent aspect of the organisational

adoption of E-Marketing is the use of it to conduct e-transactions or at the very least to facilitate the process of traditional transactions. despite the encouraging development of internet adoption, it is also reported that only less than 25 percent of firms were conducted online activities in developing countries according to a survey from CNNIC (2019). Here, it is important to understand the influencing factors that encourage or dis-courage the businesses for adoption of E-Marketing. Although there are many previous studies that attempted to understand the influencing factors of E-Marketing adoption, the previous studies are diverse and in different contexts. Moreover, as discussed earlier, the number of studies conducted in this field were either descriptive or theoretical and there was a lack of concrete research models as a guide for future researchers in this area of research.

Although there have been numerous studies attempt to identify the nature and usage of the new technology adoption like: Abou-Shouk (2012) has conducted the research in Egyptian travel agents for e-commerce adoption, Al-Somali (2011) B2B adoption in Saudi Arabia, Alsaif (2013) e-government in Saudi Arabia, Ohunmah (2015) E-payment in Ngeria, Awiagah *et al.* (2015) E-Marketing in Ghana for SMEs, Rabie (2013) E-Commerce in Egypt for SMEs, Wahieb (2016) social media marketing in Egypt, Shemi (2012) E-commerce adoption of SMEs in Botswana, Rahayu (2015) e-commerce for SMEs in Indonesia, Helal (2017) e-commerce and social media marketing in Saudi arabia, Mrabet (2018) e-commerce in Libyan organisations, Kartiwi *et al.* (2018), and Turki (2018) Mobile commerce in Saudi for Airline industry. Only few of these studies could provide a strong theoretical support for their studies.

Moreover, the research in Iran context is scant and most of the conducted studies focused only on SME enterprises. For example, Shemi (2012) studied on the influencing factors of e-commerce adoption among Botswanan SMEs. Nevertheless, the research conducted by Shemi (*ibid*) has a limitation regarding the tested variables, theories, and research method and the theory related to the innovation perspective was excluded which reduced the understanding of individual's decision about the innovation adoption process by firms' owner/manager. Also, the researcher (*ibid*) has not applied the statistical quantitative analysis and the outcomes are from the exploratory interviews. Hence, this research finds that there is a need to employ an advanced statistical analysis to increase the validity of the results as well as developing a comprehensive theoretical framework for a better understanding and interpreting the use of E-Marketing by Iranian firms in distribution context.

Moreover, the previous studies conducted in Iran, lack the understanding in regard of the performance, resulted from E-Marketing adoption. There was only one research was found that conducted in understanding the impacts of E-Marketing adoption on Iranian manufacturing companies' marketing performance (Mohtaramzadeh *et al.*, 2018). However, the conducted study by Mohtaramzadeh *et al.* (ibid) was limited in terms of sample size, where they examined only 106 questionnaires survey in the study of E-Marketing of Iranian manufacturing firms.

This research suggests that implementing E-Marketing by firms in developing countries will increase the proficiency of the economics. Moreover, the E-Marketing implementation in developing countries context is a matter of life or death. As investigating and testing the influencing factors that have impact on the adoption of E-Marketing as well as measuring the impact of the adoption on marketing performance of firms in developing countries, have a better impact on the financial performance of such firms. Therefore, based on the prior research conducted in developing countries context this research suggests that: there is a need for development of a new research framework that covers all internal and external related factors of the firms in developing countries and examining the impacts of E-Marketing adoption on the Iranian firms in distribution sector.

## **7.4 Research Variables**

To answer the research questions this study has developed a theoretical Framework that is demonstrated in figure 7.2. The developed framework has contained of two models: i) the first model is to understand the relationship between the influencing factors of E-Marketing adoption among Iranian distribution firms and E-Marketing adoption; and ii) the second model is to understand the impact of E-Marketing implementation on Iranian distribution firms marketing performance (refer to figure 7.2). The research consists of several measures to build the framework. The measures that have been used in the first model comprise of factors influencing distribution firms' E-Marketing adoption that based on the findings from the exploratory studies. On the other hand, the measures form the second model related to E-Marketing adoption and marketing performance that now will be discussed in the following sections of this chapter.

### **7.4.1 Impact of E-marketing Adoption on Firms Performance Variable**

Organisations need to consider the E-Marketing as a strategic tool to develop their marketing strategies and to boost performance in the competitive market. E-Marketing is not only

changing the technology and the infrastructure of the firm but also contains other significant changes in the organisation's policies, structure, performance metrics, and other business procedures (Almajali *et al.* 2016). The number of organisations that have invested in new technologies increased to remain competitive in their given industries. This increased investment makes the investigation of technology adoption and firm performance relationship particularly stimulating (Mazzarol, 2015). Given the financial stakes involved, determining the impact of technology adoption on organisational performance has been and continues to be an important research concern for both academics and practitioners (El-Gohary, 2016). On the other hand, although previous studies have explored the factors that are related to the adoption of E-Marketing by organisations (Chong, Bian, and Zhang, 2016; Kazungu, Panga, and Mchopa, 2015), there is a lack of empirical research examining the relationship of organisational technological adoption on firm performance and little research has been undertaken to determine the impact of IT adoption on firms' performance.

There appears to be an implicit assumption in much of the literature that the adoption of new technology is intended to contribute to the performance of the adopting organisation (Rahayu,2015). The literature for instance, has exposed that firms' main purpose on IT investing is to achieve to a better firm performance (Skudiene, Auruskeviciene, and Sukeviciute, 2015). This partially describes the extensive importance among scholars to research the consequences of these adoptions rather than only the adoption itself and finding the influencing factors of the adoption. Despite the positive assertions of new technologies on performance, firms' responses towards these claims have been rather thoughtful. This shows the slow adoption rate and the "wait-and-see" approach adopted by various firms, regardless of the highlighted benefits and the wide publicity of the technology which is due to the "productivity paradox" issue (Rahayu and Day,2015) that firms are looking for successful firms that gained the assured benefits resulted from the adoption. On the other hand, the recent failures of various ".coms", suggest errors in this view of the Internet's transformational impact (El-Gohary, 2016). Therefore, based on the following literature, there appears to be an imperative justification for an empirical examination on the recommended relationship of E-Marketing adoption and firms' performance, as the current assertion of E-Marketing benefits have been subjective in the marketing literature.

Performance represents a difficult concept in terms of both definition and quantification. It was defined as an output of activity and the appropriate measure selected to assess corporate performance is considered according to the organisation type and objectives of evaluation (Mahadi, and Rahman, 2018; Chong, Man, and Kim, 2018; and Sheikh, Shahzad, and Ishak, 2017). Yet, there is no agreement on the valid constitutes of performance criteria and the relationship of E-Marketing adoption-marketing performance remains vague. Thus, this research measures the impact of E-Marketing adoption on the firm`s marketing performance. The following section describes the marketing performance measures that will be adopted to test the relationship between the adoption of E-Marketing and its impact on current firm`s performance and future firm`s performance.

#### **7.4.1.1 Distribution Firm Marketing Performance**

An established falsification of marketing professional is that there is a fascination on investment, yet no passion on investment on evaluation of the outcomes (Rahayu, 2015). Thus, Marketers` failure on explanation for the function`s influence on firms` performance has been found as a key reason on leading the firms toward loss of stature within company (Kumar, 2008; and Bharadwaj *et al.*, 2013). Marketing performance measurement remains to be a large and growing concern for marketing scholars and managers (Rahayu, 2015). This fact has led marketers to show an almost insatiable appetite for marketing metrics and other measurement data (Mathews *et al.*, 2019; Setiowat, 2015, and Brodie and Azam, 2014). The review of the literature has failed to unearth a clear and explicit definition of the term `marketing performance`. The only agreement that has been reached in both strategic (Morgan and Strong 2003) and marketing literature (Setiowat, 2015, Ussahawanitchakit, and Jhundra-indra, 2015, and Iddris and Ibrahim, 2015) is that marketing performance is multidimensional in nature. Setiowat (2015) points out on the lack of precision in the terminology used in describing marketing performance and suggested the adoption of the word `metric` to capture a top-level measure of marketing performance.

The review of extant literature indicates three different relationships between E-Marketing and performance discussed by Breznik (2012), and Mihalic *et al.* (2015). First, some studies (e.g., Lee *et al.*, 2003; 2007; Piccoli, 2008; and Karadag and Dumanoglu, 2009) consider different E-Marketing tools to be significant competitive advantage resources. Second, some researchers claim that there is no significant influence from E-Marketing investment on the value or the marketing performance of the company (Uzoka, Shemi, and Seleka, 2007). In the third view

(Karakaya and Stahl, 2009; Warner, 1987; and Coviello *et al.*, 2006) internet has a negative influence on business performance proposing that in a post-e-marketing implementation period, organisations regularly experience economical declines either in market share or profit.

Based on the importance of measuring the marketing performance of distribution firms and by consideration of the purpose of the study to determine the relationship between the adoption of E-Marketing by distribution firms (as an independent variable of the study) and marketing performance of the distribution firms (as a main dependent variable in the research), it is assumed that a good implementation of E-Marketing would increase the level of marketing performance within the distribution firms. This is consistent with studies of El-Gohary (2009), and Rahayu (2015) who show that the IT is described as a tool for simplifying the efforts for sales force and lead to a greater level of performance and productivity.

Furthermore, E-Marketing adoption by distribution firms can increase the firms' marketing performance through reduction of costs that result from use of internet technology and E-Marketing tools (e.g., Mobile, and Smart phone, E-mail, social media etc.) to eliminate the traditional marketing strategies. The cost reduction can appear in various forms such as: cost of delivery, travel time, period of routine service jobs, customers after sale services, overheads, and the number of employed staff (Magno, Cassia, and Bruni, 2017; Rahayu, 2015; Adam, Mahadi, and Rahman, 2018; Chong, Man, and Kim, 2018; and Sheikh, Shahzad, and Ishak, 2017).

#### **7.4.1.2 Marketing Performance Measures**

Although measuring marketing and business performance metrics are important, there is a little evidence on the metrics used to assess marketing performance and efficiency. Within the study context, El-Gohary (2016) investigated one thousands of seven different marketing journals and found that only 12 percent of the journal articles studied on the evaluation of marketing implementation results. Marketing managers in business establishments are under increasing pressure to demonstrate the contribution of their departments to the overall performance of their institutions (Gawankar *et al.*, 2018; Abebe, 2014; Garg and Choeu, 2015; Jahanshahi, *et al.*, 2012; and Abebe 2014). The challenge here is to stand in the interpretation of the increasing size of marketing activity expenses alongside the need to demonstrate the efficiency and the effectiveness of these activities (Abebe, 2014). To meet these challenges, marketing departments are required to measure their performance and subsequently to reveal their

contribution to the overall business performance (Rahayu and Day,2015). The trend of measuring marketing performance seems to be a worldwide issue (Iddris and Ibrahim, 2015).

Scholars, divided marketing performance measurement into three streams: i) marketing efficiency measurement (Morgan *et al.*, 2003, and Rust *et al.*, 2006); ii) recognising the metrics in use (Barwise and Farley, and 2004; Winer, 2000); and iii) brand equity measurement (Aaker and Jacobson, 200, and Ailawadi *et al.*, 2002). However, there is a lack of study on marketing metrics due to the difficulty in distinguishing the short-term impacts to the long-term performance, the issues related to the process of measuring the brand equity, and the high focus on financial measures (Garg and Choeu, 2015; Jahanshahi, *et al.*, 2012; and Abebe 2014). When reviewed the extant literature on marketing performance measures, many marketing performance metrics been explored but the most common marketing metrics found were market share, sales, purchase intention and profitability. The review of literature shows that, there is a lack of consistency regarding research findings across different studies. Previous reports have adopted an expansive range of performance measures, varying from results achieved in the product markets (sales growth) to measures such as: return on assets (ROA), return on sales (ROS) and return on equity (ROE) (see table 7.1).

Zeng *et al.* (2009) argued that using a performance indicator is reliant on the research's conditions. In their research it was much more appropriate to assess financial performance by adopting ROA rather than ROI. Although, various scholars have used ROA as an essential metric for measuring the company's financial performance and there were other studies discussed that return on sales is better not to be excluded from the performance measurement research. Return on assets has also confirmed to be reliable measure when considering the age of the company. For instance, since most of the new established firms engage with IT and new developed technology systems, those companies tend do the investment on latest facilities and greater fixed assets (Yeoh, 2014). There are many reasons for adopting return on assets as a performance indicator. For instance, Hsu *et al.* (2013) used Return on Assets as a dependent variable in examining manager's attributes as a moderating effect in the adoption-performance relationship.

**Table 21** The Development of Marketing Performance Measures

| Stage   | Measures                                  | No. of Studies    |
|---|---|-------------------|
| <b>Firm's Marketing Productivity Output Measures (Financial Measures)</b> | 1) Profitability.                         | <b>14 Studies</b> |
|   | 2) Return on Assets (ROA)                 | <b>14 Studies</b> |
|   | 3) Return on Equity (ROE).                | <b>8 Studies</b>  |
|   | 4) Return on Investment (ROI)             | <b>5 Studies</b>  |
|   | 5) Sales Revenue (Unit and Value).        | <b>4 Studies</b>  |
|   | 6) Cash Flow.                             | <b>5 Studies</b>  |
|   | 7) Market Share.                          | <b>8 Studies</b>  |
| <b>Non-Financial Output Measures</b>                                      | 8) Product/Service Quality.               | <b>4 Studies</b>  |
|   | 9) Innovativeness/Adaptability.           | <b>4 Studies</b>  |
|   | 10) Customer Satisfaction.                | <b>7 Studies</b>  |
|   | 11) Customer Loyalty/ Customer retention. | <b>10 Studies</b> |
|   | 12) Brand Equity.                         | <b>4 Studies</b>  |
| <b>Input Measures</b>   | 13) Marketing Implementation.             | <b>7 Studies</b>  |
|   | 14) Market Orientation.                   | <b>13 Studies</b> |
|   | 15) Market Based Assets.                  | <b>3 Studies</b>  |
| <b>Multiple Measures</b>  | 16) Productivity                          | <b>5 Studies</b>  |
|   | 17) Effectiveness                         | <b>10 Studies</b> |
|   | 18) Multivariate Examination              | <b>3 Studies</b>  |

**Source:** Developed by Researcher

Return on sales has been discussed by various studies on practical grounds that managers/owners are reluctant to reveal the sensitive company's information and it is usually difficult to gain reliable information (Yeoh, 2014; Karakaya and Stahl, 2009; and Musteen *et al.*, 2013). Despite its intrinsic value, this measure has been criticised by many academics on realistic grounds that CEOs are unwell to reveal this sensitive evidence and it is often difficult to gain reliable information (Musteen *et al.*, 2013).

Return on investment (ROI) is another important financial measure used by many scholars. For example, McDougall and Oviatt (1996) assert that, companies that had improved sales showed greater performance in regard of return on investment and comparative market share. Chao and Kumar (2010) have tested this indicator where the results did not demonstrate a high relationship to financial performance measurement. Chao and Kumar (2010) and McDougall and Oviatt (1996) highlighted that corporations that had improved sales showed greater performance regarding ROI and market share. This financial performance indicator has been revised in surd by Chao and Kumar (2010), but it did not indicate a great correlation to performance measurement. Finally, a few numbers of prior reports used Return on Equity as a performance indicator. For example, Zahra *et al.* (2000) employed ROE since, it was measured as a main indicator of new technology innovation performance by some previous academics.

Moreover, Chao and Kumar (2010) gathered all the financial data of three years from online information sources for additional analysis of ROE. However, they found that there is no strong correlation between ROE and performance.

Pont and Shaw (2003) classified the marketing metrics as either financial or non-financial. This classification is through using an analysis of the empirical literature of the period from 1991-1995. They (ibid) assert that academics were depended on 25 measures to assess marketing performance. The study finding is according to the results from 149 research participants. Table 7.2 demonstrates the measures.

**Table 22:** Classification of Marketing Performance Measures

| Classification       | Performance Measures  |
|----------------------|---|
| <b>Financial</b>     | <ul style="list-style-type: none"> <li>• Sales Growth,</li> <li>• Return on Investment (ROI),</li> <li>• Market Share,</li> <li>• Return on Assets / Profitability,</li> <li>• Return on Sales,</li> <li>• Gross Operative Revenue,</li> <li>• Dollar share of the Foreign Market,</li> <li>• Return on Capital.</li> </ul>   |
| <b>Non-Financial</b> | <ul style="list-style-type: none"> <li>• Product/Service Quality,</li> <li>• Customer/Supplier/Company Satisfaction,</li> <li>• Success Rate of New Service/Product,</li> <li>• Overall Firm's Performance,</li> <li>• Customer Retention/Loyalty,</li> <li>• General Performance of Competitors,</li> <li>• Satisfaction with Performance,</li> <li>• Brand Awareness,</li> <li>• Customer Complaints,</li> <li>• Expectations Attained by Firm,</li> <li>• Frequency of Website's Visitors,</li> <li>• Gaining New Customers,</li> <li>• Number of Volunteers,</li> <li>• Employee Turnover.</li> </ul> |

**Source:** Adopted from Pont and Shaw (2003)

As a result of the review on measures of marketing performance, there were few studies attempt to categorise these measures. Moreover, Morgan *et al.*, (2003) highlighted three measurement orientations: i) customer-focused metrics; (ii) competitor-centred metrics; and (iii) internally oriented metrics. Petersen *et al.* (2009, p.97) categorise marketing metrics into seven groups; (1) Brand value metrics; (2) Customer value metrics; (3) Word of mouth and referral value

metrics; (4) Retention and acquisition metrics; (5) Cross-buying and up-buying metrics; (6) multi-channel shopping metrics; and (7) Product return metrics. As can be seen from the previous review, financial metrics are the most adopted measures by studies to assess marketing performance (Clark,1999; Clark and Ambler, 2001; Ambler and Riley ,2000; Ambler and Kokkinaki, 1999; Morgan *et al.* ,2003; Pont and Show ,2003 ; Popa *et al.*, 2018; Teo and Pian, 2003; Ambler *et al.* ,2004 ; Barwise and Farley, 2004; Zhu and Kraemer, 2005 ; Tippins and Sohi, 2003; Rust *et al.* ,2004; Chong, Man, and Kim, 2018; El-Gohary,2009; Coviello *et al.*, 2006; and O’Sullivan and Abela , 2007).

Although majority of studies focused on financial performance measures, this research has found various potentials of non-financial performance measures for development of research framework (Garg and Choeu, 2015; Jahanshahi, *et al.*, 2012; MacGregor and Vrazalic, 2006; Rahayu, 2015; Hussein, 2010; Abebe, 2014; Setiowat, 2015; Hussein, 2010; Bharadwaj *et al.*, 2013; Bayrak, 2019; Klatt *et al.*, 2011; Clark, 1999; Hacıoglu and Gok, 2013; andNguyen *et al.*, 2015). These non-financial performance measures are: i) Efficiency performance; ii) Knowledge performance; iii) Realisation of firm’s objectives performance; and iv) Operational performance measures.

### Efficiency Performance

Efficiency performance is related to how long and how effective a task completed within the organisation. Firms, by improving efficiency performance be able to reduce costs, gain more customers and improve the competitiveness. Yeoh *et al.* (2014) adopted non-financial measures to test new service performance implications through online marketing tools. The reason for measuring firm’s performance with non-financial metrics was a great degree of unwillingness from owner/managers of the business to expose firm’s confidential data and the necessity for gaining new customers. They (ibid) also, employed the development of firm’s production and managerial aptitudes as a point of performance along with other individual metrics. The study found a significant and positive relationship between the involvement of business in online activities and improvement of the firm’s productivity, gaining customers and managerial aptitudes. To confirm their investigation, they deployed performance metrics such as business process enhancement, quality improvement of service/product, change in customer ordering, order accuracy, constant availability for customers, change in customer orders, better customer service, access to more customer, new service development, and ability to compete to wider market. Furthermore, in a study conducted by Chong, Man, and Kim (2018); Tippins and Sohi,

(2003); El-Gohary (2009); Magno, Cassia, and Bruni (2017); Al-Azzam (2017); DeFranco, Morosan, and Hua (2017); Ali and Kaldeen (2017); Shaytura *et al.* (2017); Farida, Naryoso, and Yuniawan, (2017); Chanthinok, Ussahawanitchakit, and Jhundra-indra (2015); Garg and Choeu (2015); Iddris and Ibrahim (2015); Bharadwaj *et al.* (2013); and Abebe (2014) on investment of firms in new technology and its impact on organisation's performance, measured metrics such as support linkage with suppliers and partnership in the industry, improved collaboration and partnership among firms, availability of expertise regardless of physical location, improved communications, faster delivery, better service and support from supplier, and delivery reliability have been deployed. The studies (*ibid*) found all these measures have a positive and significant relationship when apply new technology tools on firm's marketing strategies and improved the efficiency performance of the firm as well as reduce costs. However, these measures have not underpinned by any theory or prior models in the study.

#### Knowledge Performance

Knowledge performance is the knowledge gained from adoption of new technology within the organisation. The measures related to the knowledge performance has been tested in some previous studies such as Garg and Choeu (2015); Jahanshahi, *et al.* (2012); Fletcher and Harris (2012); Setiowat (2015); MacGregor and Vrazalic (2006), and Ibeh and Kasem (2014). The knowledge gaining comprises of marketing, technological, and IT related knowledge. For instance, in the study conducted by Ibeh and Kasem (2014) on the impact of new technology adoption on the firms' gaining IT learning. Based on the study finding, IT and new technology knowledge is beneficial for managers/owner who are unfamiliar with challenges of online activities for business and will enhance their capabilities. They (*ibid*) included that, firms' online marketing related activities increase learning opportunities including improved information on new market or customer target, lead to better awareness from business environment, and liability of adding new technology-based services. Pangarkar (2008) assert that, participants in the study suggested that acquiring new knowledge because of online activities was a main advantage for adoption of E-Marketing of firms. In the study, there were list of dependent variables involving knowledge acquired as the outcome of new technology adoption was examined to expose a significant and positive relationship between dependent and independent variables.

### Realisation of Firm's Objectives

Firms' objectives of E-Marketing implementation strategy undertaken by company's manager/owner may vary. For instance, some decision may be tactical while others may be reactive. A usual tactical objective is to expand wider market opportunities through involvement on online marketing and strengthening the capability for searching on new resources. On the other hand, the reactive decisions may consist of the necessity to help main customer/employees on new network system and strategy (Cavusgil *et al.*, 2011). They (ibid) suggested that there are nine motivations for companies to implement E-Marketing including: i) looking for opportunities for expand the business through market expansion; ii) earning more profits; iii) developing new product/services, concepts or new business techniques; iv) supporting the existing and main customers that involved with the new technology replacement; v) Getting closer to supplies; vi) getting access to lower costs or greater value features of production; vii) improvement of economy of scale in obtaining Research and development, production and marketing; viii) challenging the industry competitors more efficiently counteract the extension of competition in the home market; and ix) investment on a possibly satisfying liaison with new partner nationally and internationally. Consequently, another study conducted by Musteen *et al.* (2013), employed the understanding of goals as an indicator for measuring E-Marketing implementation's performance. This non-financial performance variable is not based on any previous model or theory. Therefore, in this study it is essential to validate its suitability as a performance metric.

Lu (2006) in his study tested the impact of technology adoption in firms on the sustainability and profitability of the business with other partners and found that, new technology implementation has a positive impact on the longevity of the business with the partnerships but negative impact on the profitability. Yet, the research has focused on only two indicators for performance, and it has been confronted by other scholars (Popa, Soto-Acosta, and Perez-Gonzalez, 2018; Qashou, 2018; Rahayu, 2015; Abebe, 2014; and Shahzad, and Ishaq, 2017) who suggest that performance is a compound multi-dimensional concept. On the other hand, the indicator has confirmed to be significant and can be applied in future study.

### Operational Performance

Operational performance is related to the metrics that been measured alongside regular indicators of productivity and effectiveness. Majority of scholars on retailer, supply chain, and distributions have focused on operational performance indicators such as production costs, transportation, time, technical errors, and profit and has ignored the environmental aspects

(Tsiotsou and Vlachopoulou, 2011; Brodie *et al.*, 2007; Hacioglu and Gok, 2013; Nguyen *et al.*, 2015; Abebe, 2014; Garg and Aydiner, *et al.*, 2019; OSullivan and Abela 2017; and Choeu, 2015) studied the relationship between firms' technology adoption and firms' operational performance with multi-dimensional perspective. They found that different distribution performers have different exclusive impact on different operational performance measures when adopt IT tools. Both tactical long-term liaison and logistics combination have positive relationship with time of delivery, geographical restrictions, flexibility, costs, and inter-company communications. Van Der Vaart and Van Donk (2008) in their study recommended that ingratiation of marketing strategies of firms, delivers benefits to operational performance. The implementation ties all customers and suppliers' activities together in a system with distributors and simultaneously reduce the total cost of distribution, technical disruptions, and geographical boundaries, as well as gain the desired customer level. Based on the above discussion, this study suggests that implementation of new technology tools such as E-Marketing in relationship with customers and suppliers have positive impact on operational performance such as time reduction in service jobs, delivery, and elimination of geographical boundaries, reduce costs and technical errors and improve inter-company communications.

This study discusses that it is vital to consider both financial and non-financial measures, particularly the consumer related metrics that is usually measuring the customer retention/loyalty, satisfaction, new gained customers, and customer loss. Marketing managers need to prioritise these measures when measuring marketing performance (Zahay and Griffin 2010). There are two types of marketing performance measures found in the previous studies: i) financial; and ii) non-financial (refer to table 7.3). Although, prior scholars have broadly argued these measures, the lack of consistency is evident in term of study findings across various articles. Pangarkar (2008) discusses that previous studies have deployed a wide variety of performance measures, varying from results attained in the service/goods markets (e.g. profitability, growth in sales) to financial measures such as Return on Investment (ROI), Return on Assets (ROE), etc. as well as, marketing related measures.

**Table 7.3:**Marketing Performance Measures

| Type                 | Performance Measures  | Author (s)   | Total No. of Articles (f) |
|----------------------|---|--|---------------------------|
| <b>Financial</b>     | 1. Return on Investment (ROI).  | (Chao and Kumar, 2010; McDougall and Oviatt, 1996; Hoffman, and Fodor, 2010; Grant, 2012; Oviatt, 1996; Zahra <i>et al.</i> , 2000)  | 9                         |
|                      | 2. Return on Sales (ROS)/Total Sales Growth.  | (Feder, 1965; Qian, 2002; Choi and Mueller, 1984; Musteen <i>et al.</i> , 2013; Yeoh, 2014; Lu and Beamish, 2001)  | 7                         |
|                      | 3. Return on Assets (ROA).  | (Dandago <i>et al.</i> ,2012; Aduda and Kingoo,2012; Najjar,2013; Onay and Ozsoz, 2013; Pangarkar, 2008; Hsu <i>et al.</i> , 2013; Chao and Kumar, 2010; Pangarkar, 2008; Farahani and Khansoz, 2014; Zeng <i>et al.</i> , 2009; Yeoh, 2014; Iddris and Ibrahim, 2015)   | 15                        |
|                      | 4. Return on Equity (ROE).  | (Westhead <i>et al.</i> , 2004; Zahra <i>et al.</i> , 2000; Chandler and Hanks, 1993; Zahra, 1996; Najjar, 2013; Farahani and Khansoz, 2014; Agyci-Mensah, 2011; Onay and Ozsoz, 2013; McDougall and Oviatt, 1996)   | 10                        |
| <b>Non-Financial</b> | 5. Increase of the Firm's Efficiency and Managerial Performance.  | (Yeoh <i>et al.</i> , 2014; Clark, 1999; Garg and Choeru, 2015; Iddris and Ibrahim, 2015; Venkatraman and Zaheer, 1990; Abebe, 2014; Jahanshahi, <i>et al.</i> , 2012; Bharadwaj <i>et al.</i> , 2013; Chong, Man, and Kim, 2018; Al-Azzam, 2017; Dhir and Dhir, 2018; DeFranco, Morosan, and Hua, 2017; Ali and Kaldeen, 2017; Farida, Naryoso, and Yuniawan, 2017; Chanthinok, Ussahawanitchakit, and Jhundra-indra, 2015; Tippins and Sohi, 2003; El-Gohary, 2009; Magno, Cassia, and Bruni, 2017).                                       | 23                        |
|                      | 6. Operational Performance.   | (Meixell and Gargeya, 2005; OSullivan and Abela 2017; Paksoy <i>et al.</i> , 2011; Prajogo <i>et al.</i> , 2012; Van Der Vaart and Van Donk, 2008; Tsiotsou and Vlachopoulou, 2011; Brodie <i>et al.</i> , 2007; Coviello, 2006; Rahayu, 2015; Kraemer, 2002; Daniel and Wilson, 2002; Choeru, 2015; Abebe, 2014; Garg and Aydiner, <i>et al.</i> , 2019; Nguyen <i>et al.</i> , 2015; Hacioglu and Gok,2013; Ali and Kaldeen, 2017; Hussein, 2010; Venkatraman and Zaheer, 1990; Uzoka, Shemi, and Seleka, 2007; Karakaya and Stahl, 2009). | 25                        |
|                      | 7. Realisation of Firm's Objectives.  | (Lu, 2006; Venkataraman and Ramanujam, 1986; Musteen <i>et al.</i> , 2013; Bayrak, 2015; Klatt <i>et al.</i> , 2011; Qashou, 2017; Kraemer, 2002; Daniel and Wilson, 2002; Choeru, 2015; Abebe, 2014; Bayrak, 2017; Karakaya and Stahl, 2009; Adam, Mahadi, and Rahman, 2018; Popa, Soto-Acosta, and Perez-Gonzalez, 2018).  | 14                        |
|                      | 8. Knowledge Acquired due to Online Involvement within Marketing Activities, Including: Technological and Marketing Learning. | (Garg and Choeru, 2015; Jahanshahi, <i>et al.</i> , 2012; Ibeh and Kasem, 2014; Pangarkar, 2008; Kraemer <i>et al.</i> , 2002, Fletcher and Harris, 2012; Rahayu,2015; MacGregor and Vrazalic, 2006; Setiowat, 2015).  | 13                        |

Source: The researcher

As can be seen from the Table 7.3, it is remarkable that operational and efficiency measures were the most popular performance measurement (f=25 articles) and (f=23 articles) respectively. This is because of the high importance of collaboration in the intra and inter organizational in marketing practices (Schramm-Klein and Morschett, 2006). Return on Assets (ROA) is the third highest performance measures deployed in previous studies (f = 15 articles). According to Hsu *et al.* (2013), the rationale of using ROA is to find how the firm is productive and effectual in converting the budget it invests in innovation technology into net income. The fourth and fifth highest performance measure used in previous studies is realisation of firm's objectives (f=14 articles) and knowledge acquired due to online involvement within marketing activities, including: technological and marketing learning (f=13 articles).

However, the ROE, ROI and ROS found out that less studies measured within the study context. This is because the ROE and ROI are sensitive information that firms' hardly to reveal to researchers (Yeoh, 2014). Therefore, both financial and non-financial performance used in this study as these metrics help managers/owner of firms to attain a wider insight on evaluating and comparing their performance (Chong, 2008).

#### **7.4.1.3 E-Marketing Performance Measures**

The role of online marketing in a company's marketing strategy has been increasing in the industrial sector as this proved by industrial company's high investments in online marketing activities, that account estimably 26 percent of industrial organisation's total marketing budget (Jarvinen and Karjaluoto, 2015). Moreover, due to the cost value and significant changes in consumer behaviour, investments in online marketing tools determined by the fact that the outcomes from adoption of this tool is easier to measure in compare with traditional marketing techniques (Hennig *et al.* 2010). Since customers' interaction with companies is gradually increasing through internet channels, marketing managers have realised the necessity to study on these interactions and to measure and evaluate performance (Chaffey and Patron, 2012).

E-Marketing performance can be assessed not only by relying on sales, but also by some other metrics. Within this field, findings from study by Bondra and Davis (1996) showed that the metrics of IT performance such as E-Marketing and its other tools need to be allied to the purpose that is achievable through the request by marketing and sales management. It has been found in the literature that sales, market share, profit, ROI, ROA, after sale services to

customers, customer retention and satisfaction had been used either individually or in combinations in evaluation of marketing performance (Barua and Mukhopadhyay, 2000; and Chi and Gursoy, 2009). However, E-Marketing tools (mobile, social media, intranet) are extremely dynamic tools that can be deployed in both direct sales channel and as a collaborative communication tool. Subsequently, these tools may impact marketing and sales implementation in two methods: i) Impact directly throughout direct sales; and ii) Impact indirectly throughout supporting the firm relationships with its own customers that can lead to greater levels of customers' satisfaction and form a better brand loyalty interaction (Poon and Swatman, 1999).

Furthermore, if the process of evaluating the ordinary marketing performance (traditional) is challenging, this means that the methods of assessing the E-Marketing performance would be even more challenging and would need a different perspective. Since, online marketplace is accessible, informal, and collaborative and it shares the difficulty of transforming visitors into consumers or forecasts customers with its environment. This online marketplace is a cybernetic environment; this feature could influence the assessment of marketing performance (DeFranco, Morosan, and Hua, 2017). For these reasons, having an effective E-Marketing performance measures are not only required but also vital. Hence, the common arguments among the scholars together with traditional marketing performance metrics have focused on the following metrics (Robinson, 2020):

If through the website:

- Traffic (Number of customers, visit the website).
- Duration and number of visits.
- Conversions (When users turn into customers).
- Bounce rate (Where the visitors leave the website after only browse on one page).
- Frequency of returning visitors.
- Interactions of visitors on the website.
- Organic landing pages (To understand if the webpage appears on the first page of search engine when customers search for keywords).
- Webpage loading duration.
- Visitors' demographics.
- Search trends. (SEO strategy and keywords).

If through social media:

- Conversions.
- Demographics.
- Engagement (Users' interactions with the page's content).

- Actions (Number of users where click on the content and “call to action” buttons).
- Page screenings (How many of the user’s hover over the page before clicking).

If through E-mail Marketing:

- Open rates (How many customers open the email).
- Number of click on the links within the email (Click Through).
- Frequency of unsubscribes.
- Hard and soft bounces (Number of emails that have sent to e-mail address that no longer exist/ Number of emails that have sent to full inbox).
- Rate of e-mail delivery.
- Incomes per click

Majority of the arguments were linked with metrics related to the duration of the visits on website, number of visitors (traffic), and number of visits afterwards that convert the customers to users and end with sales value, transactions, and payments. Conversely, Conversion rate is gradually become more recognised metric of E-Marketing performance (Keegan and Rowley, 2017). Considering that conversion rate, number of website’s visitor, sales value is the most commonly used metrics to assess the marketing performance related to search engine marketing, e-mail marketing, Mobile Marketing, Social media marketing and Intranet marketing.

In conducting this study, the marketing performance of the distribution firms will not be measured directly. Even though the study will measure the impact of E-Marketing adoption on the current and future marketing performance (Financial and Non-Financial) of distribution firms, the study will explore the measures adopted by distribution firms to measure and assess their marketing activities. The impact of E-Marketing on the distribution firms’ marketing performance will be examined through the deployment of tool that is based on Likert-scale, developed by the researcher. The study will consider matters related to marketing productivity related to financial performance measures such as sales growth and profitability growth, and marketing productivity related to non-financial performance measures such as efficiency performance, knowledge performance, operational performance, and realisation of firm’s objective performance.

#### **7.4.2 E-Marketing Implementation Variable**

As reviewed in chapter two, E-Marketing can be counted as a modern marketing tool for business practice relate to promotion and selling products/services, data and new ideas through internet and other electronic resources. According to Akkeren (1999), the adoption of E-Marketing applications is still under development thus, complex technologies are unlikely to

be embraced the firms' strategies, and before elementary-level technologies have been successfully adopted. These entry-level implementations provide the required IT infrastructure where lead to development of more sophisticated online activities (Courtney and Finch, 2001). Adoption of E-Marketing in distribution process is the combined adoption of online technologies to accomplish business activities, improve the interaction with customers, increase the speed, make a real-time mechanism, and increase customer satisfaction. Distribution firms use various E-Marketing tactics, which increase the flexibility of the organisations and is more cost effective. This can develop the performance of the organisations and enhance the profit through increasing their capability to attain good quality supplies, on the right time with cheaper prices (Almajali and Maqableh, 2016). The main purpose of distribution firms on adoption of IT technology tools is to combine the information chain on both customer side and supplier side (Zhao *et al.*, 2008). Furthermore, E-Marketing adoption in distribution firms is not only about changing the system and technology of the companies but also involves modifying the business techniques, policies, processes, level of performance, and organisations' culture across distribution firms (Turban and Leidner,2008).

The benefit and performance of the new technology adoption across distribution firms is described in previous study (Bordonaba-Juste and Cambra-Fierro, 2009) which comprise of acquisition of competitive advantage throughout relationship between the suppliers and customers. E-Marketing indeed can develop the strength and provides great capabilities for online collaboration. diminishing time to market, reducing the operation costs, enhancing income growth, and level of supplier/customer service are the benefits that can be attained through adoption of E-Marketing (Graham and Hardaker, 2000). By relying on the prior discussion and by taking into the account of the purpose of the study, E-Marketing implementation is one of the current research variables. Accordingly, for the aim of conducting the study, E-Marketing implementation will be evaluated though measuring the tools, and levels of E-Marketing implemented by distribution firms and depending on the appropriate metrics as showed in the following section.

#### **7.4.2.1 Tools of E-Marketing Implementation**

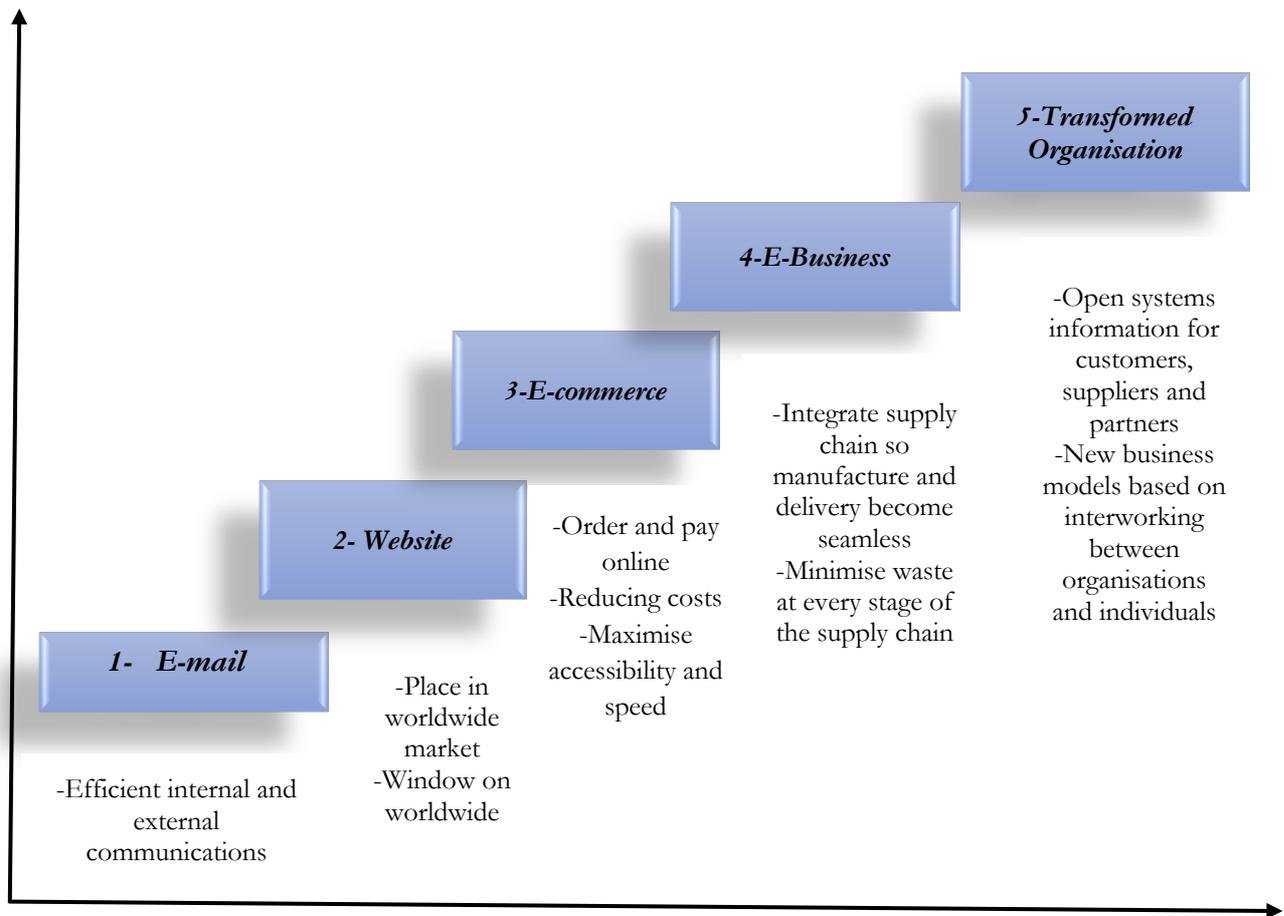
E-Marketing can be implemented through various tools. The most commonly tools used by firms are E-Mail Marketing, Search Engine Marketing, Social Media Marketing, Mobile

Marketing, and Intranet Marketing. Although, these tools have been discussed in detail in chapter two, the Appendix 5 summaries the tools of E-Marketing in this research.

#### **7.4.2.2 Level of E-Marketing Implementation**

For explaining the level of E-Marketing adoption, “stage of growth” or “growth models” have been described in previous studies (Chan and Swatman, 2000). This growth model recognised that IS or/and IT systems such as E-Marketing, e-commerce, and e-business in firms are not fixed but going through various levels of growth. Reviewing the extant literature verified various growth models developed by prior scholar. The IT growth model stages emerged in the mid-1970s by Richard Nolan that was famous and known as “Nolan’s stages of growth model”. Since scholars knew that Information Systems (IS) reserve a discrete position in firms and play an important role in all businesses worldwide that aim for having continuous growth and expansion (Gatautis and Neverauskas, 2005). Nolan’s model consists of six stages face by organisations as: induction, contagion, controlling, assimilation, data management, and maturity. Afterwards, one of the most popular models that was prominent in the UK government in early 2000s was the concept of the Department of Trade and Industry (DTI) adoption ladder by Martin and Matlay (2001) displayed in Figure 7.1. The figure shows that how businesses progress in ICT adoption in five stages of 1. E-mail, 2. Website, 3. E-commerce, 4. E-business, and 5. The transformed organisation. This model shows that, IT adoption in firms would progress from one stage to a higher level, in a well-planned progressive process (Martin and Matlay, 2001). This model was criticised by Parker and Castleman (2009) that due to its simplistic and linear progression, it cannot capture the complex nature of firms’ activities.

Lee *et al.*, (2003) classify two diverse types of E-Marketing adoption: basic and combined. Basic explains the e-network simply to systematise the exchange of business documents whereas the combined defines networks that are used for creation of inter-firm processes with channel partners. They (*ibid*) later assert that, organisations are unlikely to attain significant benefits with basics but throughout collaboration, permitted by e-networks. The aspect of collaboration may be appropriate for emerging country context where firms usually form communal groupings for business (Donner and Escobari, 2010).



**Figure 7.1:** Internet Adoption Ladder in UK; **Source:** Martin and Matlay, (2001).

Other scholars, similarly, generalised IT developments in organisations based on two categories; preliminary adoption and advanced institutionalisation (Lawson *et al.*, 2003; MacGregor, 2004; Mollar and Licker, 2005). According to Molla and Licker (2005), emerging country organisations are known to develop in E-Marketing expansion through six stages classification:

Stage 0: no email and no connectivity to the internet.

Stage 1: Internet presence and connectivity through e-mail but no webpage.

Stage 2: Static Webpage, announcing essential organisation information.

Stage 3: Collaborative Web presence, that is accepting enquiries, e-mails, and arrange entry from customers.

Stage 4: Transitive page with the ability of online selling and purchasing.

Stage 5: Combined webpage that is combined with suppliers, customers, and other back-office structures allowing all business communications to be conducted electronically.

Molla and Licker's model was also criticised, due to its simplistic way of defining E-Marketing adoption that oversees the compound nature of ICT integration in the organisation (Parker and Castleman, 2009). Another growth model established by NCC (2009) contains of five stages from zero stage four of adoption. Stage zero is no internet access as well as no email account and website. Stage 1 is the adoption of email widely as well as having website and using it for doing marketing activities. Stage 2 contains of high interaction with customers. Stage 3 contains of online interaction and communication internally with employees, as well as suppliers. And stage 4 is online exchange and e-Marketplace for suppliers/business partners, and customers and internals and fully shifting to online environment (Abou-Shouk and Lim, 2010).

The IT adoption models used by various scholars that is normally known as step-by-step indicator, starts from e-mail presence and communication, a basic webpage, e-commerce, and e-business to the transformed company (Vosloo, 2003; Jones *et al.*, 2000; Parish *et al.*, 2002; Teo and Pian, 2003; Willcocks and Sauer, 2003; and Hoque, 2000). Moreover, several scholars have developed the same models based on environmental, organisational, and innovation related factors to explain the dissimilarities in the adoption of IT tools (Molla and Licker, 2005; Tan *et al.*, 2007; and Kshetri, 2007; and Soliman and Janz, 2004). Numerous studies have underlined and developed theoretical frameworks for different IT adoption types in developing countries (Hamed *et al.*, 2008; Zolait *et al.*, 2010; Dali *et al.*, 2003; and Nathan, 2009). Appendix 6 summaries the different growth models and stages from early 1970 until recent years.

Taking into the consideration of the distribution firms' internet strategy and the functionality of their websites' characteristic, this study proposes a growth model of E-Marketing from level two to level four. This study argues that stage model of technological development for distribution firms is close to the growth models developed by Teo and Pian (2003) and NCC (2009) (see appendix 6) and they can be adopted in the context of E-Marketing to demonstrate the level of E-Marketing implementation within distribution firms. However, this study argues that:

- 1) The growth levels introduced by NCC (2009) can fit mainly with the elements of E-Marketing since it compacts only with technical development for a business from the internet and webpage viewpoints as well as focusing on the distribution and retailer

perspectives. Therefore, it can be used to assess the stage of implementation of E-Marketing by distribution firms participating in the research study. However, it cannot be the tool to be used to assess the level of implementation of E-Marketing, as e-commerce is not an element of E-Marketing as it is a bigger umbrella of E-Marketing.

- 2) This study will not use the stage 0 (Since all the participated research organisations, have already transmitted into level one, and have their own websites that constantly updating and upgrading). As well as stage four (Since the participated research organisations, have not fully transformed their business into online environment, as this would be transferring their marketing strategies into E-commerce marketing). and
- 3) These levels can be adjusted to three levels of E-Marketing implementation instead of five broad and general levels. Hence, these three levels are shown in the following table 7.4.

**Table 7.4:** Levels of E-Marketing Implementation

| Level  | Discussion   |
|--|--|
| <b>Level 1: Internet Presence (Low Implementation)</b>     | In this stage, the organisation will start the implementation of e-marketing through having its own webpage that will be deployed in conducting the promotion and other marketing activities along with providing info about the firm or via accessing other organisations' websites, internet, and connect and communicate with e-mail by ISP. Majority of time, the website contents of the distribution firms is poor in terms of value; the website is static with no organised or regular updates.  |
| <b>Level 2: Prospecting (Medium Implementation)</b>        | In this stage, the organisation will further develop the website, have an organised and regular updates and upgrades, and have connectivity of its own webpage to database. Furthermore, the organisation interacts with its customers over social media platforms-mails, etc.   |
| <b>Level 3: Business Integration (High Implementation)</b> | In this stage, the organisation will go beyond the level 2 phase to a transactional phase, where the organisation will make a protected transaction processing scheme, placing online orders, online payments, tracking system, customer relationship, intranet network and internal connectivity with all employees, as well as customers/suppliers. The organisation will diminish and eliminate the physical input on leading the transactions to make a computerised workflow and processes to achieve all of the needs of employees, customers, and suppliers' needs. |

**Source:** Developed by Current Researcher

On the other side, this study will utilise a classification of three levels to demonstrate the level of E-mail Marketing, Search Engine Marketing, and Social Media Marketing, Intranet Marketing, and Mobile Marketing implementation within firms in distribution sector. These three levels are presented in the following table 7.5:

**Table 7.5:** Levels of E-Marketing Implementation within this Study

| Level  | Discussion  |
|--|---|
| <b>Level 1: Internet Presence (Low Implementation)</b>     | The Distribution companies are adopting E-mail Marketing, Search Engine Marketing, Social Media Marketing, Intranet Marketing, or Mobile Marketing in conducting less than 25% or less of its marketing activities.           |
| <b>Level 2: Prospecting (Medium Implementation)</b>        | The Distribution companies are adopting E-mail Marketing, Search Engine Marketing, Social Media Marketing, Intranet Marketing, or Mobile Marketing in conducting more than 25% and less than 75% of its marketing activities. |
| <b>Level 3: Business Integration (High Implementation)</b> | The Distribution companies are adopting E-mail Marketing, Search Engine Marketing, Social Media Marketing, Intranet Marketing, or Mobile Marketing in conducting more than 75% of the marketing activities.                   |

**Source:** Developed by Current Researcher

#### 7.4.3 E-Marketing Adoption Variable (Measure)

This research will examine some factors related to the adoption of E-Marketing by distribution firms. These factors are driven by the review of literature regarding E-Marketing adoption, E-Marketing adoption in developing countries, theories of information technologies and the purification of the factors through exploratory studies (Chapter Six).

From the review of existing literature on E-Marketing, most of the previous scholars refer E-Marketing adoption measures as the degree arise from the theories of new technologies that were reviewed in chapter three. The E-Marketing adoption measures are interchangeably used as a dependent variable to investigate the factors influencing E-Marketing adoption, or an independent variable to investigate the impacts of E-Marketing adoption on performance.

There were 44 articles related to E-Marketing adoption measures such as : Aleid (2011), Hamed (2011), Aldwsry (2012), Shemi (2012), Abou-Shouk (2012), Alsaif (2013), Patrick Ohunmah (2015), Omer Khater (2016), Rahbi (2017), Azam (2014), Robert Odera (2014), Binti Hashim (2012), Alrousan (2014), Wahieb (2016), Terrance *et al.* (2018) , Bhandari *et al.* (2018), Shih *et al.* (2013), Chen *et al.* (2011), Ifeonu (2014), Al-Somali (2011), Rahayu (2015), Rabie (2013), etc. They found measures that could explain the E-Marketing adoption measures.

Scholars such as Nolan (1979), McKay, and Marshall (2003) and Prananto *et al.* (2003) measured IT adoption and use in an organisation as the innovation-type behaviour of a company's business routine activities. The adoption of IT by a company was described in a

broader context. Catherine and Kielgast, (2008) examined the adoption of E-Marketing and found that the adoption has impact in gaining competitive advantage and improve their marketing performance by having better access to the market. Moreover, Rahayu (2015) argues that if the implementation of E-Marketing succeeds, the potential benefit for businesses including the enhancement in sales and productivity, improved profitability, less costs related with inventory, improving the quality of service, and competitive advantage.

The measures for E-Marketing adoption by Al-Somali (2011), Rahayu (2015), Rabie (2013), and Catherine and Kielgast (2008) are more appropriate for this study since the aim is to determine the factors that may influence the decision process of Iranian distribution firms to adopt E-Marketing in the early stage. Therefore, based on Al-Somali (2011), Rahayu (2015), Rabie (2013), and Catherine and Kielgast (2008) and the exploratory interviews, this study will deploy the statements in Table 7.6 to measure the adoption of E-Marketing by Iranian distribution firms.

Also, the E-Marketing adoption measures related to the level of E-Marketing implementation, and tools of E-Marketing will be investigated in this study. However, the E-Marketing adoption measures related to the level of implementation and tools of E-Marketing will only be analysed for understanding the status of Iranian distribution firms' E-Marketing adoption in the descriptive analysis section of the research findings.

**Table 23** Statements for Measuring the Adoption of E-Marketing in this Study

| N | Statements  | Sources   |
|---|---|---|
| 1 | E-Marketing make our job operations easier.   | Exploratory interviews, Al-Somali (2011), Rahayu (2015) |
| 2 | E-Marketing facilitates exchange of productive ideas among the staff (e.g., aid inter-company communication, more idea exchange and business transactions). | Exploratory interviews                                  |
| 3 | It facilitates seamless operational efficiency free of technical disruption and delays.   | Rabie (2013), Catherine and Kielgast (2008)             |
| 4 | E-Marketing allows us for increasing the market size.   | Exploratory interviews                                  |
| 5 | IT related Works and communication done quicker, faster, and more accurately with the adoption of E-Marketing.  | Exploratory interviews, Looi (2005)                     |
| 6 | E-marketing adoption allows us for delivery of products to wider spectrum of the population at reduced cost.  | Exploratory interviews                                  |
| 7 | E-marketing facilitates exchange of productive IT related ideas among the staff.  | Exploratory interviews, Looi (2005)                     |

As discussed in detail in chapter one, five, and six, the study will examine the impact of some factors on the adoption of E-Marketing by distribution firms. These variables are driven from the review of extant literature as well as the new technology adoption theories. The factors were purified by exploratory study, conducted in Iran. As justified in chapter six and for the aim of conducting this study, the variables, and drivers of E-Marketing adoption by distribution firms will be categorised into: environmental, individual, organisational, and technological factors, that divided into external and internal drivers.

With respect to the external factors (environmental and technological factors), the level of national e-readiness in the country might establish triggers for E-Marketing adoption. Moreover, firms sometimes choose the adoption of new technology tools because of high competition in the industry or market, which result from the external forces rather than direct rises in production (United Nations, 2019). In this respect, national e-readiness could act as an E-Marketing trigger in circumstances where distribution firms' external environment has adequate level of e-readiness. The intensity of national e-readiness will assist on managers/CEOs' decision process, when decide to upgrade to a higher level as well as having online exchanges, not only internally but also externally with their customers/suppliers and business partners. Moreover, based on the literature, there are other factors trigger the firms for adoption of E-Marketing such as: consultancy and getting support from IT expertise, sufficient accessibility to internet resources, reduction on costs, compatibility with the firm's infrastructure and marketing strategies with the new technology, perception of manager/owner from the IT benefits, and relative advantage.

Conversely, the internal factors (individual and organisational) play main role in E-Marketing adoption of distribution firms. These triggers or variable are hypothesised to contain normative social influences, owner/management support, perceived ease of use, job fit with PC use, long-term consequences of PC use, organisation's culture, organisation's e-readiness, receptivity toward change, marketing capabilities of the organisation, the level of decentralisation, degree of formalisation, employees' IT knowledge, and management IT knowledge. Both external and internal related factors for E-Marketing adoption by distribution firms that have been involved in the research framework of the study, had been discussed previously in details within chapter six.

## 7.5 The Research Framework

A research framework can be explained either graphically or narratively. Variables, factors, or constructs are the main items to be considered when developing a research framework, as well as the presumed relationships among them (Miles and Huberman, 1994). Walsham (1993, p.71) argue that research framework should not be observed as an inflexible structure but should be used as a valued guide for empirical research. The purpose for development of research framework according to Miles and Huberman, (1994) is to provide a preliminary theme for the research design. More precisely, such a framework pursues to recognise general constructs that independently cover a larger number of specific details, surrounding the phenomenon of interest. This chapter's purpose is to outline the research framework based on the discussions in chapter two, three, four, six and seven. The chapter demonstrated the objectives and aims, as well as the research questions at the beginning of the chapter followed by a rationalisation on the need for developing a research framework in this study. Subsequently, the study has established a comprehensive research framework entail of two phases including: i) identifying determinants of distribution firms' E-Marketing adoption by Iranian firms in distribution sector; and ii) the impacts of E-Marketing adoption on Iranian distribution firms' marketing performance. The research framework is developed bearing in mind that in most circumstances distribution firms are on the underprivileged end of the universal digital world and might miss some benefits of E-Marketing. In contrast, E-Marketing is conceptualised to be a tool for businesses that can lead to a significant organisational growth. Furthermore, the research framework proposes that E-Marketing for distribution firms would be impacted by different external and internal factors. The research framework also had been developed keeping in mind that implementing E-Marketing can be throughout different tools, and levels of implementation.

First, this research deploys the integrative theoretical model, as this model could describe factors of distribution firms' E-Marketing adoption in a wider perspective comprising environmental, individual, organisational, and technological related factors. This framework integrates six theories of new technology adoption. Out of the new technology theories, twenty-one determinants of internet adoption have been discovered in exploratory phase; and will be re-observed statistically to suit to the current study context. Hence, the new study context of factors and the underpinning of the integrative theoretical model made a novelty to this current study.

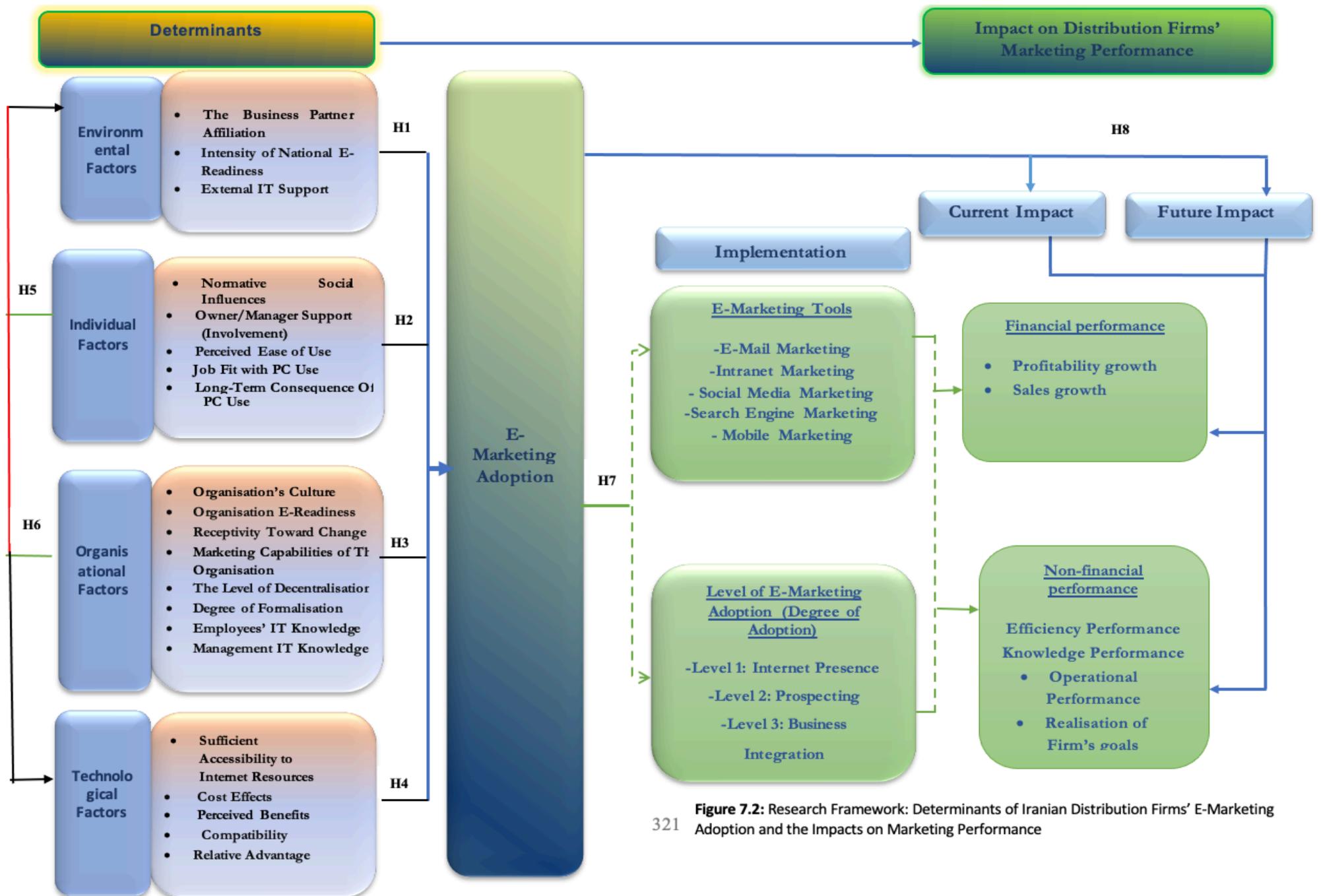
Second, in regard of E-Marketing implementation measures, this research deployed five tools of E-Marketing including i) search engine marketing; ii) social media marketing; iii) mobile marketing; iv) intranet marketing; and v) e-mail marketing. Moreover, three level of E-Marketing implementation adopted from Teo and Pian (2003) and NCC (2009) including i) level 1: internet presence; ii) level 2: prospecting; and iii) level 3: business integration. All these constructs will be tested the relationship between the factors and afterwards the relationship to distribution firms' marketing performance. Utilisation of these concepts is based on the following reasons: i) these concepts have been confirmed statistically as greatly significant concepts of distribution firms' E-Marketing adoption in previous studies and also based on the results of the exploratory study; and ii) the concepts were vastly deployed in prior studies.

Third, in regard of current and future marketing performance measures (adopted from Ramsey and McCole, 2005), this study considers both financial and non-financial perspectives. Conversely, only two metrics from the financial perspectives will be measured: i) profitability growth; and ii) sales growth. Since, only these two-financial metrics could measure both empirically and subjectively as prior study by Yeoh (2014) offered that, acquiring the firm's financial reports provide challenges for scholars as organisations avoid revealing sensitive data. Moreover, four non-financial performance metrics will also be examined, including: i) operational performance; ii) realisation of firm's objectives; iii) efficiency performance; and iv) knowledge performance.

Forth, in regard of country of the study, this study decided Iran as the research background. From the review of the extant literature, it has been discovered that only 14 articles related to the determinants of e-adoption published that were conducted in Iran from 2000 To 2021. Hence, this gives opportunity to conduct a research in the study area in Iran as the integrative theoretical model is still not being examined in the prior studies.

Fifth, in regard of the industrial perspective, with consideration of limited number of firms implementing and conducting online business in Iran, this research draws the samples from distribution sector over extensive industries, to prevent from obtaining inadequate data. Even at present, there is still no sufficient synthesis of the diverse data in the E-Marketing adoption of Iranian firms, specifically in distribution sector. Hence, this research attempts to examine communal factors that influence firms in distribution sectors that decide to implement E-

Marketing. The factors will then be examined regarding unities and alternations according to industry. Figure 7.2 demonstrates the current study's research framework.



321 **Figure 7.2:** Research Framework: Determinants of Iranian Distribution Firms' E-Marketing Adoption and the Impacts on Marketing Performance

## 7.6 Research Hypotheses

Based on the reviews on the literature in previous chapters and the outcomes of exploratory stage of data collection, the following hypotheses have been developed. Both the research framework and empirical study are linked to each other to examine the hypotheses.

### **Hypotheses (1): Adoption of E-Marketing by Iranian distribution firms is dependent on the environmental related factors.**

- (1-A): Adoption of E-Marketing by Iranian distribution firms is dependent on the business partner affiliation.
- (1-B): Adoption of E-Marketing by Iranian distribution firms is dependent on the intensity of organisations' national e-readiness
- (1-C): Adoption of E-Marketing by Iranian distribution firms is dependent on the external IT support.
- (1-D): The business partner affiliation, the intensity of national e-readiness, and the external IT support have a positive impact on E-Marketing adoption by Iranian distribution firms.

### **Hypotheses (2): Adoption of E-Marketing by Iranian distribution firms is dependent on the Individual factors.**

- (2-A): Adoption of E-Marketing by Iranian distribution firms is dependent on the normative social influences.
- (2-B): Adoption of E-Marketing by Iranian distribution firms is dependent on the owner/manager support.
- (2-C): Adoption of E-Marketing by Iranian distribution firms is dependent on E-Marketing perceived ease of use.
- (2-D): Adoption of E-Marketing by Iranian distribution firms is dependent on the job fit with PC use.
- (2-E): Adoption of E-Marketing by Iranian distribution firms is dependent on the consequences of the long-terms of PC use.
- (2-F): The normative social influences, the owner/manager support, the perceived ease of use, job fit with PC use and the long-term consequences of PC use have a positive impact on E-Marketing adoption by Iranian distribution firms.

**Hypotheses (3): Adoption of E-Marketing by Iranian distribution is dependent on the organisational related factors.**

- (3-A): Adoption of E-Marketing by Iranian distribution firms is dependent on the employees' IT knowledge.
- (3-b): Adoption of E-Marketing by Iranian distribution firms is dependent on the management's IT knowledge.
- (3-c): Adoption of E-Marketing by Iranian distribution firms is dependent on organisation's culture.
- (3-d): Adoption of E-Marketing by Iranian distribution firms is dependent on the intensity of e-readiness of the organisation.
- (3-e): Adoption of E-Marketing by Iranian distribution firms is dependent on having receptivity toward change by new technology.
- (3-f): Adoption of E-Marketing by Iranian distribution firms is dependent on marketing capabilities of the organisation.
- (3-g): Adoption of E-Marketing by Iranian distribution firms is dependent on the level of decentralisation.
- (3-h): Adoption of E-Marketing by Iranian distribution firms is dependent on degree of formalisation of the organisation.
- (3-i): Employee's IT knowledge, management's it knowledge, organisation's culture, the intensity of organisation e-readiness, the receptivity toward change, marketing capabilities of the organisation, the level of decentralisation and the degree of formalisation have positive impact on adoption of E-Marketing by distribution Iranian firms.

**Hypotheses (4): Adoption of E-Marketing by Iranian distribution firms is dependent on the technological related factors.**

- (4-A): Adoption of E-Marketing by Iranian distribution firms is dependent on the sufficient accessibility to internet resources.
- (4-B): Adoption of E-Marketing by Iranian distribution firms is dependent on cost effects through the adoption.
- (4-C): Adoption of E-Marketing by Iranian distribution firms is dependent on the perceived benefits of ICT.
- (4-D): Adoption of E-Marketing by Iranian distribution firms is dependent on E-Marketing perceived compatibility.

(4-E): Adoption of E-Marketing by Iranian distribution firms is dependent on E-Marketing perceived relative advantage.

(4-f): sufficient accessibility to internet resources, cost effects, the perceived benefits of ICT, the perceived compatibility and the perceived relative advantage have positive impact on managers' decision for adoption of E-Marketing in Iranian distribution firms.

**Hypothesis (5): The Individual related factors are dependent on the technological and environmental related factors.**

(5-A): Normative social influence is dependent on the business partner affiliation, national e-readiness, sufficient accessibility to Internet resources, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.

(5-B): Owner/Manager support is dependent on the business partner affiliation, national e-readiness, sufficient accessibility to Internet resources, cost effects, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.

(5-C): E-Marketing perceived Ease of Use is dependent on national e-readiness, cost effects, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.

(5-D): Job fit with PC use is dependent on the business partner affiliation, national e-readiness, sufficient accessibility to internet resources, cost effects, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.

(5-E): Long-Term consequence of PC use is dependent the business partner affiliation, national e-readiness, external IT support, sufficient accessibility to internet resources, cost effects, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.

**Hypothesis (6): The organisational related factors are dependent on the environmental and technological related factors.**

(6-A): Organisation's e-readiness is dependent on the business partner affiliation, national e-readiness, external IT support, sufficient accessibility to internet resources, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.

- (6-B): the receptivity toward change is dependent on the business partner affiliation, national e-readiness, cost effects, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.
- (6-C): Marketing capabilities of the organisation is dependent on the business partner affiliation, national e-readiness, external IT support, and sufficient accessibility to internet resources, cost effects, perceived benefits, compatibility, relative advantage, and costs for producing better benefit for customers/suppliers by the Iranian distribution firms.
- (6-D): The level of decentralisation structure is dependent on the business partner affiliation, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.
- (6-E): The degree of formalisation within the firm is dependent on the business partner affiliation, national e-readiness, and sufficient accessibility to internet resources, perceived benefits, cost effects, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.
- (6-F): Employees' IT knowledge is dependent on the business partner affiliation, national e-readiness, external IT support, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.
- (6-G): Management IT knowledge is dependent on the business partner affiliation, national e-readiness, external IT support, and sufficient accessibility to internet resources, cost effects, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.
- (6-H): Organisation's culture is dependent on the business partner affiliation, national e-readiness, external IT support, sufficient accessibility to internet resources, perceived benefits, compatibility, relative advantage, and costs toward E-Marketing by the Iranian distribution firms.

**Hypothesis (7): Iranian distribution firms implement E-Marketing through different E-Marketing tools and in different implementation levels.**

- (7-A): When implementing E-Marketing of Iranian Distribution firms, depends on more than one tool of E-Marketing tools.
- (7-B): Implementation of E-Marketing is in different implementation levels.
- (7-C): Social Media Marketing and Search Engine Marketing are the most commonly used E-Marketing tools by Iranian distribution firms when implementing E-Marketing.

**Hypothesis (8): E-Marketing adoption by Iranian distribution firms has a positive impact on the marketing performance of the firm.**

- (8-A): E-Marketing adoption by Iranian distribution firms has a positive impact on the current financial performance of the firms.
- (8-B): E-Marketing adoption by Iranian distribution firms has a positive impact on the current non-financial performance of the firms.
- (8-C): E-Marketing adoption by Iranian distribution firms has a positive impact on the expected future financial performance of the firms.
- (8-D): E-Marketing adoption by Iranian distribution firms has a positive impact on the expected future non-financial performance of the firms.

## **7.7 Chapter Summery**

The chapter purposed to outline the research framework according to the discussions in chapter four and six. The chapter determined the research aims, objectives, and research questions at the start of the discussion, followed by a rationalisation of the necessity for developing a research framework in this current study. Subsequently, the study has developed a broad research framework comprises of two phases including: i) identifying determinants of distribution firms' E-Marketing adoption by Iranian firms in distribution sector; and ii) The impacts of interne marketing adoption on Iranian distribution firms' marketing performance. Within the first stage, this study selected twenty-one factors of Iranian distribution firms' E-Marketing adoption, five measures related to different E-Marketing tools, and three different levels of E-Marketing implementation for further examination in the empirical statistical investigation. These measures have been chosen based on the outcomes of exploratory analyses. Within the second stage, this study identified two measures related to financial performance, and four measures related to non-financial performance for distribution firms. Finally, the chapter presented the developed hypotheses of the study to achieve the study objectives and to answer the research questions. By relying on the research framework that have been discussed in section 7.5, this research has developed questionnaires to collect related data in survey technique (as reviewed in chapter five). The examination of these data is discussed within the following chapters (chapter eight and chapter nine).

## Chapter 8: Quantitative Findings Phase 1: Descriptive Data Analysis

### 8.1 Introduction

This chapter presents analyses and interprets the descriptive data sourced from the survey questionnaire of 231 Iranian distribution companies involved in implementation of E-Marketing. The descriptive data analysis is one of the important parts of the quantitative analysis to describe numerous aspects of sample population such as firm's demographic characteristics, participant's profile, and/or behaviour to validate the samples to meet the research's aim and to answer the research questions.

Factors or the combination of them could be adopted to explain samples of themes, afterwards they can be defined as descriptive statistics (Tabachnick and Fidell, 2007). Hence, to show compact forms of summarised data from several tests that generate standard deviation, means, percentages and frequencies, charts, graphs, and tables are used. The contribution of descriptive statistics within the study is to explain the uncertainties of the raw data and to investigate and confirm hypotheses (Lovie, 1986, P.165). Therefore, the following chapter will investigate the descriptive statistics before the inferential data analyses is adopted such as the multiple regression, one simple linear regression, etc. This chapter begins with the analysis of the profile of the Iranian distribution companies through the collected data from the questionnaires. Subsequently this chapter discusses on the characteristic and profile of the participants including owner, manager, CEO, chairman, and top managers who involved in adoption and implementation of E-Marketing within the organisation. Afterwards, this chapter presents the status of the E-Marketing adoption of the distribution firms. This is related to the level of adoption and the tools which E-Marketing have been implemented through, since this has been widely used in previous studies to measure the degree of E-Marketing implementation (as discussed in chapter seven and chapter two). The chapter ends with the analysis on the marketing performance profile of the distribution firms after involved in adoption of E-Marketing. Subsequently the statistical analysis for testing the research hypotheses is further discussed in chapter to meet the research aims and objectives.

While this chapter and the following chapter (Chapter nine) discuss the analysis of the collected data from the survey questionnaires, chapter ten discusses the findings and interpretations of

the results. Later the results will be compared with the previous studies followed by the conclusion and recommendations for the future researchers in chapter 11.

## **8.2 The Analysis Process of the Quantitative Phase**

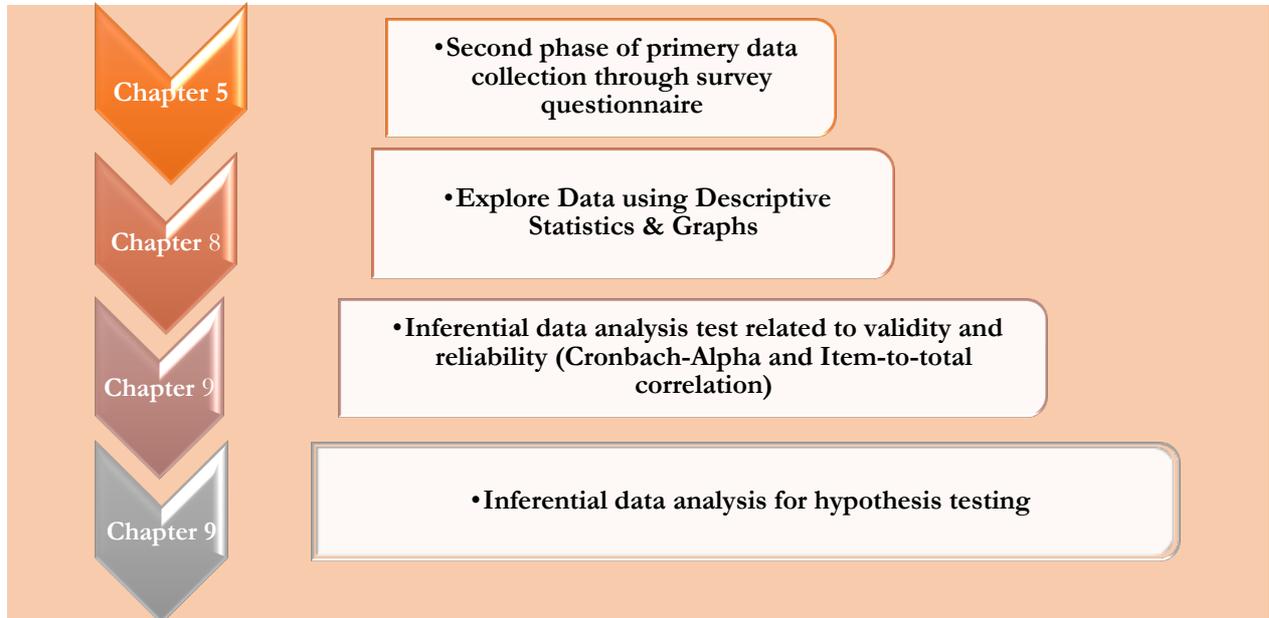
The primary data was obtained from the survey questionnaire. This study conducted the data collection in the quantitative phase through various stages.

Firstly, the primary data collected through the survey questionnaires from 231 owner/manager, CEO, chairman and top managers, involved in E-Marketing implementation of Iranian distribution firms. All the answered questionnaires were usable which accounted for 77 percent response rate of the targeted samples (300 Distribution firms). The questionnaire was consisting of both descriptive and inferential questions to acquire the required information in regard of the organisations' characteristic, the participants' profile, level of E-Marketing adoption, tools of E-Marketing applied in the organisations and the impact of E-Marketing adoption on marketing performance of the firms through the 5-likert scale questions which provides the answer to the research questions and also aligned with the research's aim and objectives.

Secondly, to understand the geographical and demographical information, the data regarding the organisations' characteristics, participants' profile, degree of E-Marketing implementation with the level and tools measures, and the impact of E-Marketing on marketing performance were analysed through descriptive statistics. The descriptive analysis therefore, was conducted by statistical package for social sciences (SPSS version 24).

Thirdly, after the descriptive statistics, for assurance of the internal consistency of all data, this study conducted validity and reliability test of all collected data (which is based on the conceptual framework that have been discussed on chapter seven). This has been conducted through the statistical techniques which include Cronbach alpha and item-to-total correlation test. Execution of the reliability test is essential to measure how closely a set of items are as of a group and to what extent all data are fit to describe measures tested in the model before running the statistical test for the hypothesis. The assessment of the reliability test was conducted by using SPSS software package.

Lastly, the outcomes of the descriptive statistics, reliability tests, and inferential analysis regarding the hypothesis of this research were discussed in the next chapter nine. Figure 8.1 illustrates the process of quantitative data analysis method.



**Figure 8.1:** Flow Chart of the Quantitative Data Analysis Process

**Source:** The Researcher

### 8.3 Descriptive Data analysis

Before processing the inferential statistics, it is essential to do descriptive data analysis which provides numerical and graphical information by summarising the collected primary data before the inferential statistics process. This is beneficial for simplifying the large amount of data in a practical way.

This section is related to the descriptive data analysis section. The aim is to portray the characteristic of the sample population and to provide general information on the demographical, geographical background of the distribution organisations, the respondents' profile, and/or behavior toward E-Marketing. This chapter demonstrates the descriptive data in various statistical layout which include frequency analysis, tables, graphs, histograms, and cross tabulation (to describe the relationship between the categorical variables of the survey,). The aim is to distribute the participated distribution firms and the participants according to characteristics' profile. The descriptive data provided in this chapter includes of four main sections which are: i) The distribution of the firms' profile, ii) The respondents' profile and

their characteristics, iii) The level of E-Marketing implementation profile, and iv) Marketing performance measure profile.

The distribution firms' profile includes i) The sector of the firms; ii) Location of the companies; iii) Business scope of distribution firms; iv) Capital of the organisations; v) Annual sale of the distribution firms; vi) Proportion of companies' annual budget been spent on E-Marketing; vii) Years company involved in E-Marketing implementation; viii) Time in business for the distribution firm (age of the firm); ix) Number of employees; x) Type of the business ownership; xi) Statement of technology consultants' involvement within the firm; and xii) Employing IT specialists within firm.

The participants' profile is related to i) Their position in company; ii) Age of the respondents; iii) Level of education of the respondents; iv) Years of working within the distribution firm; v) Involvement of the respondents in E-Marketing implementation within the distribution firm.

Consequently, descriptive analysis in regard of E-Marketing profile includes i) E-Marketing tools implemented by Iranian distribution firms; and ii) Level of E-Marketing implemented by Iranian distribution firms.

Lastly, there is a descriptive section related to marketing performance measure profile of the Iranian distribution firms that have been involved in E-Marketing adoption implementation. The information includes i) Sales generated from E-Marketing implementation to total sales; ii) Profitability growth since involved in E-Marketing implementation; and iii) Sales growth of the firm since involved in implementation of E-Marketing.

There are also general questions about type of the companies' website and website improvement plans. Alongside of the frequency analysis, chi-square was conducted for approving some of the findings.

### **8.3.1 The Research Distribution Firms' Profile**

#### **8.3.1.1 Distribution of Research Firms by Sector**

As mentioned in chapter two and chapter seven, this study aims to investigate the distribution firms in different distribution sectors all over Iran. This allows the researcher to generalise the findings and to increase the reliability of the research findings. Subsequently the research

sample contained 231 firms in distribution industry in eleven different sectors. As discussed earlier in chapter six, the types of distribution firms in Iran are vary. Some of the companies are distributing solely and some of them are distribute the combination of sectors. The sectors include groceries (including agricultural outputs), hygienic, pharmaceutical, and medical equipment, cosmetics, electronics and house appliances, tobaccos, oil and petroleum products and automobile facilities. However, the distribution of some certain products such as tobaccos are in the monopoly of the government (Iran Business Time, 2020).

Table 8.1 presents the distribution of the samples based on the business sector. As it can be seen in the table, the large number of the distribution firms (85 Distribution Firms) involved in distribution of both groceries-hygienic products accounted for 36.8.0% of the sample, followed by the firms (45 Distribution firms) distributing electronic and home appliances, representing 19.5% of the total research samples. the remaining distribution firms are in groceries, hygienic, cosmetics, pharmaceutical and medical equipment, oil and petroleum, Pharmaceutical-Groceries, Cosmetics- Hygienic, Battery Distribution and Distribution of Spare Parts for Automobiles distribution sector as follow; groceries distribution representing 7.4% (17 Distribution firms), hygienic distribution representing 7.8% (18 Distribution firms), cosmetics distribution representing 8.7% (20 Distribution Firms), pharmaceutical and medical equipment distribution accounted for 10.8 % (25 Distribution firms), oil and petroleum distribution representing 3.9% (9 Distribution Firms), Pharmaceutical- Groceries distribution representing 1.3% (3 Distribution Firms), Cosmetics- Hygienic distribution representing 2.2% (5 Distribution Firms), Battery Distribution representing 0.9% (2 Distribution Firms),and finally Distribution of Spare Parts for Automobiles representing 0.9% (2 Distribution Firms). There were no firms in hygienic-cosmetics, groceries-cosmetics and groceries-hygienic-cosmetics distribution sector and they were solely distributing the grocery and cosmetic products to the customers.

As it can be seen from the results most of the firms (93 distribution firms) are in distributing the combination of products in different sectors rather than distribute them solely to the retailers or end-customers. This result is in consistent with the prior report on the distribution of the research population that stated, 100% of the food, cosmetics, and detergent products, and 70% of the electronics and home appliances are distributed by distribution firms (Iran Business Time, 2020). Also 100% of the pharmaceutical products are distributed by distribution firms stated in (Iran Business Time, 2020). Additionally, this research found 9

distribution firms distribute oil and petroleum products and four firms are in both battery and spare parts of automobiles distribution. Thus, the distribution of research firms by sector covers all types of distribution firms as required to increase the generalisation of the findings. As such, the results contribute greater reliability of the research samples and provides better quality generalisable research outcomes.

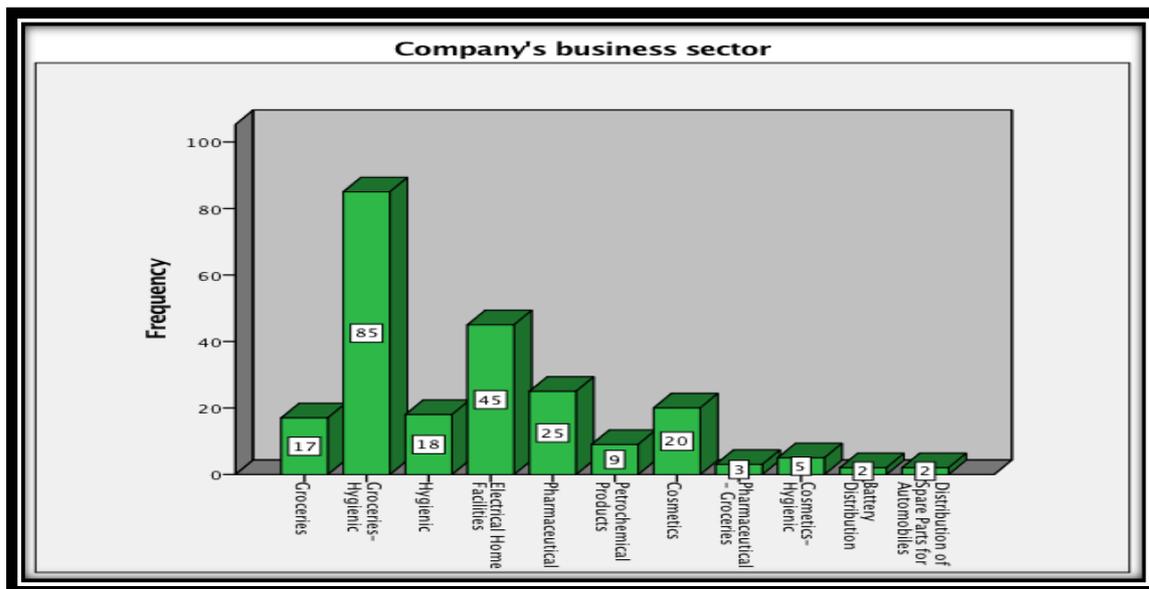


Figure 8.2: Distribution of Research Samples by Business Sector

Table 8.1: Company's Business Sector

|       |   | <i>Frequency</i> | <i>Percent</i> | <i>Valid Percent</i> | <i>Cumulative Percent</i> |
|-------|---|------------------|----------------|----------------------|---------------------------|
| Valid | Groceries                                   | 17               | 7.4            | 7.4                  | 7.4                       |
|       | Groceries-Hygienic                          | 85               | 36.8           | 36.8                 | 44.2                      |
|       | Hygienic                                    | 18               | 7.8            | 7.8                  | 51.9                      |
|       | Electronics and Home Appliances             | 45               | 19.5           | 19.5                 | 71.4                      |
|       | Pharmaceutical and Medical Equipment        | 25               | 10.8           | 10.8                 | 82.3                      |
|       | Oil and Petroleum Products                  | 9                | 3.9            | 3.9                  | 86.1                      |
|       | Cosmetics                                   | 20               | 8.7            | 8.7                  | 94.8                      |
|       | Pharmaceutical-Groceries                    | 3                | 1.3            | 1.3                  | 96.1                      |
|       | Cosmetics- Hygienic                         | 5                | 2.2            | 2.2                  | 98.3                      |
|       | Battery Distribution                        | 2                | 0.9            | 0.9                  | 99.1                      |
|       | Distribution of Spare Parts for Automobiles | 2                | 0.9            | 0.9                  | 100.0                     |
|       | <b>Total</b>                                |                  | 231            | 100.0                | 100.0                     |

Moreover, the cross-tabulation portrayed in Table 8.2 shows that the highest number of the distribution firms that adopt E-Marketing are in groceries and hygienic distribution sector were in business for more than 21 years (73 distribution firms).

**Table 8.2:** Cross tabulation of Year of Company Establishment and Company's Business Sector

|   |                       | Company's business sector |             |     |                    |                    |                       |               |                     |             |         |                 | Total |
|---|-----------------------|---------------------------|-------------|-----|--------------------|--------------------|-----------------------|---------------|---------------------|-------------|---------|-----------------|-------|
|   |                       | Groceries                 | Cos-<br>Hyg | Hyg | home<br>appliances | Pharmac<br>eutical | Petroleum<br>Products | Cosmetic<br>s | Pharm-<br>Groceries | Cos-<br>Hyg | Battery | Autom<br>obiles |       |
| Year of<br>company<br>establish<br>ment | Less than 3<br>years  | 1                         | 2           | 0   | 1                  | 0                  | 0                     | 0             | 0                   | 0           | 0       | 0               | 4     |
|   | 3-5 years             | 3                         | 0           | 0   | 1                  | 0                  | 0                     | 0             | 0                   | 0           | 0       | 0               | 4     |
|   | 6-10 years            | 1                         | 2           | 1   | 10                 | 8                  | 2                     | 1             | 0                   | 0           | 0       | 0               | 25    |
|   | 11-15 years           | 1                         | 4           | 3   | 2                  | 0                  | 0                     | 1             | 0                   | 1           | 0       | 0               | 12    |
|   | 16-20 years           | 0                         | 4           | 0   | 2                  | 4                  | 0                     | 1             | 0                   | 1           | 0       | 0               | 12    |
|   | 21 years<br>and above | 11                        | 73          | 14  | 29                 | 13                 | 7                     | 17            | 3                   | 3           | 2       | 2               | 174   |
| Total                                   |                       | 17                        | 85          | 18  | 45                 | 25                 | 9                     | 20            | 3                   | 5           | 2       | 2               | 231   |

### 8.3.1.2 Location of the Distribution Firms

Table 8.3 illustrates the distribution of the research sample of distribution firms according to the city. As can be seen in the table majority of the distribution firms are located in Tehran which accounted for 21.6% (50 distribution firms) out of the 231 total of the research sample population. The second largest sample population of the distribution firms was based in Alborz which accounted 4.8% (11 distribution firms), in Isfahan 3.9% (9 distribution firms), and in Ardabil, Chaharmahal and Bakhtiari, Fars, Gilan, Hamadan, Kerman, Khuzestan, Lorestan, Markazi and Sistan and baluchestan 3.5% (8 distribution firms each city).

The location of the other distribution firms in the rest of other cities were distributed moderately including in East Azerbaijan, Mazandaran and Qom 3.0% (7 distribution firms each city), Bushehr, Kermanshah and Kurdistan 2.6% (6 distribution firms each city), Qazvin 2.2% (5 distribution firms), Hormozgan, Ilam, Semnan, Kohgiluyeh and boyer-Ahmad and yazd 1.7% (4 distribution firms each city), Razavi Khorasan and zanjan 1.3% ( 3 distribution firms each city), West Azerbaijan, North and South khoraan 0.9% (2 distribution firms each city).

Table 8.3 and Figure 8.3 comparing the distribution of research samples (231 distribution firms) and the research population (2292 Distribution Firms) according to the cities. Remarkably, most of the research samples and the research population are in the same city which is the capital city of Iran known as Tehran. This result is in consistent with the reports by the statistics from the Iranian Distribution Association (2020) (As discussed earlier in chapter six) about the location of the majority of the e-marketing implemented distribution firms. Similarly, Alborz remains the second important city which consists of the second largest population which adopted E-Marketing. Also, Isfahan as the third important city in the research population remains as the important city regarding the location of the research sample.

**Table 24** City which is the Company Based

|        |                            | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|----------------------------|-----------|---------|---------------|--------------------|
| Valid  | Tehran                     | 50        | 21.6    | 21.6          | 21.6               |
|        | East Azerbaijan            | 7         | 3.0     | 3.0           | 24.7               |
|        | West Azerbaijan            | 2         | .9      | .9            | 25.5               |
|        | Isfahan                    | 9         | 3.9     | 3.9           | 29.4               |
|        | Alborz                     | 11        | 4.8     | 4.8           | 34.2               |
|        | Ardabil                    | 8         | 3.5     | 3.5           | 37.7               |
|        | Bushehr                    | 6         | 2.6     | 2.6           | 40.3               |
|        | Chaharmahal and Bakhtiari  | 8         | 3.5     | 3.5           | 43.7               |
|        | Fars                       | 8         | 3.5     | 3.5           | 47.2               |
|        | Gilan                      | 8         | 3.5     | 3.5           | 50.6               |
|        | Golestan                   | 5         | 2.2     | 2.2           | 52.8               |
|        | Hamadan                    | 8         | 3.5     | 3.5           | 56.3               |
|        | Hormozgan                  | 4         | 1.7     | 1.7           | 58.0               |
|        | Ilam                       | 4         | 1.7     | 1.7           | 59.7               |
|        | Kerman                     | 8         | 3.5     | 3.5           | 63.2               |
|        | Kermanshah                 | 6         | 2.6     | 2.6           | 65.8               |
|        | Khuzestan                  | 8         | 3.5     | 3.5           | 69.3               |
|        | Kohgiluyeh and Boyer-Ahmad | 4         | 1.7     | 1.7           | 71.0               |
|        | Kurdistan                  | 6         | 2.6     | 2.6           | 73.6               |
|        | Lorestan                   | 8         | 3.5     | 3.5           | 77.1               |
|        | Markazi                    | 8         | 3.5     | 3.5           | 80.5               |
|        | Mazandaran                 | 7         | 3.0     | 3.0           | 83.5               |
|        | North Khorasan             | 2         | .9      | .9            | 84.4               |
|        | Qazvin                     | 5         | 2.2     | 2.2           | 86.6               |
|        | Qom                        | 7         | 3.0     | 3.0           | 89.6               |
|        | Razavi Khorasan            | 3         | 1.3     | 1.3           | 90.9               |
|        | Semnan                     | 4         | 1.7     | 1.7           | 92.6               |
|        | Sistan and Baluchestan     | 8         | 3.5     | 3.5           | 96.1               |
|        | South Khorasan             | 2         | .9      | .9            | 97.0               |
|        | Yazd                       | 4         | 1.7     | 1.7           | 98.7               |
| Zanjan | 3                          | 1.3       | 1.3     | 100.0         |                    |
| Total  | 231                        | 100.0     | 100.0   |               |                    |

Overall, since the differences between the research samples and the research population according to their location in cities is significantly very small (refer to chapter six), distribution of the participated firms in this research are more likely to be the representative for the research population. This in turn, provides meaningful research findings and allow for generalisation of research findings.

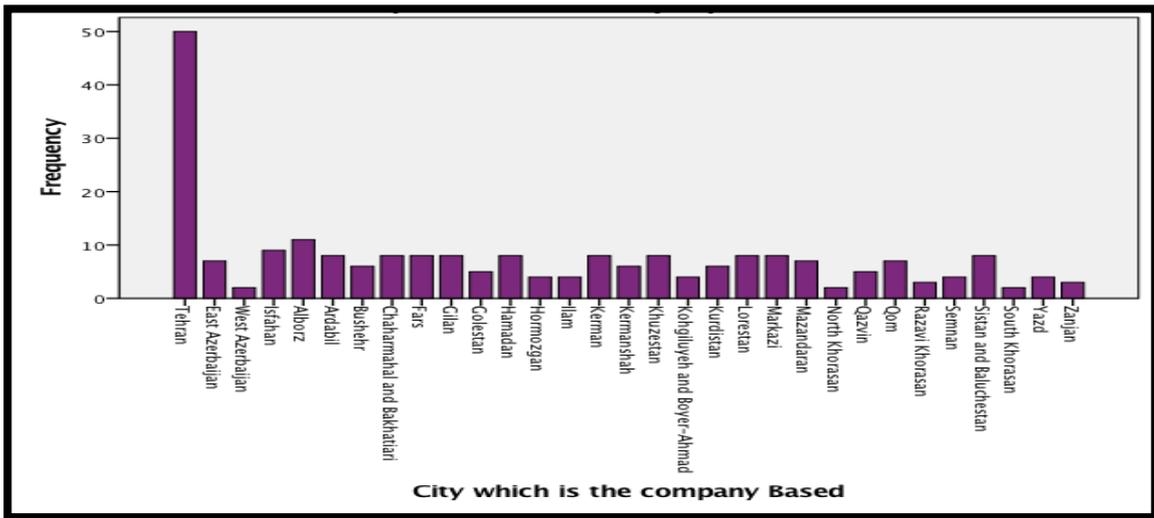


Figure 8.3: Distribution of the Research Samples (Distribution Firms) by Location

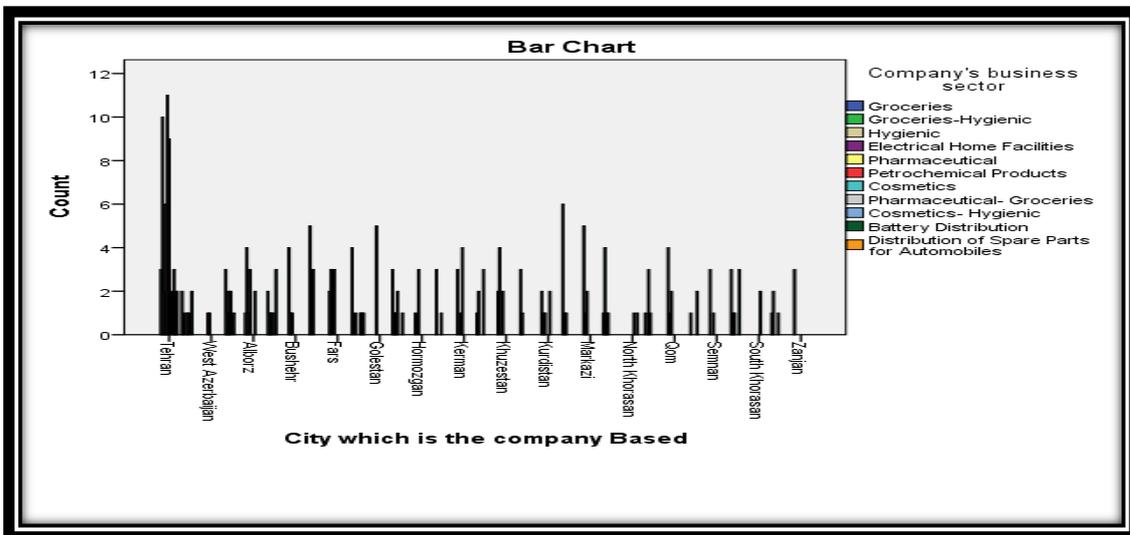


Figure 8.4: Cross-Tabulation of Companies Business Sector and Location of the Companies

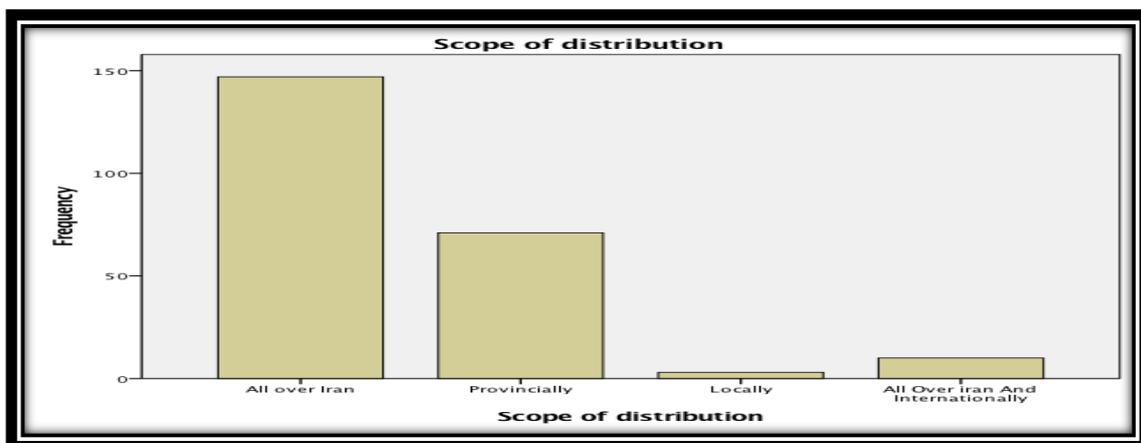
Furthermore, the cross-tabulation of business type and location of distribution firms portrayed in figure 8.4, displays that the majority of the distribution firms are located in Tehran (50 Distribution firms) and highest number of the distribution firms are in Pharmaceutical and Medical Equipment sector located in Tehran (11 distribution firms) accounted for 22.0% of the total number of the business sector, followed by 10 distribution firms (20.0% of the total number) are in Tehran in groceries-hygienic sector, subsequently 9 of the distribution firms (accounted for 18.0 % of the total) are in Tehran in oil and Petroleum Products distribution. Hence there are only 9 distribution firms participated in this study in oil and Petroleum Products distribution which altogether located in Tehran.

### 8.3.1.3 Scope of the Distribution (Market Orientation)

Table 8.4 and Figure 8.5 presents the distribution of the firms according to the scope of business. As can be seen from the table and figure the majority of the research respondents 63.6% of firms were distributing the products all over Iran (147 distribution firms) followed by 30.7% of the firms were distributing the products provincially (71 distribution firms), 1.35 of the firms distributing the products locally (3 distribution firms) and finally 4.3% of the firms distributing the firms both all over Iran and internationally (10 distribution firms). The results recommended that, research firms have extensive experience of all types of market challenges and requirements.

**Table 25** Scope of Firms in Terms of Distribution

|       |                                   | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------------------------------|-----------|---------|---------------|--------------------|
| Valid | All over Iran                     | 147       | 63.6    | 63.6          | 63.6               |
|       | Provincially                      | 71        | 30.7    | 30.7          | 94.4               |
|       | Locally                           | 3         | 1.3     | 1.3           | 95.7               |
|       | All over Iran and Internationally | 10        | 4.3     | 4.3           | 100.0              |
|       | Total                             | 231       | 100.0   | 100.0         |                    |



**Figure 8.5:** Scope of Firms in Terms of Distribution

### 8.3.1.4 Distribution Firm age (Time in Business for the Distribution Firm)

Table 8.5 and Figure 8.6 display the distribution of the research participants based on the time of the distribution firms in business. As can be perceived from the results in the table, majority of the research distribution firms (75.3%) were in business for more than 20 years (174 distribution firms) followed by 10.8% that were in business for 6-10 years (25 distribution firms), 5.2% that were in business for both 11-15 years and 16-20 years (16 distribution firms each) and finally 1.7% were in business for both 3-5 years and less than 3 years (4 distribution firms each). The result shows that most of the distribution firms have involved in adoption few

years after the establishment of the company. The results indicate that most of the distribution firms have diversified a few years after the inception of the firm. While the firms with greater experience within the market, are more successful in adoption and implementation of E-Marketing rather than firms with less than 5 years. This is because, these firms do not have much accumulated experience in market and online marketing activities. The result indicate that distribution firms participated in this study are mixture of new established, experienced, and gradual type of new technology adopters. Therefore, the sample firms are reliable as this study not only intend to understand influencing factors of E-Marketing for experienced firms within market but also gradual type of adopters.

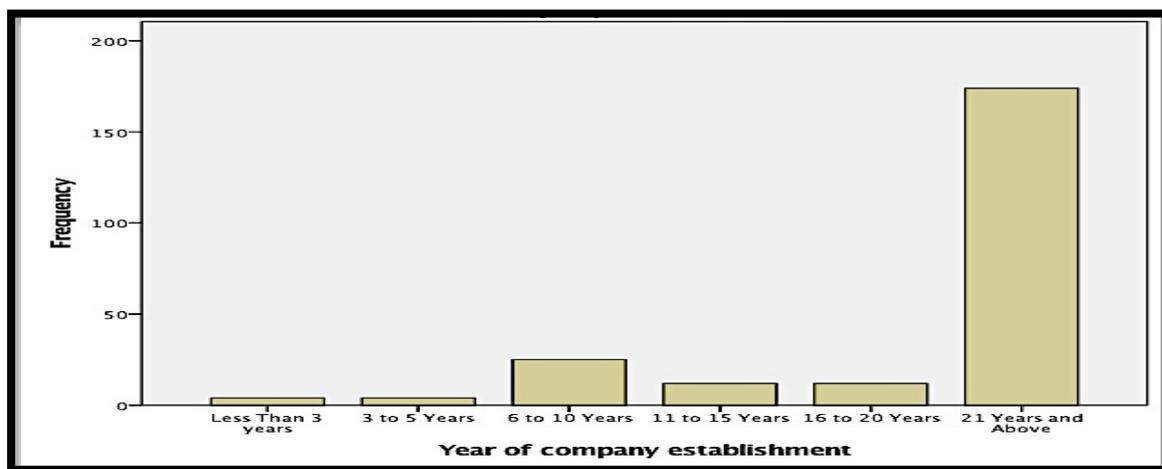


Figure 8.6: Distribution of the Firms by Age

Table 26 Distribution of the Research Participants by Time in Business

|       |                    | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------|-----------|---------|---------------|--------------------|
| Valid | Less Than 3 years  | 4         | 1.7     | 1.7           | 1.7                |
|       | 3 to 5 Years       | 4         | 1.7     | 1.7           | 3.5                |
|       | 6 to 10 Years      | 25        | 10.8    | 10.8          | 14.3               |
|       | 11 to 15 Years     | 12        | 5.2     | 5.2           | 19.5               |
|       | 16 to 20 Years     | 12        | 5.2     | 5.2           | 24.7               |
|       | 21 Years and Above | 174       | 75.3    | 75.3          | 100.0              |
|       | Total              | 231       | 100.0   | 100.0         |                    |

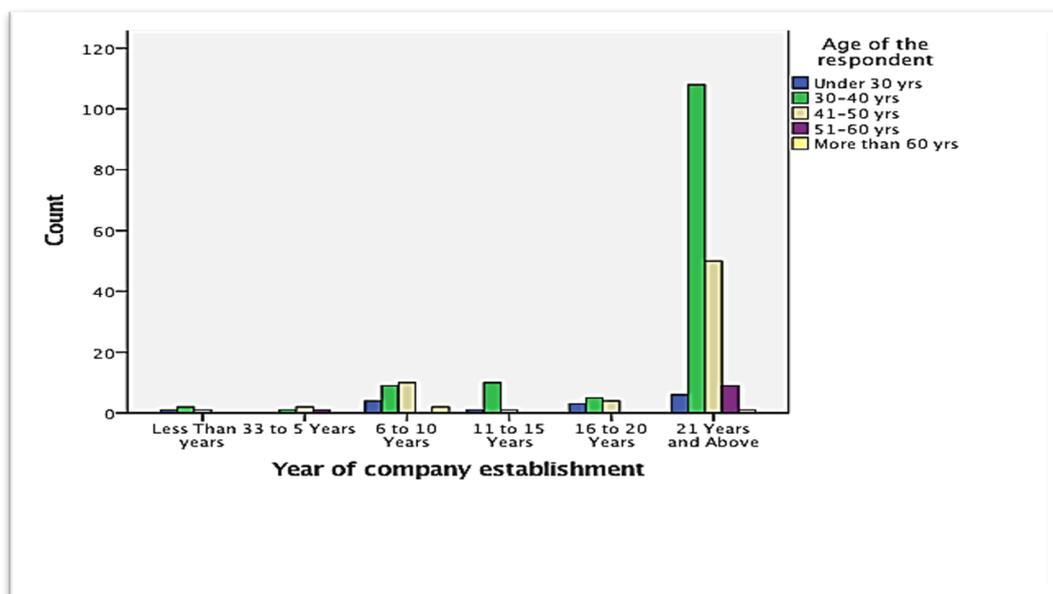
Firm age is likely to be positively associated to intensive adoption. The description of firm age is dual. It refers to the number of the years that firm is in business as well as the age of employees in the firm (Brock, 2000). The older the firm with elder employees, are less likely to adopt the new technology for expanding the business, if they have the ability of surviving in the highly competitive market, they are unlikely to adopt minimum percentage of new technology innovation. Inversely, older firms with younger members of staff are more likely

to embrace new technology innovation in the competitive market using the most recent tools (Rabie, 2013).

To confirm this assumption, a Chi-Square test was conducted for assuring that if there is a association between the age of the firm and the age of the participants who work in distribution firms. The results of Chi-Square are demonstrated in Table 8.6. As can be seen from the table, chi-square  $\chi^2$  value is 39.682<sup>a</sup> with  $p=.005$  which reveal that there is a significant statistical association between the age of the distribution firm and the age of the respondents. As can be seen in Figure 8.7, the majority of the respondents (135 research participants) are in the age between 30-40 years that work in the distribution firms with the age more than 21 years (62.1% of the total year of the company’s establishment). Based on the discussion, and the result, the research sample is reliable and will allow the researcher for generalisation of the research findings and increase the reliability.

**Table 8.6:** Chi-Square Test Results for the association between Firms’ and the Age of the Respondents

|                           | Value               | df | Asymptotic Significance (2-sided) |
|---------------------------|---------------------|----|-----------------------------------|
| <b>Pearson Chi-Square</b> | 39.682 <sup>a</sup> | 20 | .005                              |
| <b>Likelihood Ratio</b>   | 32.915              | 20 | .034                              |
| <b>N of Valid Cases</b>   | 231                 |    |                                   |



**Figure 8.7:** Distribution of the Participants by Year of Company Establishment and Age of the Participants

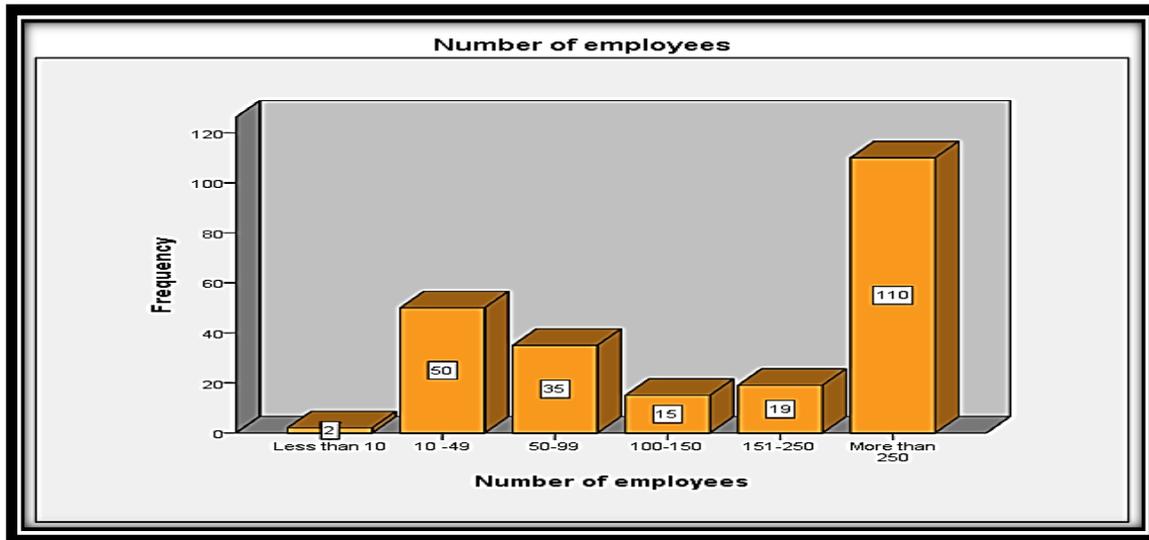
### 8.3.1.5 Number of Employees

This study determines the size of the company by the number of employees. Size of the companies is one of the important components for profile of the organisation. The sample research was comprised of small, medium size and large firms. This element is one of the influencing variable for adoption of E-Marketing, However in the first phase of the study (qualitative phase) after analysing the data, this factor eliminated and categorised as less important factor for adoption of E-Marketing among distribution firms (Chapter six).As discussed earlier, large firms have more capital and annual sale in comparing with the small and medium distribution firms, Thus, it is important to find out, How much of the marketing budget of the distribution companies in different sizes, allocate for the adoption and implementation of E-Marketing.

As can be seen in Table 8.7 and Figure 8.8, the majority of distribution firms (110 distribution firms with the percentage of 47.6% of total number of firms) fall into the category of distribution firms that has employees more than 250, followed by 50 distribution firms in the category of the firms with the number of employees between 10-49 (accounted for 21.6% of total number of the distribution firms), 35 distribution firms in the category of the firms with the number of employees between 50-99 (with the percentage of 15.2 of total distribution firms), 19 distribution firms in the category of the firms with the number of employees between 151-250 (with the percentage of 8.2 of total distribution firms), 15 distribution firms in the category of the firms with the number of employees between 50-99 (with the percentage of 6.5 of total distribution firms) and finally only 2 distribution firms in the category of the firms with the number of employees less than 10 (with the percentage of 0.9 of total distribution firms).

**Table 8.7:** Distribution of Research Samples by Number of Employees

|       |               | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------------|-----------|---------|---------------|--------------------|
| Valid | Less than 10  | 2         | .9      | .9            | .9                 |
|       | 10 -49        | 50        | 21.6    | 21.6          | 22.5               |
|       | 50-99         | 35        | 15.2    | 15.2          | 37.7               |
|       | 100-150       | 15        | 6.5     | 6.5           | 44.2               |
|       | 151-250       | 19        | 8.2     | 8.2           | 52.8               |
|       | More than 250 | 110       | 47.6    | 47.6          | 100.0              |
|       | Total         | 231       | 100.0   | 100.0         |                    |



**Figure 8.8:** Distribution of Research Samples by Number of Employees

Firm size is one of the key factors that shows the ability of distribution firms in adoption of new technology innovations. It has been well-proven in the literature that small firm size have limited resources and lack of professional skills in different areas (Bharati, 2010) whereas large size firms are more likely to adopt IT innovation as they are more risk taking and have adequate resources and infrastructure that facilitates their implementation (Fichman and Kemerer, 1997; Rabie, 2013, Al-Somali, 2011; and Rahayu, 2015). Number of employees play important role in the organisation, indicates the ability of the firm in adoption of new innovation technology as large firms are more likely to adopt new technology (Iddris, and Ibrahim, 2015; Dlodlo and Dhurup, 2013; Mazzarol, 2015; and Sheikh, Shahzad, and ku Ishak, 2017). Firms with number of employees less than 10 are less likely to adopt or only using basic elements of E-Marketing in compare to medium firms which are capable of adoption of more E-Marketing tools yet not on the scale as equal as large firms (Stockdale, 2004).

Notably, the largest business group in this study was large businesses (144 distribution firms) which accounted as 62.3%, which represents more than half of research samples. Followed by 15.2% of the research samples are the category of medium distribution firms (35 distribution firms), 50 distribution firms are small enterprises (with the percentage of 21.6% of total distribution firms) and finally 2 of the distribution firms are in the category of micro firms (accounted for 0.2% of total research samples). Since this research comprises of all different sizes of the organisations, and as the majority of the participated firms are comprised of large firms, this confirms the findings of previous studies that, larger firms have more capability of the IT innovations. Also, availability of all firms' size in this research, is not only reflects the awareness of the medium and small size firms of the importance of E-Marketing adoption and

implementation, but also might imitate a different relationship of the firm size and E-Marketing adoption that, all types of firms tend to adopt new technology and not just large firms. Hence, the results increase the reliability of the research and allow the researcher for generalisation of the results.

### **8.3.1.6 Annual Sales of the Distribution Firms**

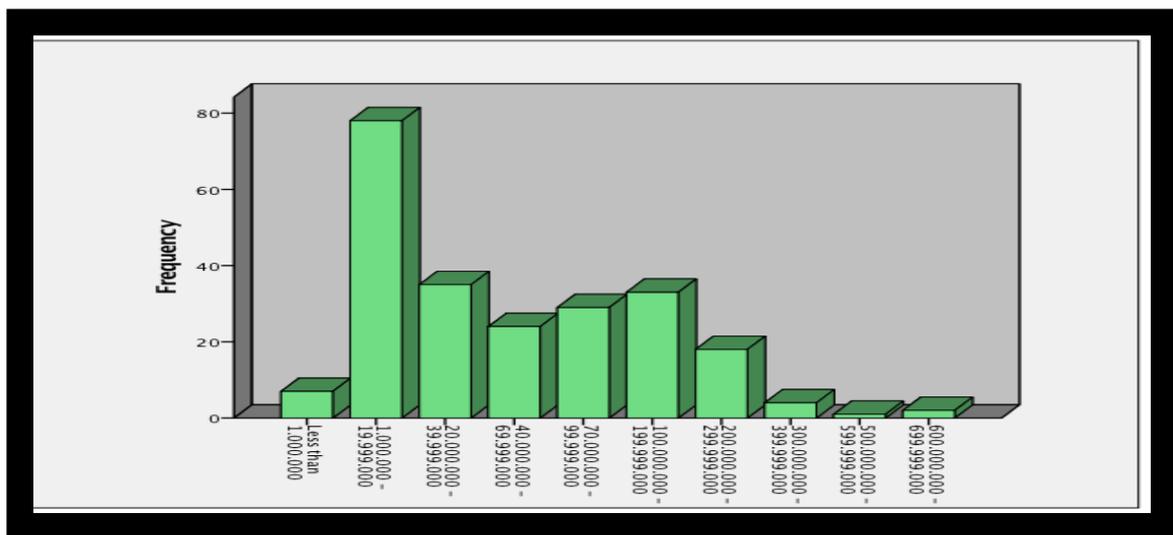
As discussed earlier, this research involved with different firm size from small, medium to large firms, hence the business turnover (annual sales) of each firm is one of the essential elements in this research. This element is important as one of the components that determines whether the organisation can participate in the research. According to the reports by Rhodes (2018), Bamford (2018), and CBI (2020), small businesses in Iran that have between 10-46 number of employees, will have the annual turnover not more than 540 billion IRR (the equivalent of around £20 million sterling pounds). Consequently, medium businesses in Iran that have between 50-99 number of employees will have the annual turnover more than 812 billion IRR (the equivalent of around £70 million sterling pounds). Hence, large businesses in Iran that have more than 100 number of employees, will have the annual turnover more than 812 billion IRR (the equivalent of more than around £70 million sterling pounds). This amount is calculated in the date of the data collection, and this is based on the exchange rate that have been announced by Central Bank of England and Central Bank of Iran between IRR and sterling pound -3<sup>rd</sup> of June 2018  $1 \text{ IRR (Iranian Rial)} = 0.0000184690 \text{ £}$ .

Note that although Iran's official currency is Rial (IRR), however the currency that is used in Iran is known as Toman (1 Toman is Equivalent to 10 Rials). Consequently, since May 2018 the Iranian Rial currency (IRR) has lost one-third of its value which made the currency 120000 to the sterling pound which this was 24000 in 2013. This led to a big currency difference when converted the Iran's Rial (IRR) to Sterling pound (Table 8.8). As can be seen in Table 8.8, the majority of distribution firms (45.9%) were in the category 1.000.000 - 19.999.000 annual sales (106 distribution firms), 17.3% were in the category of 20.000.000 - 39.999.000 annual sales (40 distribution firms), 10.4% were in the category 40.000.000 - 69.999.000 annual sales (24 distribution firms), 7.4% were in the category 100.000.000 - 199.999.000 annual sales (17 distribution firms), 6.5% were in the category 200.000.000 - 299.999.000 annual sales (15 distribution firms), 6.1% were in the category 70.000.000 - 99.999.000 annual sales (14 distribution firms), 3.5% were in category of Less than 1.000.000 annual sales (8 distribution firms), 1.7% were in category of 300.000.000 - 399.999.000 annual sales (4 distribution firms),

0.9 % were in category of 600.000.000 - 699.999.000 annual sales (2 distribution firms), only 0.4 % were in category of 500.000.000 - 599.999.000 annual sales, and finally no distribution firms were in the category of 400.000.000 - 499.999.000 annual sales.

**Table 27** Distribution of the Firms by Annual Sales (£)

|       |                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------------------------|-----------|---------|---------------|--------------------|
| Valid | Less than 1.000.000       | 7         | 3.0     | 3.0           | 3.0                |
|       | 1.000.000 - 19.999.000    | 78        | 33.8    | 33.8          | 36.8               |
|       | 20.000.000 - 39.999.000   | 35        | 15.2    | 15.2          | 51.9               |
|       | 40.000.000 - 69.999.000   | 24        | 10.4    | 10.4          | 62.3               |
|       | 70.000.000 - 99.999.000   | 29        | 12.6    | 12.6          | 74.9               |
|       | 100.000.000 - 199.999.000 | 33        | 14.3    | 14.3          | 89.2               |
|       | 200.000.000 - 299.999.000 | 18        | 7.8     | 7.8           | 97.0               |
|       | 300.000.000 - 399.999.000 | 4         | 1.7     | 1.7           | 98.7               |
|       | 500.000.000 - 599.999.000 | 1         | .4      | .4            | 99.1               |
|       | 600.000.000 - 699.999.000 | 2         | .9      | .9            | 100.0              |
|       | <b>Total</b>              | 231       | 100.0   | 100.0         |                    |



**Figure 8.9:** Distribution of the Firms by Annual Sales (£)

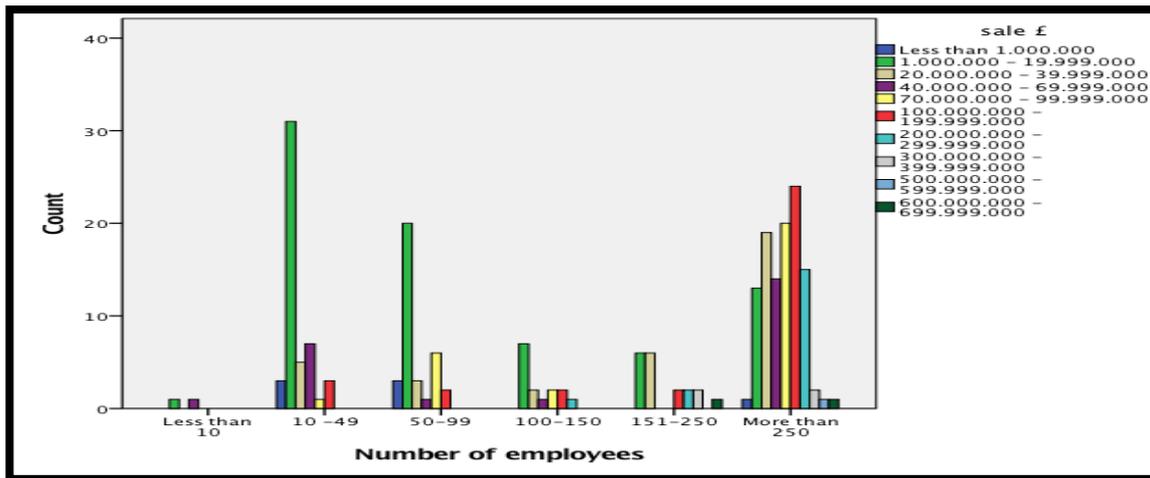
Table 8.8 and Figure 8.9, illustrates the distribution of the firms' annual sales and number of employees. As it can be seen from the table, the majority of the firms (110 distribution firms) which accounted as 47.6%, are among the firms with the number of employees more than 250, 24 of the research distribution firms have the annual sales between 100,000.000-199.999.000, and 20 of these firms have the annual sales between 70,000,000- 99,999,000. Subsequently, 50 distribution firms (21.6%) have the number of employees between 10-49, 31 of these firms have the annual sales between 1,000.000-19.999.000, 35 distribution firms (15.2%) have the

number of employees between 50-99, and 20 of these firms have the annual sales between 1,000.000-19.999.000. The results show, as the companies getting larger and have more employees the annual sales increasing and as the number of firms decreasing, the annual sales are also decreasing.

To confirm this statement, a Chi-Square test was conducted to ensure that there is a significant relationship between the annual sales and the number of the employees of distribution firms. Table 8.10 illustrates the result of chi-square. As can be seen from the table, chi-square ( $\chi^2$ ) value was 103.834<sup>a</sup> with  $p = .000$ . The result show that there is a significant statistical association between the number of employees and the annual sales within the research samples. The findings increased the reliability of the research and allow for the generalisation of the research findings.

**Table 8.9:** Annual Sales \* Number of Employees Cross-tabulation

| Item                         |                           | Number of Employees |        |        |         |         |               |        | Total |  |
|------------------------------|---------------------------|---------------------|--------|--------|---------|---------|---------------|--------|-------|--|
|                              |                           | Less Than 10        | 10 -49 | 50-99  | 100-150 | 151-250 | More Than 250 |        |       |  |
| Annual Sales                 | Less than 1.000.000       | 0                   | 3      | 3      | 0       | 0       | 1             | 7      | 3.0%  |  |
|                              | 1.000.000 - 19.999.000    | 1                   | 31     | 20     | 7       | 6       | 13            | 78     | 33.8% |  |
|                              | 20.000.000 - 39.999.000   | 0                   | 5      | 3      | 2       | 6       | 19            | 35     | 15.2% |  |
|                              | 40.000.000 - 69.999.000   | 1                   | 7      | 1      | 1       | 0       | 14            | 24     | 10.4% |  |
|                              | 70.000.000 - 99.999.000   | 0                   | 1      | 6      | 2       | 0       | 20            | 29     | 12.6% |  |
|                              | 100.000.000 - 199.999.000 | 0                   | 3      | 2      | 2       | 2       | 24            | 33     | 14.3% |  |
|                              | 200.000.000 - 299.999.000 | 0                   | 0      | 0      | 1       | 2       | 15            | 18     | 7.8%  |  |
|                              | 300.000.000 - 399.999.000 | 0                   | 0      | 0      | 0       | 2       | 2             | 4      | 1.7%  |  |
|                              | 500.000.000 - 599.999.000 | 0                   | 0      | 0      | 0       | 0       | 1             | 1      | 0.4%  |  |
|                              | 600.000.000 - 699.999.000 | 0                   | 0      | 0      | 0       | 1       | 1             | 2      | 0.9%  |  |
|                              | Count                     | 2                   | 50     | 35     | 15      | 19      | 110           | 231    |       |  |
|                              | % Within Annual Sales     | 0.9%                | 21.6%  | 15.2%  | 6.5%    | 8.2%    | 47.6%         | 100.0% |       |  |
| % Within Number of Employees | 100.0%                    | 100.0%              | 100.0% | 100.0% | 100.0%  | 100.0%  | 100.0%        |        |       |  |



**Figure 8.10:** Distribution of the Respondents by Annual Sales and Number of Employees

**Table 8.10:** Chi-Square Test Results for the association between Annual Sale and the Number of Employee

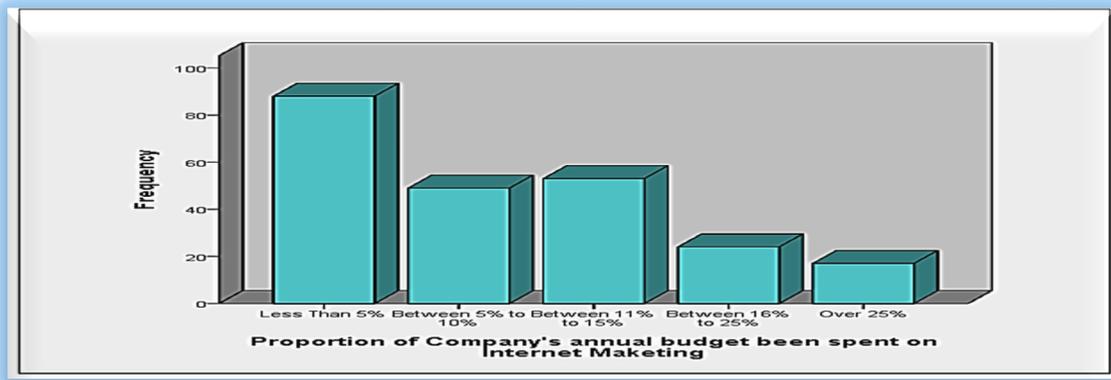
|                           | Value                | df | Asymptotic Significance (2-sided) |
|---------------------------|----------------------|----|-----------------------------------|
| <b>Pearson Chi-Square</b> | 103.834 <sup>a</sup> | 45 | .000                              |
| <b>Likelihood Ratio</b>   | 114.468              | 45 | .000                              |
| <b>N of Valid Cases</b>   | 231                  |    |                                   |

### 8.3.1.7 Marketing Budget of the Distribution Firms

Table 8.11 and Figure 8.11 portray the proportion of the research distribution firms' annual budget on marketing. As can be seen from the table, majority of research distribution firms (88 distribution firms) have a marketing budget that is less than 10 per cent (accounted as 38.1% of total distribution firm budget). Subsequently, 22.9% of the research participants of distribution firms have the marketing budget that is between 11% to 15% of total distribution firm budget (53 distribution firms), 21.2% of the research participants have the marketing budget that is between 5% to 10% of total distribution firm budget (49 distribution firms), 10.4% of the research participants have the marketing budget that is between 16% to 25% of total distribution firm budget (24 distribution firms), and finally the minority of distribution firms (7.4%) have a marketing budget that is over 25% of the total distribution firm budget (17 distribution firms).

**Table 8.11:** Proportion of Company's Annual Budget Been Spent on Marketing

|              |                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------------|---------------------------|-----------|---------|---------------|--------------------|
| <b>Valid</b> | <b>Less Than 5%</b>       | 88        | 38.1    | 38.1          | 38.1               |
|              | <b>Between 5% to 10%</b>  | 49        | 21.2    | 21.2          | 59.3               |
|              | <b>Between 11% to 15%</b> | 53        | 22.9    | 22.9          | 82.3               |
|              | <b>Between 16% to 25%</b> | 24        | 10.4    | 10.4          | 92.6               |
|              | <b>Over 25%</b>           | 17        | 7.4     | 7.4           | 100.0              |
| <b>Total</b> |                           | 231       | 100.0   | 100.0         |                    |



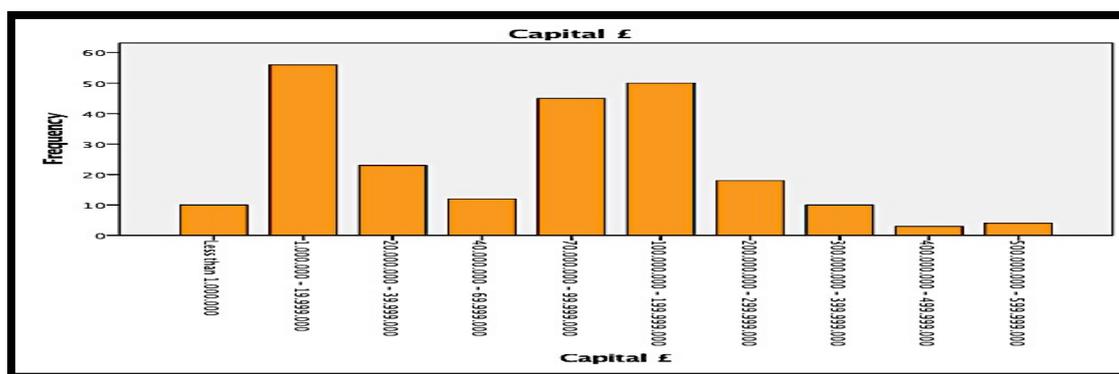
**Figure 8.11:** Proportion of Company's Annual Budget Been Spent on Marketing

### 8.3.1.8 Capital of Distribution Firms

Previous studies such as Rabie (2013), Aljowaidi, 2015; Qashou and Saleh, 2018; Alavion *et al.*, 2017; Khaskheli and Jun, 2016; Gyamfi, 2016; Hajli *et al.*, 2014; Raoofi, 2012; Mutula and Brakel, 2006; Shah Alam *et al.*, 2011; Le *et al.* 2012; and Lacovou *et al.* (1995) discussed the important role of the firm's capability and readiness and found that firms with more capital, are more likely to adopt IT innovations, as they have more access to financial resources. Table 8.12 and Figure 8.12 demonstrates the distribution of the research participants according to their capital. As can be seen from the table, majority of the distribution firms (24.2%) were in the category of the capital between 1.000,000-19.999,000 Pounds (56 Distribution Firms), 21.6% were in the category of the capital between 100.000.000-199.000.000 pounds (50 Distribution Firms), 19.5% were in the category of the capital between 700.000.000-99.000.000 Pounds (45 Distribution Firms), 10.0% were in the category of the capital between 20.000,000-39.000.000 Pounds (23 Distribution Firms), 7.8% were in the category of the capital between 20.000.000-39.000.000 Pounds (18 Distribution Firms), 5.2% were in the category of the capital between 40.000.000-69.000.000 Pounds (12 Distribution Firms), 4.3% were in both the category of the capital less than 1.000.000 Pounds (10 Distribution Firms) and between 300.000.000-399.999.000 Pounds, 1.3% were in the category of the capital from 500.000.000-599,000,00 Pounds (4 Distribution Firms), 1.7% were in the category of the capital from 400.000.000-499.000.000 Pounds (3 Distribution Firms) and finally no distribution firms were in the category of the capital from 600.000.000-699.999.000 Pounds.

**Table 8.12:** Distribution of the Participants by Capital (£)

|       |                           | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|---------------------------|-----------|---------|---------------|--------------------|
| Valid | Less than 1.000.000       | 10        | 4.3     | 4.3           | 4.3                |
|       | 1.000.000 - 19.999.000    | 56        | 24.2    | 24.2          | 28.6               |
|       | 20.000.000 - 39.999.000   | 23        | 10.0    | 10.0          | 38.5               |
|       | 40.000.000 - 69.999.000   | 12        | 5.2     | 5.2           | 43.7               |
|       | 70.000.000 - 99.999.000   | 45        | 19.5    | 19.5          | 63.2               |
|       | 100.000.000 - 199.999.000 | 50        | 21.6    | 21.6          | 84.8               |
|       | 200.000.000 - 299.999.000 | 18        | 7.8     | 7.8           | 92.6               |
|       | 300.000.000 - 399.999.000 | 10        | 4.3     | 4.3           | 97.0               |
|       | 400.000.000 - 499.999.000 | 3         | 1.3     | 1.3           | 98.3               |
|       | 500.000.000 - 599.999.000 | 4         | 1.7     | 1.7           | 100.0              |
|       | <b>Total</b>              | 231       | 100.0   | 100.0         |                    |



**Figure 8.12:** Distribution of the Research Participants by Capital (£)

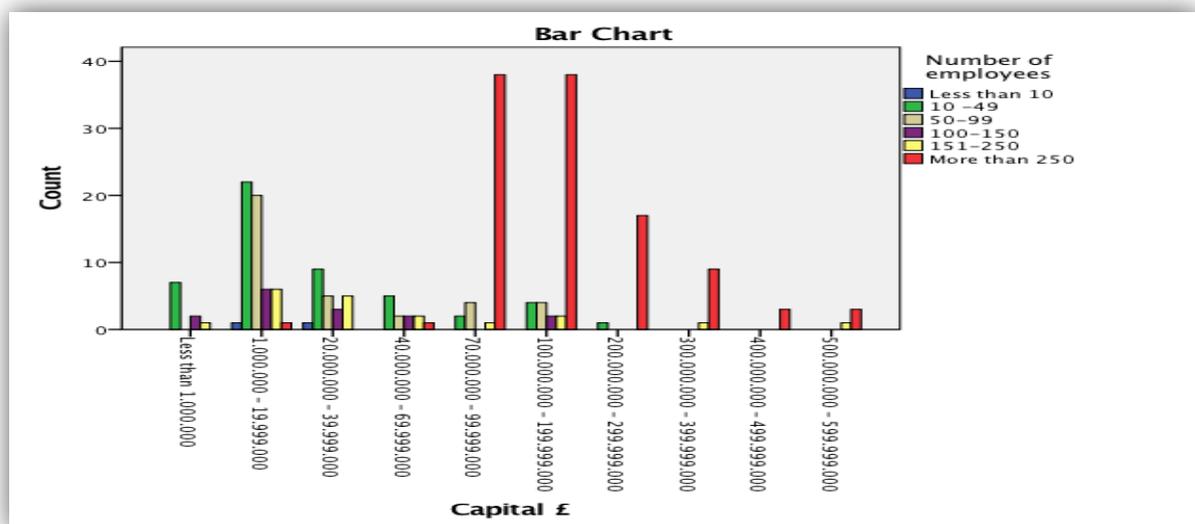
Table 8.13 and Figure 8.13, illustrate the cross tabulation of the firms' capital and number of employees. As can be seen from the table, the majority of the firms (110 distribution firms) which accounted as 47.6% of total number of employees are among the firms with the number of employees more than 250 which according to (CBI, 2019) accounted as large firms ,76 of these firms has the capital both between 70,000,000-199.999.000 (£) and 17 of these firms have the capital from 200,000,000- 299,999,000 (£). on the other hand, 50 distribution firms (21.6%) have the number of employees between 10-49, which according to (CBI, 2019) accounted as medium firms, 22 of these firms have the capital between 1,000.000-19.999.000 (£). Subsequently, 35 distribution firms (15.2%) have the number of employees between 50-99 (Medium firms) of which, 20 of them have the capital between 1,000.000-19.999.000 (£). in the other word, as the companies getting larger, the capital increasing whereas the Small-Medium firms have less capital than large firms.

To confirm this statement, a Chi-Square test was conducted to ensure that there is a significant association between the annual sales and the number of the employees of distribution firms.

Table 8.14 illustrates the result of chi-square. As can be seen from the table, chi-square ( $\chi^2$ ) value was 177.916<sup>a</sup> with  $p = .000$  which show that there is a significant statistical association between the number of employees and the capital of the research samples. The result increases the reliability of the research and allow the researcher for generalisation of the research findings.

**Table 8.13:** Capital \* Number of Employees Cross-tabulation

| Item                         |                           | Number of Employees |        |        |         |         |               | Total   |         |  |
|------------------------------|---------------------------|---------------------|--------|--------|---------|---------|---------------|---------|---------|--|
|                              |                           | Less than 10        | 10 -49 | 50-99  | 100-150 | 151-250 | More than 250 |         |         |  |
| Annual Sales                 | Less than 1.000.000       | 0                   | 7      | 0      | 2       | 1       | 0             | 10      | 4.3%    |  |
|                              | 1.000.000 - 19.999.000    | 1                   | 22     | 20     | 6       | 6       | 1             | 56      | 24.2 %  |  |
|                              | 20.000.000 - 39.999.000   | 1                   | 9      | 5      | 3       | 5       | 0             | 23      | 10.0 %  |  |
|                              | 40.000.000 - 69.999.000   | 0                   | 5      | 2      | 2       | 2       | 1             | 12      | 5.2%    |  |
|                              | 70.000.000 - 99.999.000   | 0                   | 2      | 6      | 0       | 1       | 38            | 45      | 19.5 %  |  |
|                              | 100.000.000 - 199.999.000 | 0                   | 4      | 4      | 2       | 2       | 38            | 50      | 21.6 %  |  |
|                              | 200.000.000 - 299.999.000 | 0                   | 1      | 4      | 0       | 0       | 17            | 18      | 7.8%    |  |
|                              | 300.000.000 - 399.999.000 | 0                   | 0      | 0      | 0       | 1       | 9             | 10      | 4.3%    |  |
|                              | 500.000.000 - 599.999.000 | 0                   | 0      | 0      | 0       | 0       | 3             | 3       | 1.3%    |  |
|                              | 600.000.000 - 699.999.000 | 0                   | 0      | 0      | 0       | 1       | 3             | 4       | 1.7%    |  |
|                              | Count                     |                     | 2      | 50     | 35      | 15      | 19            | 110     | 231     |  |
|                              | % within Capital          |                     | 0.9%   | 21.6%  | 15.2%   | 6.5%    | 8.2%          | 47.6%   | 100.0 % |  |
| % within Number of Employees |                           | 100.0 %             | 100.0% | 100.0% | 100.0%  | 100.0%  | 100.0%        | 100.0 % |         |  |



**Figure 8.13:** Distribution of the Participants by Capital and Number of Employees

**Table 8.14:** Chi-Square test results for the Association between Capital and the Number of Employee

|                    | Value                | df | Asymptotic Significance (2-sided) |
|--------------------|----------------------|----|-----------------------------------|
| Pearson Chi-Square | 177.916 <sup>a</sup> | 45 | .000                              |
| Likelihood Ratio   | 217.121              | 45 | .000                              |
| N of Valid Cases   | 231                  |    |                                   |

### 8.3.1.9 Type of Business Ownership

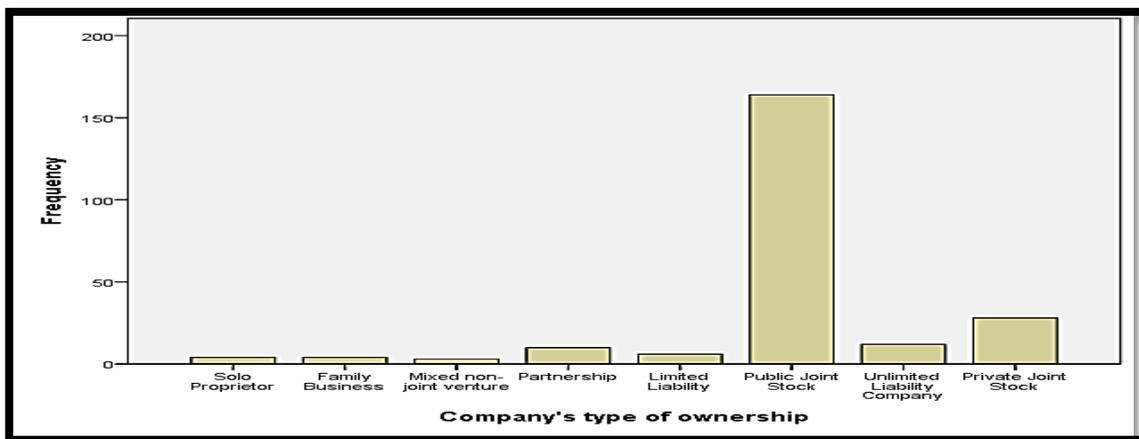
There are eight types of business ownership in Iran: Solo proprietor, family business, mixed non-joint venture, partnership, public joint-stock, unlimited liability company, Limited Liability, and private joint stock. The types of registering are varying according to requirement of the performances and executive guideline for each business. New technology adoption in Iran is still in its early stages. However, due to the importance of E-Marketing and its impact on the country's GDP (See Chapter six), the compile and implementation of laws and regulations related to this phenomenon is considered by Iran's authorities such as the bill establishing for Association of Informatics, software author's rights law, law to the settlement establishing the World Intellectual Property Administration, regulations of computer information networks, etc. (CBI, 2020; and Financial Tribune, 2020). Internal policies and the flexibility of setting and execution of such strategies are varying depend on types of ownership in each organisation. Businesses such as one-man business, family business, and partnership are more flexible for authorise such policies in regard of the new technology adoption. These rules are different from the rules that legislate by government. Companies with more shareholders will have more bureaucracy and thus, it takes longer for approval of such policies and new assigned strategies. (Solaymani, 2012; and Ghobakhloo, Tang, 2015).

Table 8.15 and Figure 8.14 illustrate that most of the distribution firms in this study are registered under the public joint stock which accounted 71% (164 distribution firms) of total distribution firms, followed by private joint stock, accounted 12.1% (28 distribution firms). While unlimited liability company accounted 5.2% (12 distribution firms), Partnership accounted 4.3% (10 distribution firms), limited liability accounted 2.6% (6 distribution firms), both solo proprietor and family business accounted for 1.7% (4 distribution firms each), and finally the least frequent company registration type was mixed non-joint venture listed 1.3% (3 distribution firms). As can be seen, majority of the firms are registered under public joint stock. Such companies can increase to huge number of resources from the public by issuing

the shares and as there is no limit on number of shareholders, the shareholders can be increased to meet the financial requirement (Reddy, 2017).

**Table 28** Company's Type of Ownership

|       |                             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------------------------|-----------|---------|---------------|--------------------|
| Valid | Solo Proprietor             | 4         | 1.7     | 1.7           | 1.7                |
|       | Family Business             | 4         | 1.7     | 1.7           | 3.5                |
|       | Mixed non-joint venture     | 3         | 1.3     | 1.3           | 4.8                |
|       | Partnership                 | 10        | 4.3     | 4.3           | 9.1                |
|       | Limited Liability           | 6         | 2.6     | 2.6           | 11.7               |
|       | Public Joint Stock          | 164       | 71.0    | 71.0          | 82.7               |
|       | Unlimited Liability Company | 12        | 5.2     | 5.2           | 87.9               |
|       | Private Joint Stock         | 28        | 12.1    | 12.1          | 100.0              |
|       | Total                       | 231       | 100.0   | 100.0         |                    |



**Figure 8.14:** Company's Type of Ownership

### 8.3.2 Respondent Profile

#### 8.3.2.1 Position of the Research Participant in the Distribution Firm

Since this study focuses on investigation of influencing factors of E-Marketing adoption among Iranian Distribution firms, it is vital to determine suitable participants to answer the survey questionnaire. This research has developed the survey questionnaire exclusively for the suitable respondents who are experienced in adoption and implementation of E-Marketing to make the results reliable.

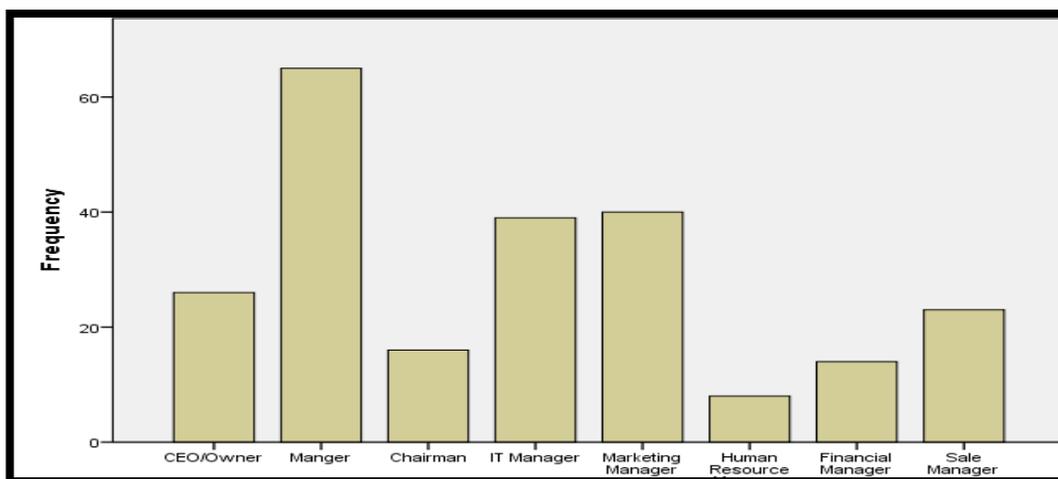
Table 8.16 and Figure 8.15 determine the distribution of the research samples by their position in the organisation. As can be seen, majority of participants were manager of the distribution firms accounted 28.1% (65 participants) followed by marketing manager 17.3% (40 participants), IT manager 16.9% (39 participants). However, there was less CEO/owner and

chairman found in this study which accounted 11.3% and 6.9% (26 and 16 participants) respectively. Notably there were also respondents from positions such as sale manager, financial manager and human resource manager accounted 10.0%, 6.1% and 3.5% (23, 14 and 8 participants) respectively.

The high position of respondents, shows the validity of responses since the research respondents were from CEO/manager to top management levels in distribution firms, as could be expected to be more knowledgeable about their firm’s E-Marketing activities. Thus, the study met the requirement related to the participation of appropriate respondents in the adoption of E-Marketing in distribution firms. All the survey questionnaires filled by the 231 respondents were reliable in this research.

**Table 29** Distribution of Research Samples by Respondents’ Position

|       |                        | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------------------|-----------|---------|---------------|--------------------|
| Valid | CEO/Owner              | 26        | 11.3    | 11.3          | 11.3               |
|       | Manger                 | 65        | 28.1    | 28.1          | 39.4               |
|       | Chairman               | 16        | 6.9     | 6.9           | 46.3               |
|       | IT Manager             | 39        | 16.9    | 16.9          | 63.2               |
|       | Marketing Manager      | 40        | 17.3    | 17.3          | 80.5               |
|       | Human Resource Manager | 8         | 3.5     | 3.5           | 84.0               |
|       | Financial Manager      | 14        | 6.1     | 6.1           | 90.0               |
|       | Sale Manager           | 23        | 10.0    | 10.0          | 100.0              |
|       | Total                  | 231       | 100.0   | 100.0         |                    |



**Figure 8.15:** Distribution of Research Samples According to the Position of Respondents

### 8.3.2.2 Age of the Research Participant in the Distribution Firm

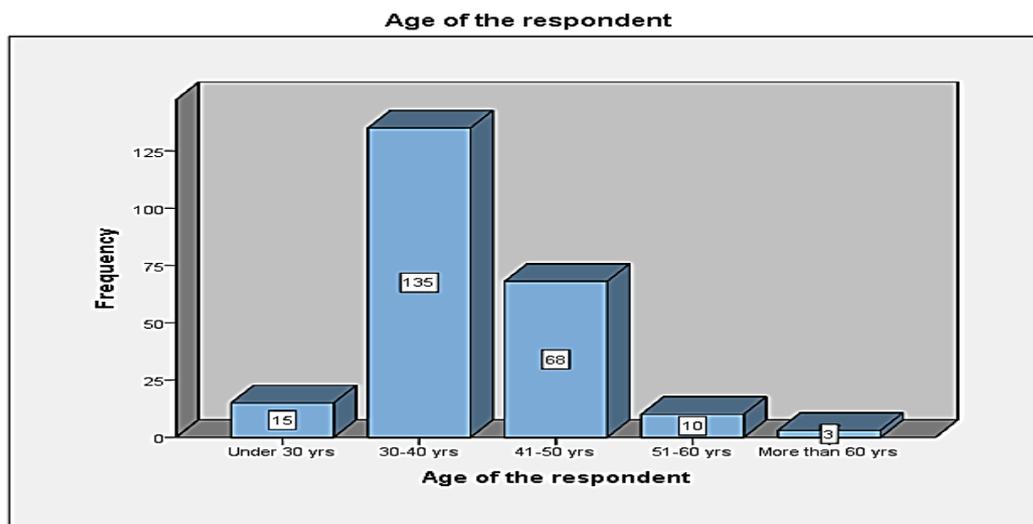
Age is one of the factors that might impact on the adoption of E-Marketing and new technology. This variable investigated in various studies such as Abdulaziz (2017); Rahayu (2015);

Wachira (2016), Shemi (2012) and Olatokun (2014) found that the younger the employees in the organization more likely new technology been adopted in the firms. On the other hand, studies such as Ahmad Zaid (2014) and Liébana-Cabanillas (2015) found that the adoption of such phenomena is not related to a variable such as age and it has negative impact on the adoption of new technology.

Table 8.17 and Figure 8.16 present the distribution of research respondents by age. As can be seen from the table most of the respondents accounted 58.4% (135 participants) aged between 30-40 years, followed by 29.4% (68 participants) in the category of age between 41-45 years, 6.5% (15 participants) in the category of age under 30 years, 4.3% (10 participants) in the category of age between 51-60 years, and finally 1.3% (3 participants) in the category of age more than 60 years. In the other word, the majority of the research participants (64.9%) were less than 41 years of age. The results took into account that 64.9% of the research respondents were less than 40 years old and are young employees.

**Table 30** Distribution of the Respondents by Age

|       |                    | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------|-----------|---------|---------------|--------------------|
| Valid | Under 30 years     | 15        | 6.5     | 6.5           | 6.5                |
|       | 30-40 years        | 135       | 58.4    | 58.4          | 64.9               |
|       | 41-50 years        | 68        | 29.4    | 29.4          | 94.4               |
|       | 51-60 years        | 10        | 4.3     | 4.3           | 98.7               |
|       | More than 60 years | 3         | 1.3     | 1.3           | 100.0              |
|       | <b>Total</b>       | 231       | 100.0   | 100.0         |                    |



**Figure 8.16:** Distribution of the Research Participants by Age

For further investigation of possible relationship between the age of the respondent and the implementation of E-Marketing, a cross-tabulation for both variables were conducted. Table

8.18 presents the cross-tabulation of age and research participants' involvement in E-Marketing implementation. As can be seen in table the highest percentage of involvement in E-Marketing implementation in distribution firms were among the respondents in the category between 30-40 years (58.4%) and the smallest percentage of involvement were among the participants in the category of age more than 60 years (1.0%). Furthermore, the majority of involvement in E-Marketing implementation was among the research respondents less than 41 years of old (64.6%). This reveals that young employee members are more likely to adopt and implement E-Marketing, this goes in line with the findings of Abdulaziz (2017); Rahayu (2015); Mohammed (2013), Wachira (2016), Shemi (2012) and Olatokun (2014).

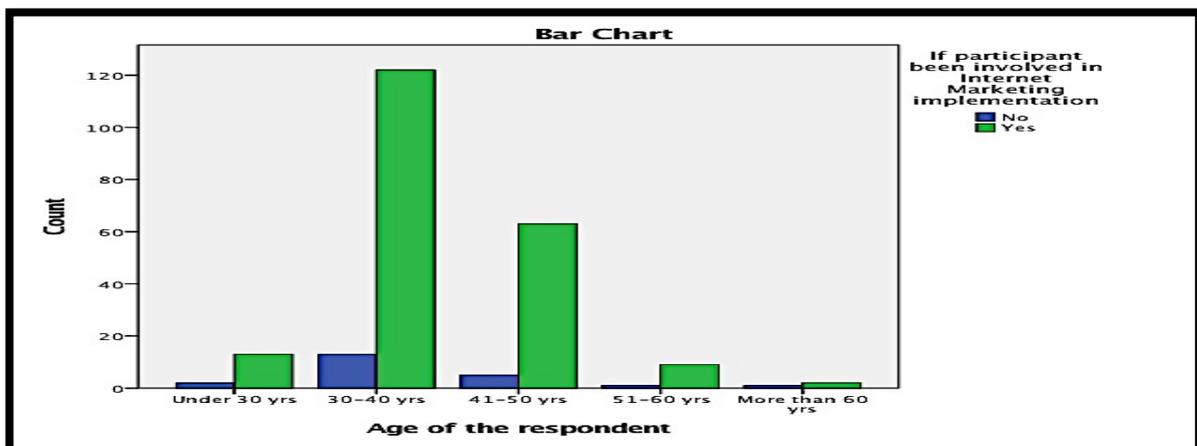
To approve this statement, a Chi-Square test was conducted to ensure that there is an association between the research participants' age and their involvement in E-Marketing implementation in distribution firms. The results of Chi-Square are demonstrated in table 8.19. As can be seen from the table, chi-square ( $\chi^2$ ) value was 2.603<sup>a</sup> with  $p = .626$ , The result show that there is no significant statistical association between the age and involvement in E-Marketing implementation within the research participants. The findings go in line with Ahmad Zaid (2014), Rabie (2013), Rohm and Swaminathan (2004) and Liébana-Cabanillas (2015) and suggest that there is a need for more research to investigate the influence of age on involvement and implementation of E-Marketing. Nowadays, the impact of age on the decision maker's intention to adopt E-Marketing remains vague. For example, some studies found a positive relationship between age and adoption (Stafford *et al.*, 2004), while other scholars stated insignificant relationship (Joines *et al.*, 2003, El-Gohary, 2009). Age of individuals was measured as an interpreter for perception, acceptance, and adoption of technology (Morris *et al.*, 2005, Rahayu, 2015, and Abdulaziz (2017). Whilst some of the previous studies stated that IT innovations result to high level of discomfort amongst older ages (Turner *et al.*, 2007).

**Table 31**Age \* Involvement in E-Marketing Implementation Cross-tabulation

|                       |                    |  | Involvement in E-Marketing Implementation |        | Total  |
|-----------------------|--------------------|--|---|--------|--------|
|                       |                    |  | No  | Yes    |        |
| Age of the respondent | Under 30 years     | Count  | 2   | 13     | 15     |
|                       |                    | % Within involvement in E-Marketing implementation | 9.1%                                      | 6.2%   | 6.5%   |
|                       |                    | % Of Total   | 0.9%                                      | 5.6%   | 6.5%   |
|                       | 30-40 years        | Count  | 13  | 122    | 135    |
|                       |                    | % Within involvement in E-Marketing implementation | 59.1%                                     | 58.4%  | 58.4%  |
|                       |                    | % Of Total   | 5.6%                                      | 52.8%  | 58.4%  |
|                       | 41-50 years        | Count  | 5   | 63     | 68     |
|                       |                    | % Within involvement in E-Marketing implementation | 22.7%                                     | 30.1%  | 29.4%  |
|                       |                    | % Of Total   | 2.2%                                      | 27.3%  | 29.4%  |
|                       | 51-60 years        | Count  | 1   | 9      | 10     |
|                       |                    | % Within involvement in E-Marketing implementation | 4.5%                                      | 4.3%   | 4.3%   |
|                       |                    | % Of Total   | 0.4%                                      | 3.9%   | 4.3%   |
|                       | More than 60 years | Count  | 1   | 2      | 3      |
|                       |                    | % Within involvement in E-Marketing implementation | 4.5%                                      | 1.0%   | 1.3%   |
|                       |                    | % Of Total   | 0.4%                                      | 0.9%   | 1.3%   |
| Total                 |                    | Count  | 22  | 209    | 231    |
|                       |                    | % Within involvement in E-Marketing implementation | 100.0%                                    | 100.0% | 100.0% |
|                       |                    | % Of Total   | 9.5%                                      | 90.5%  | 100.0% |

**Table 8.19:** Chi-Square test results for the Association between age and involvement in E-Marketing implementation

|                    | Value              | df | Asymptotic Significance (2-sided) |
|--------------------|--------------------|----|-----------------------------------|
| Pearson Chi-Square | 2.603 <sup>a</sup> | 4  | .626                              |
| Likelihood Ratio   | 1.916              | 4  | .751                              |
| N of Valid Cases   | 231                |    |                                   |



**Figure 8.17:** Cross-tabulation of age and involvement in E-Marketing implementation

### 8.3.2.3 Level of Education of the Research Participant

Table 8.20 illustrates the distribution of research respondents by level of education. As can be seen in table, the majority of the respondents accounted for 45.9% of all research respondents had undergraduate degree (106 respondents) followed by 44.2% of the respondents had postgraduate degree (102 respondents) and finally 10.0% of the respondents were with doctoral degree (23 respondents). Notably there is no respondent with college certificates which shows that all the research participants were educated and knowledgeable respondents. This increases the reliability of the research.

**Table 8.20:** Distribution of the Respondents by Level of Education

|       |                       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------------------|-----------|---------|---------------|--------------------|
| Valid | Undergraduate studies | 106       | 45.9    | 45.9          | 45.9               |
|       | Postgraduate studies  | 102       | 44.2    | 44.2          | 90.0               |
|       | Doctoral Degree       | 23        | 10.0    | 10.0          | 100.0              |
|       | Total                 | 231       | 100.0   | 100.0         |                    |

The relationship between the level of education and the adoption of new technology been investigated by previous researchers such as Gregor and Vrazalic (2006) and Riddell and Song (2017) found significant relationship between the level of education and the involvement in adoption of new technology. According to Wozniak (2015), firms with more educational employees are more likely to adopt new technology and involve in implementation of new technology rather than less educated employees. Even though level of education does not influence the deployment of the technology but how to use and the adaptability behaviour toward the new technology during the implementation process have impact on the firm. This result suggested that graduates led distribution firms in Iran.

To examine the presence of a relationship between the education level and respondents' involvement in E-Marketing implementation, a cross tabulation test was conducted between the level of education and the participant involvement in E-Marketing implementation. As can be seen in table 8.21, the majority of the respondents that involved in E-Marketing implementation were with postgraduate degree (45.9% of the total number of respondents involved in E-Marketing implementation) which were 96 participants. Followed by participants with undergraduate degree (43.1%) and the lowest percentage were among the respondents with doctoral degree (11.0%). It is also noticed that the highest percentage of non-involvement were among participants with undergraduate degree (72.7 % of the total number of participants that were not involved in E-Marketing implementation).

**Table 8.21:** Level of Education \* Involvement in E-Marketing Implementation Cross tabulation

|                    |                       |  | Involvement in E- Marketing Implementation |        | Total  |
|--------------------|-----------------------|--|--|--------|--------|
|                    |                       |  | No   | Yes    |        |
| Level of Education | Undergraduate studies | Count  | 16   | 90     | 106    |
|                    |                       | % Within involvement in E-Marketing implementation | 72.7%                                      | 43.1%  | 45.9%  |
|                    |                       | % Of Total   | 6.9%                                       | 39.0%  | 45.9%  |
|                    | Postgraduate studies  | Count  | 6  | 96     | 102    |
|                    |                       | % Within involvement in E-Marketing implementation | 27.3%                                      | 45.9%  | 44.2%  |
|                    |                       | % Of Total   | 2.6%                                       | 41.6%  | 44.2%  |
|                    | Doctoral Degree       | Count  | 0  | 23     | 23     |
|                    |                       | % Within involvement in E-Marketing implementation | 0.0%                                       | 11.0%  | 10.0%  |
|                    |                       | % Of Total   | 0.0%                                       | 10.0%  | 10.0%  |
| Total              |                       | Count  | 22   | 209    | 231    |
|                    |                       | % Within involvement in E-Marketing implementation | 100.0%                                     | 100.0% | 100.0% |
|                    |                       | % Of Total   | 9.5%                                       | 90.5%  | 100.0% |

To approve this statement, a Chi-Square test was conducted to ensure that there is significant relationship between the research participants' level of education and their involvement in E-Marketing implementation in distribution firms. The results of Chi-Square are demonstrating in table 8.22. As can be seen from the table, chi-square ( $\chi^2$ ) value was 7.808<sup>a</sup> with  $p = .020$ , the result show that there is a significant statistical association between the research participants' level of education and their involvement in E-Marketing implementation in distribution firms. Finding is consistent with findings from Gregor and Vrazalic (2006), Rahayu (2015), Chen and Dhillon (2003), and riddell (2017) state that the more companies employ educational staff, the less they will require for training when developing new software programs or increasing the level of new technology. Moreover, learning IT and complex technologies for individuals with lack of education would be more difficult. For example, Riddell (2017) found that the higher the education level of employees, the faster IT technology implemented within the firm.

**Table 8.22:** Chi-Square test results for the Association between Level of Education \* Involvement in E-Marketing implementation

|                    | Value              | df | Asymptotic Significance (2-sided) |
|--------------------|--------------------|----|-----------------------------------|
| Pearson Chi-Square | 7.808 <sup>a</sup> | 2  | .020                              |
| Likelihood Ratio   | 9.696              | 2  | .008                              |
| N of Valid Cases   | 231                |    |                                   |

### 8.3.2.4 Years of Working within the Distribution Firm

Table 8.23 presents the distribution of participants by year of working with the distribution firm. As can be seen in the table, majority of the respondents (46.3%) worked more than 10 years within their distribution firm (107 participants), followed by 29.4% of the research participants worked under 5 years for their distribution firm (68 respondents) and finally 24.2% of the research participants worked within their distribution firm for 6-10 years (56 respondents).

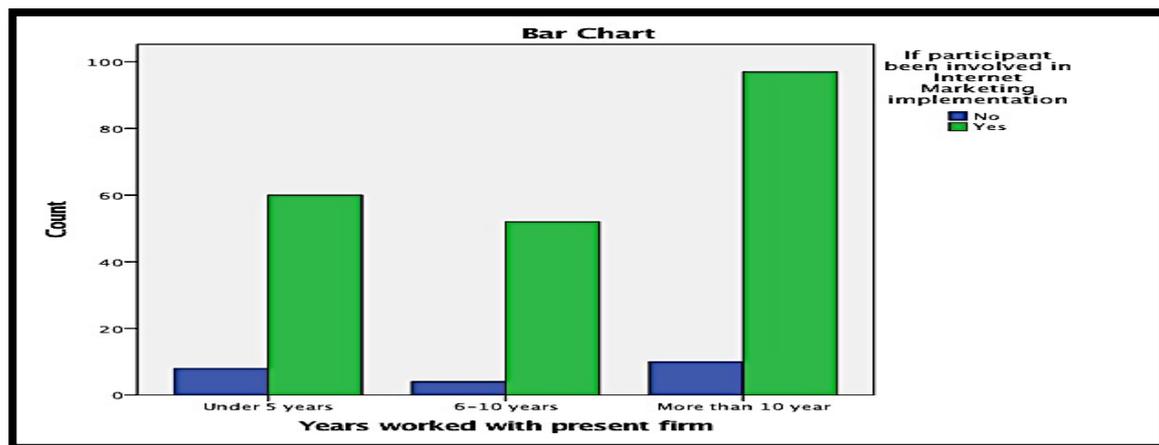
**Table 32:** Distribution of the Research Participants by Years of Working within the Distribution Firm

|       |                    | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------|-----------|---------|---------------|--------------------|
| Valid | Under 5 years      | 68        | 29.4    | 29.4          | 29.4               |
|       | 6-10 years         | 56        | 24.2    | 24.2          | 53.7               |
|       | More than 10 years | 107       | 46.3    | 46.3          | 100.0              |
|       | Total              | 231       | 100.0   | 100.0         |                    |

On the other hand, Table 8.24 illustrates a cross tabulation for years of working of respondents within their distribution firm and their involvement in E-Marketing implementation. As can be seen from the table as well as Figure 8.18, the highest percentage of respondents that involved in implementation of E-Marketing are among respondents that worked within their distribution firm for more than 10 years (46.4%) followed by 28.7% for the respondents that worked within their distribution firms under 5 years and the smallest percentage of involvement in E-Marketing implementation were among the respondents that worked for the distribution firm for 6-10 (24.9%). Moreover, most of the involvement in E-Marketing implementation was among the respondents that worked for the distribution firm for more than 5 years (71.3%). This reveals that experienced respondents are more likely to adopt and implement E-Marketing and that goes in line with the findings of Sexton, Johnson and Hignite (2002) and Raheem (2015) studies.

**Table 8.24:** Working within the firm \* Involvement in E-Marketing Implementation Cross-tabulation

|  |       | Years worked in Current Position                   | Under 5 years | 6-10 years | More than 10 years | Total  |
|--|-------|--|---------------|------------|--------------------|--------|
| If participant been involved in E-Marketing implementation | No    | Count  | 8             | 4          | 10                 | 22     |
|  |       | % Within involvement in E-Marketing implementation | 36.4%         | 18.2%      | 45.5%              | 100.0% |
|  |       | % Within Years worked in current position          | 11.8%         | 7.1%       | 9.3%               | 9.5%   |
|  |       | % Of Total   | 3.5%          | 1.7%       | 4.3%               | 9.5%   |
|  | Yes   | Count  | 60            | 52         | 97                 | 209    |
|  |       | % Within involvement in E-Marketing implementation | 28.7%         | 24.9%      | 46.4%              | 100.0% |
|  |       | % Within Years worked in current position          | 88.2%         | 92.9%      | 90.7%              | 90.5%  |
|  |       | % Of Total   | 26.0%         | 22.5%      | 42.0%              | 90.5%  |
|  | Total | Count  | 68            | 56         | 107                | 231    |
|  |       | % Within involvement in E-Marketing implementation | 29.4%         | 24.2%      | 46.3%              | 100.0% |
|  |       | % Within Years worked in current position          | 100.0%        | 100.0%     | 100.0%             | 100.0% |
|  |       | % Of Total   | 29.4%         | 24.2%      | 46.3%              | 100.0% |



**Figure 8.18:** Distribution of the participants by years of working within the distribution firm with their involvement in E-Marketing implementation

### 8.3.2.5 Involvement of Research Participant with E-Marketing Implementation within Distribution Firm

The main objective of this study is to investigate the influencing factors of E-Marketing adoption among Distribution Firms and the impact of the factors on Marketing performance of these distribution firms. Hence the involvement and experience of respondents in E-Marketing implementation is essential. In this regard and as demonstrated in Table 8.25, the majority of the research participants (90.5%) had contribution in E-Marketing implementation (209

respondents). Likewise, a minority of the research participants (9.5%) did not involve in E-Marketing implementation within the organisation (22 respondents).

**Table 33** Distribution of the Research Participants by Involvement in E-Marketing Implementation

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | No    | 22        | 9.5     | 9.5           | 9.5                |
|       | Yes   | 209       | 90.5    | 90.5          | 100.0              |
|       | Total | 231       | 100.0   | 100.0         |                    |

On the other hand, to examine the percentage of respondents (non-involvement), a cross-tabulation for the position of the respondents and their involvement in E-Marketing implementation was conducted in regard of the percentage of non-involvement of research respondents.

Based on the results of cross-tabulation and as can be seen in Table 8.26, the percentage of the non-involvement research participants in E-Marketing implementation is small percentage (9.5%) which is an acceptable percentage according to the previous finding of El-Gohary (2009) who accepted the 14.9% of non-involvement participants in implementation in his research or Eid (2011) that accepted a result of 22% of non-involvement in E-Marketing implementation in his research. According to a cross tabulation in table the majority of respondents who had not been involved in E-Marketing implementation in the organisation (6 out of 22) were for both managers and Marketing managers of the distribution firms with the percentage of 27.3% of the total for each followed by 13.6% for both research participants with the position of chairman and sale manager. Notably, all the IT managers were involved in E-Marketing implementation within distribution firms.

**Table 8.26:** Cross tabulation for Job and Involvement in E-Marketing Implementation

|           |                        |  | Involvement in E-Marketing implementation |        | Total  |
|-----------|------------------------|--|---|--------|--------|
|           |                        |  | No  | Yes    |        |
| Filled By | CEO/Owner              | Count  | 1   | 25     | 26     |
|           |                        | % Within involvement in E-Marketing implementation | 4.5%                                      | 12.0%  | 11.3%  |
|           |                        | % Of Total   | 0.4%                                      | 10.8%  | 11.3%  |
|           | Manger                 | Count  | 6   | 59     | 65     |
|           |                        | % Within involvement in E-Marketing implementation | 27.3%                                     | 28.2%  | 28.1%  |
|           |                        | % Of Total   | 15.6%                                     | 12.6%  | 28.1%  |
|           | Chairman               | Count  | 3   | 13     | 16     |
|           |                        | % Within involvement in E-Marketing implementation | 13.6%                                     | 6.2%   | 6.9%   |
|           |                        | % Of Total   | 1.3%                                      | 5.6%   | 6.9%   |
|           | IT Manager             | Count  | 0   | 39     | 39     |
|           |                        | % Within involvement in E-Marketing implementation | 0   | 39     | 39     |
|           |                        | % Of Total   | 0.0%                                      | 18.7%  | 16.9%  |
|           | Marketing Manager      | Count  | 6   | 34     | 40     |
|           |                        | % Within involvement in E-Marketing implementation | 27.3%                                     | 16.3%  | 17.3%  |
|           |                        | % Of Total   | 2.6%                                      | 14.7%  | 17.3%  |
|           | Human Resource Manager | Count  | 2   | 6      | 8      |
|           |                        | % Within involvement in E-Marketing implementation | 9.1%                                      | 2.9%   | 3.5%   |
|           |                        | % Of Total   | 0.9%                                      | 2.6%   | 3.5%   |
|           | Financial Manager      | Count  | 1   | 13     | 14     |
|           |                        | % Within involvement in E-Marketing implementation | 4.5%                                      | 6.2%   | 6.1%   |
|           |                        | % Of Total   | 2.6%                                      | 3.5%   | 6.1%   |
|           | Sale Manager           | Count  | 3   | 20     | 23     |
|           |                        | % Within involvement in E-Marketing implementation | 13.6%                                     | 9.6%   | 10.0%  |
|           |                        | % Of Total   | 1.3%                                      | 8.7%   | 10.0%  |
| Total     |                        | Count  | 22  | 209    | 231    |
|           |                        | % Within involvement in E-Marketing implementation | 100.0%                                    | 100.0% | 100.0% |
|           |                        | % of Total   | 9.5%                                      | 90.5%  | 100.0% |

The results indicate the following assumptions:

- Although, IT managers have the necessary technical skills to be the part of E-Marketing implementation, other top managers such as sale manager, financial manager, or human resource manager need to have the necessary technical skills for implementation of E-Marketing within the distribution firms. This cut the extra costs for trainings and also delegate the responsibility of implementing from IT manager to all top managers within

the distribution firms.

- If the number of managers, owners and chairman who involved in E-Marketing implementation are minimum, they might generate the idea of employing the specialist and external IT Experts within the distribution firms.

Therefore, based on the research findings and due to the high percentage of the involvement of the respondents in E-Marketing implementation of distribution firms, it can be concluded that the research participants in this study can validate the research findings and provide precious information about the impact of E-Marketing on marketing performance of the distribution firms.

Consequently, Table 8.27 demonstrates that, 160 out of 209 respondents that involved in implementation were implemented within the same organisation (accounted for 69.3%) followed by 21.2% involved in adoption in other organisations. Correspondingly, as can be seen in Table 8.28, (54 out of 209 Participated respondents in E-Marketing implementation) were engaged as system analyst (23.4%), followed by 20.3% as system manager, 18.6% were involved as programmer, 15.6% were participated as web designer, and finally 12.6% were involved in implementation as system administrator. This indicates that majority of research participants are experienced in IT and various technology related tools. Therefore, the study met the requirement regarding to the involvement of research respondents in E-Marketing implementation. Hence, the questionnaires filled by the respondents were reliable in this research.

**Table 8.27:** Distribution of Research Respondents According to Where Involved in Implementation of E-Marketing

|       |                             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------------------------|-----------|---------|---------------|--------------------|
| Valid | In this organisation        | 160       | 69.3    | 69.3          | 69.3               |
|       | In another organisation     | 49        | 21.2    | 21.2          | 90.5               |
|       | Not involved in E-Marketing | 22        | 9.5     | 9.5           | 100.0              |
|       | Total                       | 231       | 100.0   | 100.0         |                    |

**Table 8.28:** Distribution of Research Respondents According to Type of Involvement

|       |                      | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------------------|-----------|---------|---------------|--------------------|
| Valid | System Administrator | 29        | 12.6    | 12.6          | 12.6               |
|       | System Analyst       | 54        | 23.4    | 23.4          | 35.9               |
|       | Programmer           | 43        | 18.6    | 18.6          | 54.5               |
|       | System Manager       | 47        | 20.3    | 20.3          | 74.9               |
|       | Web Designer         | 36        | 15.6    | 15.6          | 90.5               |
|       | Not Involved         | 22        | 9.5     | 9.5           | 100.0              |
|       | Total                | 231       | 100.0   | 100.0         |                    |

### 8.3.3 Performance Measure Profile

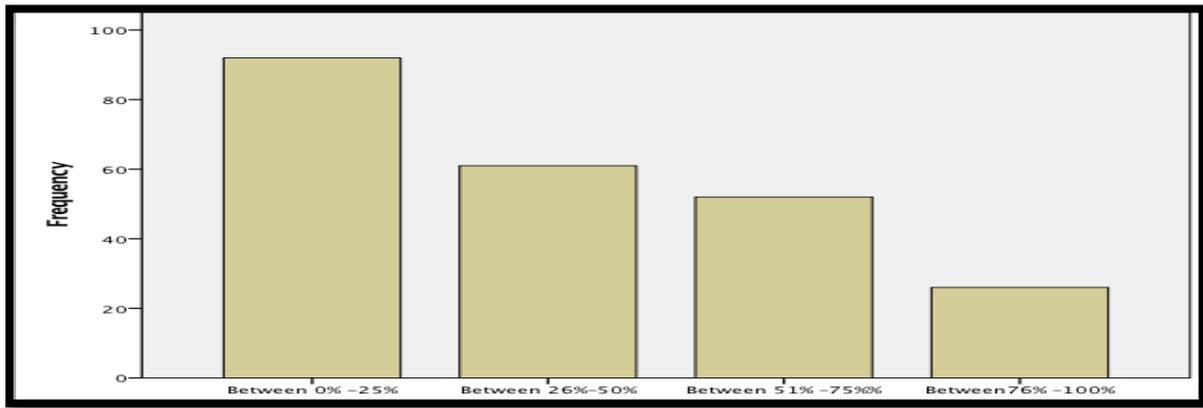
This study is measuring the marketing performance of the distribution firms to increase the reliability of research samples. The research discusses that the higher the performance of the distribution firms, the more the organisations involve in implementation of E-Marketing. In this regard, the research measured implementation of E-Marketing of distribution firms within this research in three parts including profitability growth, average sales growth, and online market growth.

#### 8.3.3.1 Distribution Firms' Average Profitability Growth

Table 8.29 presents the distribution of research samples according to profitability growth. As can be seen from the table majority of the research samples (92 research samples) had profits of 0% to 25% since involved in E-Marketing implementation which accounted 39.8% out of the total research distribution firms, followed by distribution firms that were having 26% to 50% profits which accounted 26.4% (61 distribution firms), 51% to 75% profits accounted 22.5% (52 distribution firms), and finally 76% to 100% profits accounted 11.3% (26 distribution firms). Overall, 153 distribution firms in this study had less than 50% profit since involved in E-Marketing implementation (refer to Figure 8.19).

**Table 8.29:** Distribution of Research Samples According to Profitability Growth.

|       |                  | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------------|-----------|---------|---------------|--------------------|
| Valid | Between 0%– 25 % | 92        | 39.8    | 26.4          | 66.2               |
|       | Between 26%–50%  | 61        | 26.4    | 21.2          | 86.1               |
|       | Between 51%–75%  | 52        | 22.5    | 22.5          | 88.7               |
|       | Between 76%–100% | 26        | 11.3    | 11.3          | 100.0              |
|       | Total            | 231       | 100.0   | 100.0         |                    |



**Figure 8.19:** Distribution of Research Samples According to Profitability Growth

### 8.3.3.2 Distribution Firms' Average Sales Growth

In previous studies, different methods been adopted for evaluation of sales growth. For example, measuring the sales growth is calculated by subtracting the sales of the current period from the sales of the previous period divided by the sales from the previous year multiplied by 100. Sales growth usually uses capacity more fully which causes fixed cost to be increased over more revenue resulting to a greater profitability (Sam *et al.*, 2013). Hence this research selected sales growth as a performance measure for the participated distribution firms due the ability of sales growth measure to identify their performance

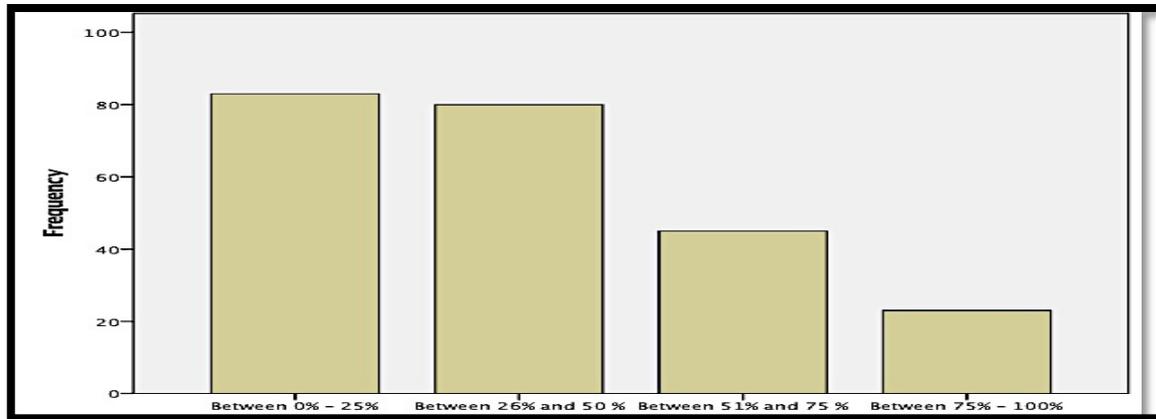
Table 8.30 illustrates that the majority of distribution firms were having sales growth between 0% to 25% since involved in E-Marketing implementation which accounted 35.9% (83 distribution firms) of total research distribution firms, followed by distribution firms that were having sales growth between 26% to 50% which accounted 34.6% (80 distribution firms), 51% to 75% of sales growth by 19.5% (45 distribution firms) and finally 76% to 100% of sales growth by 10.0% (23 distribution firms).

**Table 8.30:** Distribution of Research Samples According to Average Sales Growth

|       |                      | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|----------------------|-----------|---------|---------------|--------------------|
| Valid | Between 0% - 25%     | 83        | 35.9    | 35.9          | 35.9               |
|       | Between 26% and 50 % | 80        | 34.6    | 34.6          | 70.6               |
|       | Between 51% and 75 % | 45        | 19.5    | 19.5          | 90.0               |
|       | Between 76% - 100%   | 23        | 10.0    | 10.0          | 100.0              |
|       | Total                | 231       | 100.0   | 100.0         |                    |

Figure 8.20 presents that some of the distribution firms have sales growth between 76% to 100%, since involved in E-Marketing adoption. Yet the figure shows that majority of the research distribution firms reached average sales growth up to 50%. However, generally all the

research distribution firms achieved a positive sales growth as a consequent of E-Marketing implementation.



**Figure 8.20:** Distribution of Research Samples According to Average Sales Growth

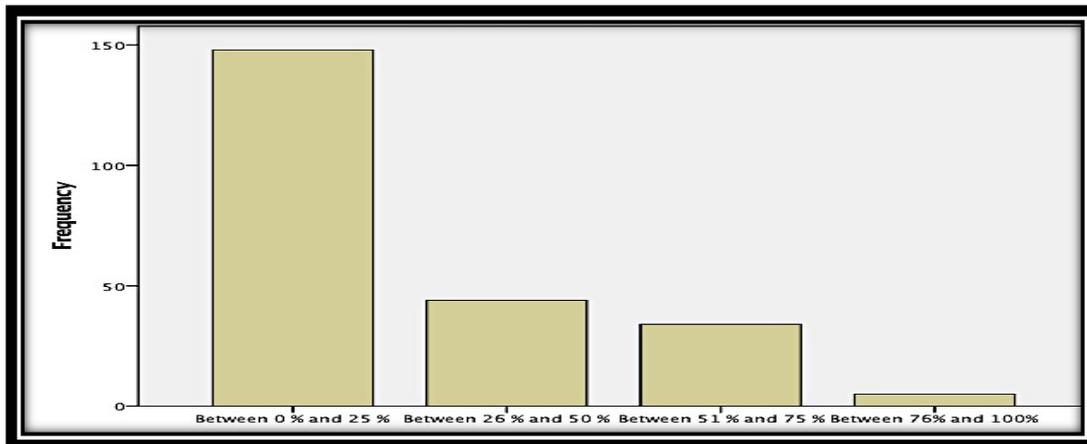
### 8.3.3.3 Distribution Firms' Average Market Growth

This research selected Market growth (which is increase in the size of the market) as a measure of marketing performance. The selection of this measure was due to ease of calculation of market growth which is the difference between the market size of the first year from the size of the market in second year, dividing the result by the size of the market for the first year multiplied by 100 (Adkins,2017).

Table 8.31 illustrates the average market growth of the distribution firms. The table presents that most of the distribution research samples were having market growth between 0% to 25% which accounted 64.1% (148 distribution firms), followed by distribution firms that having average market growth between 26% to 50% accounted 19.0% (44 distribution firms). Distribution firms that having market growth between 56% to 75% accounted 14.7% (34 distribution firms). There are only 5 distribution firms that have market growth between 76% to 100% accounted only 2.2%. The results portray the high reliability of the research samples, as all the research distribution firms were having positive market growth since involved in E-Marketing implementation.

**Table 8.31:** Distribution of Research Samples According to Market Growth since Implemented E-Marketing

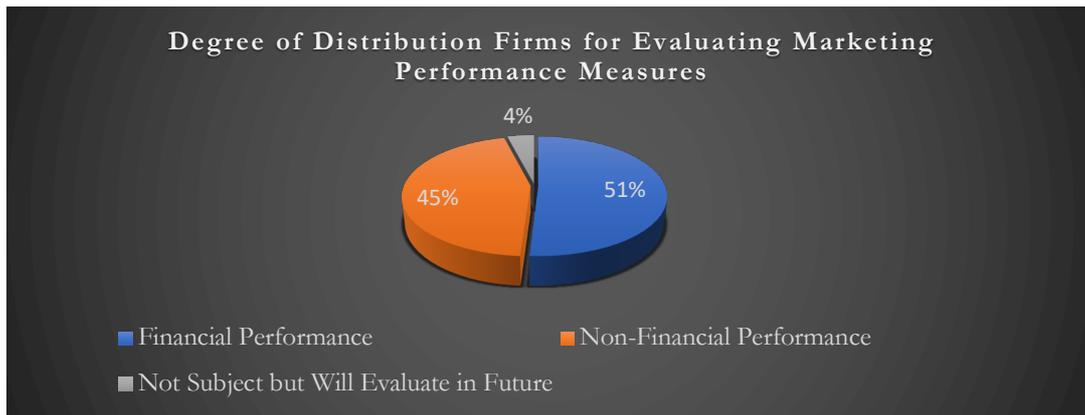
|       |                       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-----------------------|-----------|---------|---------------|--------------------|
| Valid | Between 0 % and 25 %  | 148       | 64.1    | 64.1          | 64.1               |
|       | Between 26 % and 50 % | 44        | 19.0    | 19.0          | 83.1               |
|       | Between 51 % and 75 % | 34        | 14.7    | 14.7          | 97.8               |
|       | Between 76% and 100%  | 5         | 2.2     | 2.2           | 100.0              |
|       | Total                 | 231       | 100.0   | 100.0         |                    |



**Figure 8.21:** Distribution of Research Samples According to Market Growth

### 8.3.3.4 Distribution Firms' Evaluation Marketing of Performance Measures

Figure 8.22 presents the degree of distribution firms for evaluating marketing performance measures. As can be seen in Figure, 51% of the distribution firms found the financial performance measures adequate to evaluate the impact of E-Marketing implementation. 45% of the distribution firms found the non-financial performance measures adequate to evaluate the impact of E-Marketing implementation, and finally 4% of the distribution firms did not subject on E-Marketing Performance measures evaluate on their E-Marketing performance, but they are going to do in the near future. This shows the importance of marketing performance measures for distribution firms in Iran since companies are prone to decrease marketing budgets throughout economic slumps, economising, and mergers. Therefore, evaluating the current marketing performance, help firm for their future marketing initiatives and lead the firm achieve its goals.



**Figure 8.22:** Degree of Distribution Firms for Evaluating Marketing Performance Measures

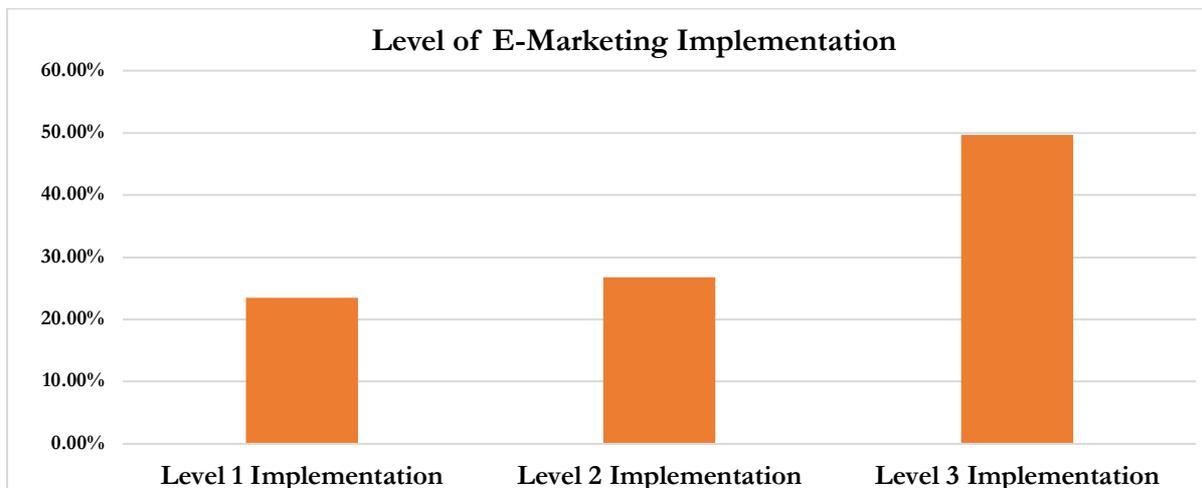
### 8.3.4 E-Marketing Profile

#### 8.3.4.1 Level of E-Marketing Implemented by the Distribution Firms

This research is aimed to attain information from the distribution firms that have already integrated E-Marketing within their Marketing strategies. Therefore, it is important to measure the level of E-Marketing implemented in distribution firms to confirm the eligibility of the organisations that participated within this study. In that regard, this study has deployed the measures such as level of E-Marketing, and tools of E-Marketing to investigate the E-Marketing profile of the distribution firms (as discussed in Chapter six).

Distribution firms within this research were classified according to level of E-Marketing implemented by distribution firms. As reviewed earlier briefly in chapter seven, classification of level of E-Marketing is into four different levels. Three levels used to illustrate the level of e-mail marketing, intranet marketing, social media marketing, mobile marketing, and search engine marketing implementation within distribution firms. These three levels are: level two implementation: Internet Presence (the distribution firms uses: of E-mail Marketing, intranet marketing, Social Media Marketing, Mobile Marketing, and search engine marketing in conducting 25% or less of its marketing activities), level three implementation: prospecting (the distribution firms uses: of E-mail Marketing, intranet marketing, Social Media Marketing, Mobile Marketing, and search engine marketing in conducting more than 25% and less then 75% of its marketing activities) and level four: business integration (the distribution firms uses of E-mail Marketing, intranet marketing, Social Media Marketing, Mobile Marketing, and search engine marketing in conducting more than 75% of its marketing activities).

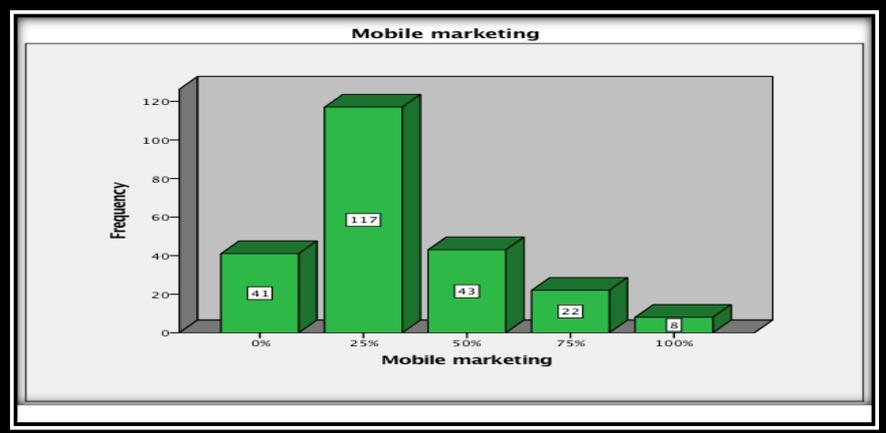
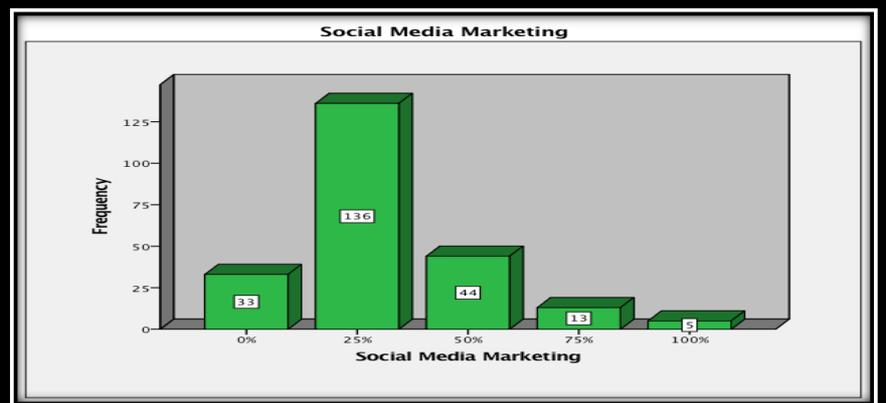
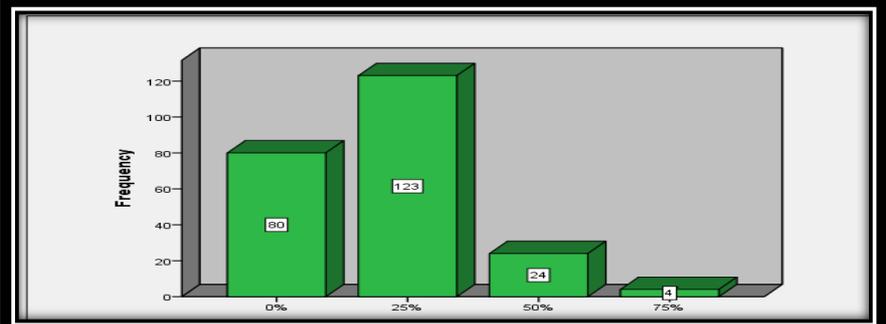
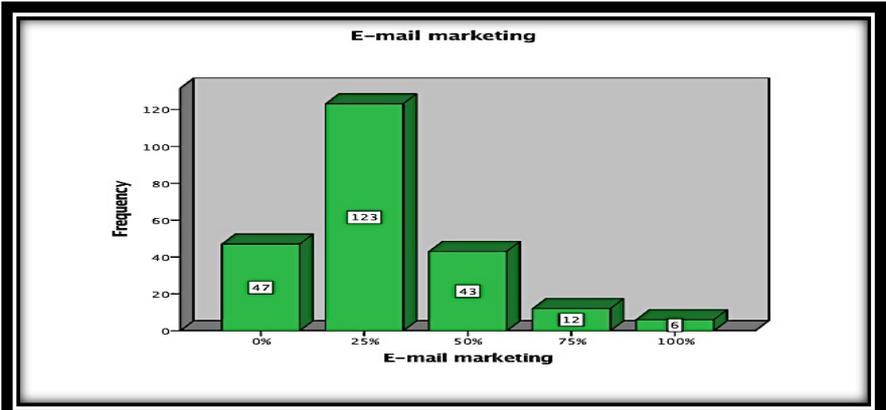
In this research, it assumed that all distribution firms already implemented E-Marketing within their organisations and already have their online platform. With regard to the level of E-Marketing implementation, as can be seen in Figure 8.23 majority of research distribution firms (49.7%) of the research distribution firms implemented E-Marketing to conduct more than 75% of its marketing activities, followed by (26.8%) of the research distribution firms implemented E-Marketing to conduct more than 25% and less than 75% of its marketing activities, and finally (23.5%) of the research participants implemented E-Marketing to conduct 25% or less of distribution firms marketing activities.

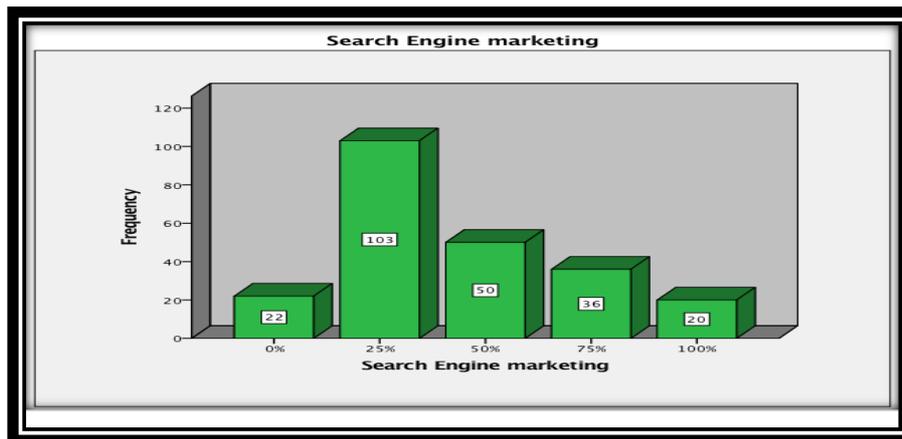


**Figure 8.23:** Level of E-Marketing by Research Distribution Firms

#### 8.3.4.2 E-Marketing Tools Used by the Distribution Firms

Distribution firms within this research were using five different E-Marketing tools to conduct their E-Marketing activities including: E-mail Marketing, Intranet Marketing, Search Engine Marketing, Social Media Marketing, and Mobile Marketing. Figure 8.24 presents the distribution of these five E-Marketing tools among research participants.





**Figure 8.24:** Distribution of the Research Participants' use of E-Marketing Tools

Regarding E-mail Marketing utilisation as an E-Marketing tool, majority of research participants (53.2%) use E-mail Marketing as an E-Marketing tool to conduct 25% of marketing activities of distribution firm (123 distribution firms), it has also noticed that (20.3%) of distribution firms do not use E-mail Marketing as an E-Marketing tool to conduct their marketing activities (47 distribution firms). The rest of research respondents used this tools it in different capacities,(18.6%) of the research participants use E-mail Marketing as an E-Marketing tool to conduct 50% of marketing activities of distribution firm (43 distribution firms), ,(5.2%) of the research participants use E-mail Marketing as an E-Marketing tool to conduct 75% of marketing activities of distribution firm (12 distribution firms) , and finally (2.6%) of the research participants use E-mail Marketing as an E-Marketing tool to conduct 100% of marketing activities of distribution firm(6 distribution firms).

With reference to Intranet Marketing usage as an E-Marketing tool, majority of the research distribution firms (53.2%) used Intranet Marketing as an E-Marketing tool to conduct 25% of the distribution firm marketing activities (123 distribution firms) followed by (10.4%) used Intranet Marketing as an E-Marketing tool to conduct 50% Intranet Marketing as an E-Marketing tool to conduct 75% of the distribution firm marketing activities (4 distribution firms), and finally 34.6% (80 distribution firms) did not use Intranet Marketing at all to conduct the distribution firm marketing activities.it has also noted that there is no single distribution firms that used Intranet Marketing an E-Marketing tool to conduct 100% of the distribution firm marketing activities.

With regard to the usage of Social Media Marketing as an E-Marketing tool, it was found that majority of research participants (58.9%) used Social Media Marketing as an E-Marketing tool to conduct 25% of their marketing activities (136 distribution firms), followed by 19.0% (44

distribution firms) used Social Media Marketing as an E-Marketing tool to conduct 50% of their marketing activities, 5.6% of research participants (13 distribution firms) used Social Media Marketing as an E-Marketing tool to conduct 75% of the distribution firm marketing activities, and 2.2% of distribution firms (8 organisations) used Social Media Marketing as an E-Marketing tool to conduct 100% of the distribution firm marketing activities. It has noticed that 14.3% of respondents (33 distribution firms) did not use Social Media Marketing as an E-Marketing tool to conduct their marketing activities.

With reference to Mobile Marketing usage as an E-Marketing tool, the majority of the research distribution firms (50.6%) used Mobile Marketing as an E-Marketing tool to conduct 25% of the distribution firm marketing activities (117 distribution firms) followed by (18.6%) used Mobile Marketing as an E-Marketing tool to conduct 50% of the distribution firm marketing activities (43 distribution firms), (9.5%) used Mobile Marketing as an E-Marketing tool to conduct 75% of the distribution firm marketing activities (22 distribution firms) and finally, 3.5% of distribution firms (8 distribution firms) used Mobile Marketing as an E-Marketing tool to conduct 100% of the distribution firm marketing activities. It noted that 17.7% (41 distribution firms) did not use Mobile Marketing to conduct distribution firm marketing activities.

Finally with regard to Search Engine Marketing usage as an E-Marketing tool, the majority of the research distribution firms (44.6%) used Search Engine Marketing as an E-Marketing tool to conduct 25% of the distribution firm marketing activities (103 distribution firms) followed by (21.6%) used Search Engine Marketing as an E-Marketing tool to conduct 50% of the distribution firm marketing activities (50 distribution firms), (15.6%) used Search Engine Marketing as an E-Marketing tool to conduct 75% of the distribution firm marketing activities (36 distribution firms), and finally, 8.7% of distribution firms (20 distribution firms) used Search Engine Marketing as an E-Marketing tool to conduct 100% of the distribution firm marketing activities. It noted that 9.5% (22 distribution firms) did not use Search Engine Marketing to conduct distribution firm marketing activities.

#### **8.3.4.3 Years Involved in E-Marketing Implementation**

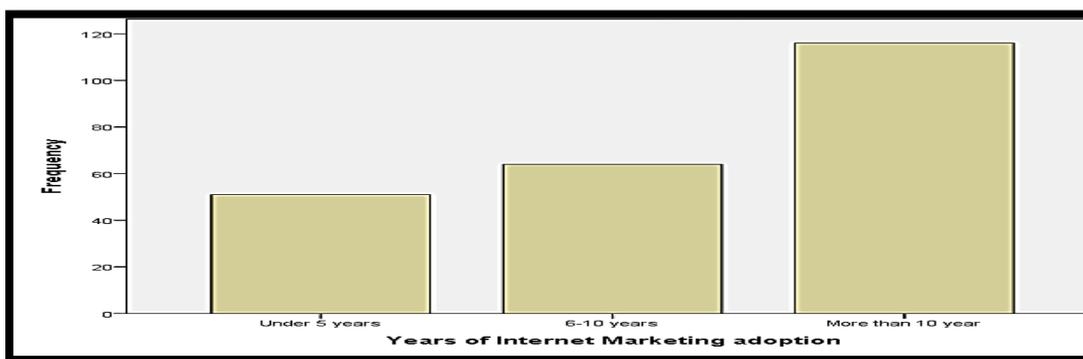
Identifying the years, the distribution firms involved in implementation of E-Marketing is one of the methods for measuring the level of E-Marketing Implementation. This research argues that the greater the experience on E-Marketing implementation, the more reliable information

will be achieved. For example, the information in regard of the impact of E-Marketing implementation will be more significant if the distribution firms have more experience on implementation of E-Marketing more than 5 years. Table 8.32 and Figure 8.25 present the distribution of the years the distribution firms involved in adoption of E-Marketing. As can be seen, majority or half of the research distribution firms 50.2% were involved in adoption of E-Marketing for more than 10 years (116 distribution firms) followed by 27.7% of the research firms were involved in adoption of E-Marketing (64 distribution firms), and finally 22.1% of the research firms were involved in adoption of E-Marketing (51 distribution firms).

In general, the results portray that majority of the research participants were involve in E-Marketing implementation for more than 5 years which accounted for 77.9% (180 Distribution Firms) of the total research firms (refer to Table 8.32 and Figure 8.25). Thus, the information provided by the distribution firms is still reliable and usable in this study to meet the research aims.

**Table 8.32:** Distribution of Years involved in E-Marketing Implementation

|       |                    | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------|-----------|---------|---------------|--------------------|
| Valid | Under 5 years      | 51        | 22.1    | 22.1          | 22.1               |
|       | 6-10 years         | 64        | 27.7    | 27.7          | 49.8               |
|       | More than 10 years | 116       | 50.2    | 50.2          | 100.0              |
|       | Total              | 231       | 100.0   | 100.0         |                    |



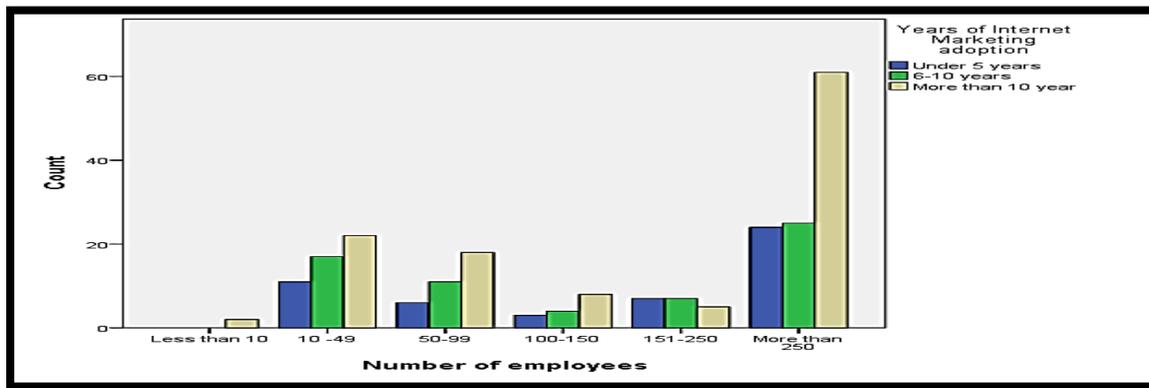
**Figure 8.25:** Distribution of Years Involved in E-Marketing Implementation

On the other hand, Table 8.33 and Figure 8.26 present the distribution of the number of employees and years of the firms been involved in E-Marketing adoption. Most of the distribution firms (66 Distribution Firms) that involved in adoption for more than 10 years, are the distribution firms with number of employees for more than 250. Only 24 Micro-Small firms involved in E-Marketing adoption for more than 10 years, and 26 medium distribution firms

involved in adoption for more than 10 years. The result reveals that large companies, are more capable of being involved in adoption and able to upgrade their marketing strategies into higher level of adoption since, larger firms gain access to more resources and skills linked to E-Marketing (Rahayu and Day, 2015).

**Table 8.33:** Number of Employees \* Years of E-Marketing Adoption Cross-Tabulation

|                     |               | Years of E-Marketing adoption |            |                    | Total |
|---------------------|---------------|-------------------------------|------------|--------------------|-------|
|                     |               | Under 5 years                 | 6-10 years | More than 10 years |       |
| Number of employees | Less than 10  | 0                             | 0          | 2                  | 2     |
|                     | 10 -49        | 11                            | 17         | 22                 | 50    |
|                     | 50-99         | 6                             | 11         | 18                 | 35    |
|                     | 100-150       | 3                             | 4          | 8                  | 15    |
|                     | 151-250       | 7                             | 7          | 5                  | 19    |
|                     | More than 250 | 24                            | 25         | 61                 | 110   |
| Total               |               | 51                            | 64         | 116                | 231   |



**Figure 8.26:** Number of Employees \* Years of E-Marketing Adoption Cross-Tabulation

#### 8.3.4.4 Frequency of Technology Consultants' Involvement within Distribution Firm

The frequency of technology consultants' involvement within distribution firm is one of the measures used to identify the E-Marketing Profile of distribution firms. This research was investigating on which ways the external IT experts could influence the distribution firms. Involvement of IT experts within the firms is beneficial for the firms for avoiding pitfalls and technical malfunctions that could hinder the organisation's growth (Bell, 2012). External IT consultants are beneficial for businesses from addressing the regulatory necessities to the system assimilation and implementation, upgrading, or solving technical issues on software. This helps firms to navigate and get through infrastructural changes effectively, and with less problems than be dependent on own internal expertise allows for major savings both short and long term (Dadian, 2014).

Technology consultants can support the firms by various techniques such as customising internet-based software, doing monthly upgrades, installing software packages to ease the business operations, attend for technical issues, and checking if the software packages work optimally. As can be seen in Table 8.34, (2.2 percent) of total respondents (5 Distribution Firms) are not getting support from external IT consultants for the organisation. Consequently, majority of respondents of 109 distribution firms (accounted for 47.2% of total research participants) are getting support from IT consultants for only one object within the firm, 47 distribution firms (accounted for 20.3% of total research respondents) are getting support from IT consultants for 4 objects within the firm, 36 distribution firms (accounted for 15.6% of total research participants) are getting support from IT consultants for two objects within the firm, and finally 34 distribution firms (accounted for 14.7% of total respondents) are getting support from IT consultants for three objects within the firm. Overall, 97.8% of the research participants are using IT consultants for various matters within the firm which this portrays the importance of E-Marketing phenomena for distribution firms. This also increase the reliability of the research findings and allow the researcher for generalisation of the results.

**Table 8.34:** Frequency of Technology Consultants' Involvement within Distribution Firm

|       |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--|-----------|---------|---------------|--------------------|
| Valid | Get Support for 1 item                       | 109       | 47.2    | 47.2          | 47.2               |
|       | Get Support for 2 items                      | 36        | 15.6    | 15.6          | 62.8               |
|       | Get Support for 3 items                      | 34        | 14.7    | 14.7          | 77.5               |
|       | Get Support for 4 items                      | 47        | 20.3    | 20.3          | 97.8               |
|       | Not using IT consultants in the organisation | 5         | 2.2     | 2.2           | 100.0              |
|       | Total  | 231       | 100.0   | 100.0         |                    |

#### 8.3.4.5 Frequency of IT Specialists Employed within Distribution Firm

Frequency of IT specialists within distribution firms is one of the other measures used to identify the E-Marketing Profile of distribution firm. Employing specialist in IT is a high priority for firms as utilisation of high skills and experienced staffs result a high turnover in profit and sale stated by (Scholarios, 2015). IT experts that firms positioned within organisation include system manager, web designer, system analyst and programmer. As can be seen in Table 8.35, (40.7 Percent) of total research participants (94 Distribution Firms) used only one IT specialist, followed by 21.2% of total research participants (49 Distribution Firms) employed 4 different IT specialists in firm, 17.3% of total respondents (40 Distribution Firms) employed 2 different types of IT specialists in firm, and finally 11.3% of total research participants (26 Distribution Firms) employed 3 different types of IT specialists in firm.

However, 22 of distribution firms (accounted for 9.5% of total research participants) do not need for employment of IT specialist within firm. Results indicate that most research participants (90.5% of total respondents) employ IT specialists within distribution firm. This reduces the cost and time for the staff training, and thus the owner could devote this saved time to other facets of the business that contribute to greater profitability (Scholarios, 2015).

The results show that the study samples were dynamically involved in online marketing activities and in constant changes of their online strategies to be more competitive in a fast-changing environment. Remarkably, most of the participants if getting support from external IT consultants, are employing the IT specialists. This is beneficial for firms due to the dependability and steadiness; they can bring to firms. IT specialists are always accessible and are skilled in specific profession especially when there is a need for an immediate business decision.

**Table 8.35:** Frequency of Information Technology Specialist Employed within Distribution Firms

|       |                                | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------------------|-----------|---------|---------------|--------------------|
| Valid | Employs 1 Type IT Specialist   | 94        | 40.7    | 40.7          | 40.7               |
|       | Employs 2 Type IT Specialist   | 40        | 17.3    | 17.3          | 58.0               |
|       | Employs 3 Type IT Specialist   | 26        | 11.3    | 11.3          | 69.3               |
|       | Employs 4 Type IT Specialist   | 49        | 21.2    | 21.2          | 90.5               |
|       | We do not Employ IT Specialist | 22        | 9.5     | 9.5           | 100.0              |
|       | Total                          | 231       | 100.0   | 100.0         |                    |

#### 8.3.4.6 Company's Website Profile and Frequency of E-Marketing Initiatives

Depends on the content strategy, firms have three types of websites: static, dynamic, and interactive website. Firms need to have a steady mix of static, dynamic and interactive content. As can be seen in Table 8.36 majority of distribution firms have interactive website (53.2% of research distribution firms), followed by 40.3% of distribution firms (93 research firms) have dynamic website, and finally the minority of research firms (15 distribution firms) accounted for 6.5% of total research participants have static website. As can be seen from the result, 206 distribution firms (accounted for 93.5 Percent) have interactive and dynamic websites that constantly updating and upgrading the content to the latest innovation technology. Types of firm's webpage depends on the targeted audiences and firm's needs, can be combination of all

three types of contents. This makes the firm more well-know and allows the firm to be more competitive (Seanxmin, 2014). The result confirms that the research samples of the study are actively involved in developing their webpages and are experienced, having enough knowledge and skills in creation of interactive- dynamic contents. Hence, this increases the reliability of the results in this study.

**Table 8.36:** Frequency of Distribution Firms' Types of Website

|       |             | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------------|-----------|---------|---------------|--------------------|
| Valid | Static      | 15        | 6.5     | 6.5           | 6.5                |
|       | Interactive | 123       | 53.2    | 53.2          | 59.7               |
|       | Dynamic     | 93        | 40.3    | 40.3          | 100.0              |
|       | Total       | 231       | 100.0   | 100.0         |                    |

## 8.4 Chapter Summery

This chapter presents descriptive data analyses collected from survey questionnaire of 231 respondents toward achieving the preliminary research findings and identify validity and reliability of study samples. This chapter investigated the general descriptive analyses of the research participants and the research firms in distribution sector to provide a comprehensive profile about these distribution firms and the research samples as well as the distribution of their response. This chapter also presents the analysis of descriptive data on the level of E-Marketing implementation of distribution firms in this research and marketing performance measures by these distribution firms. The analysis of descriptive data was conducted by using various descriptive statistics tools including graphs, frequency analysis, cross-tabulation and chi-square to define and distribute research samples according to the characteristics of respondents and distribution firms.

For gaining more illustration and interpretation of the descriptive results, the characteristics and factors were categorised and classified into three key groups namely: distribution firms profile (which comprised of the characteristics related to the Iranian distribution firms), Profile of research respondents (which comprised of the characteristics related to the individual respondents within Iranian distribution firms) and E-Marketing profile (which comprised of the E-Marketing level of implementation and tools used by Iranian distribution firms). Based on the analysis of the distribution firms, the study found the research distribution firms are firms with all sizes and are between the new adopted firms and gradually implemented companies. Furthermore, majority of the research firms in this study were registered under

public joint stock. such companies can increase to huge number of resources from the public by issuing the shares and as there is no limit on number of shareholders, the shareholders can be increased to meet the financial requirement (Reddy, 2017). Also, a consistent distribution of the firms by their location was found where indicated that the differences between the research samples and the research population according to their location in cities is significantly very small. Distribution of the participated firms in this research are more likely to be the representative for the research population. Moreover, this research found a consistent distribution of research firms by its sector, where covered all types of distribution firms in Iran. These research findings are important as allows the researcher for the generalisation of the research findings.

With reference to the number of employees, it was found that most distribution firms (110 distribution firms with a percentage of 47.6% of the total number of firms) fall into the category of firms that has employees more than 250. Furthermore, 62.3% of the total number of distribution firms had 100 employees or more. Meanwhile, the majority of distribution firms within the study (45.9%) had between 1.000.000(£) - 19.999(£) of annual sales (106 Distribution Firms) and the majority of study distribution firms (38.1%) have a marketing budget that is less than 10 % of total firm budget (88 Distribution Firms) and most of the research distribution firms (75.3 %) were in business for more than 20 years (174 Distribution Firms). With reference to capital, it was found that 24.2% were in the category between 1.000,000 (£)-19.999,000 (£) as capital (56 Distribution Firms). On the other hand, it was found that most of the research distribution firms (63.6 %) was distributing all over the countries to all cities in Iran (147 Distribution Firms).

With reference to the research respondents, it was found that the majority of the research participants were the distribution firms' managers themselves (28.1% of the total), aged between 30-40 years (58.4 % of the total), worked within their organisation more than 10 years (46.3% of the total), contributed and were involved in E-Marketing implementation within their organisation (90.5% of the total) and are university graduates (45.9% of the total) the majority of the respondents (46.3%) worked more than 10 years within the same distribution firm (107 participants).

With reference to E-Marketing tools used by the study distribution firms it was found that the majority of Iranian distribution firms had used Social Media Marketing and Search Engine

Marketing as tools of E-Marketing while 53.2% of the research distribution firms have Interactive website. Furthermore, all the study distribution firms implemented E-Marketing and the majority of the survey distribution firms implemented E-Marketing to conduct more than 75% of its marketing activities and the majority of research distribution firms or half of the research distribution firms were involved in adoption of E-Marketing for more than 10 years (116 Distribution firms). Moreover, only 2.2% of total respondents (5 Distribution Firms) are not getting support from external IT consultants for the organisation, and 22 Distribution Firms do not need for employment of IT specialists within firm. The result indicates that research distribution firms were actively involved in E-Marketing implementation.

Finally, with regard to performance measure profile, this research found most of the research distribution firms were having 0% to 25% of their profitability growth (39.8% out of the total research Distribution Firms), sales growth (35.9% out of the total research Distribution Firms), and Market growth (64.1% out of the total research Distribution Firms) since being involved in E-Marketing implementation and majority of research Firms (51% of total Distribution Firms) found the financial performance measures adequate to evaluate the impact of E-Marketing implementation. All in all, this research found the results were in consistent with the research criteria of distribution firms that were involved in E-Marketing implementation as found in previous studies. Hence, the 231 research samples in this study are reliable and will be used in the inferential data analyses for testing the research hypotheses.

## **Chapter 9: Quantitative Study Phase 2: Inferential Data Analysis, Reliability and Hypotheses Testing**

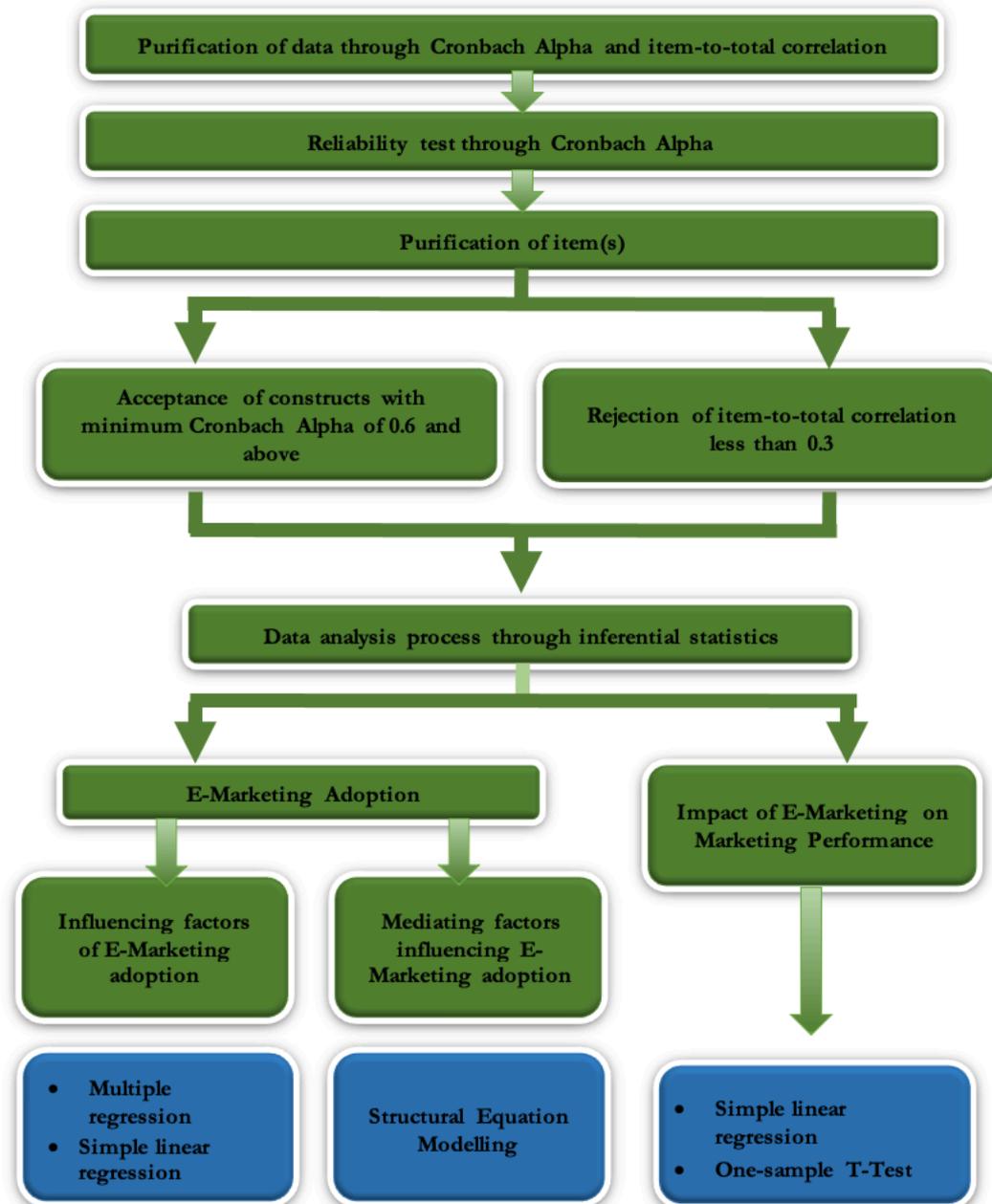
### **9.1 Introduction**

In previous chapter (chapter eight), the descriptive results were described and justified. The aim of descriptive analysis was to test the survey questionnaire's level of reliability and to judge the appropriateness of the findings in accordance with the research aims and objectives. Thus, this chapter discusses the results of inferential data analysis from survey questionnaires of 231 research participants. For hypotheses testing the researcher used the statistical package for social sciences (SPSS version 24) to process the data analysis.

The research conducted the inferential data analysis in two stages: In the first stage, a preliminary data analysis for testing the validity and reliability conducted, in which all multidimensional research concepts were examined prior to hypotheses testing. In the second stage, the research conducted various tests such as multiple regression, simple linear regression, one sample T-test and structural equation modeling, to answer the research questions, and to meet the aim and objectives of the study. Subsequently, the study discussed and interpreted the research findings of the hypothesis afterward in chapter ten.

The process of hypotheses testing in this study divided into two stages. As presented in table 9.1, the first stage includes the analysis of the potential factors that impact on adoption of E-Marketing among Iranian distribution firms and the second stage includes the impact of E-Marketing adoption on Marketing performance of Iranian distribution firms. The first stage of hypotheses testing is related to the first and second research questions on investigating the factors influencing the adoption of E-Marketing among Iranian distribution firms and the mediating factors that impact on adoption of E-Marketing. To answer the first research question, five statistical analysis models were developed to test the impact of factors related to environmental, individual, organisational and technological on E-Marketing adoption by Iranian distribution firms. These factors were tested inversely in each model by using multiple regression and simple linear regression tests accordingly. To answer the second research question, model 5 was developed to examine the role of external related factors in mediating the relationship between internal related factors and E-Marketing adoption. For analysing model 5, Structural Equation Modelling was used. Accordingly, to answer the fourth research

question, which is related to impact of E-Marketing adoption on current and future marketing performance of Iranian distribution firms, the second stage of inferential analysis required. In this research two types of performance measures were investigated which comprised financial and non-financial performance. For testing the hypothesis in this stage, simple linear regression and one sample T-test were implemented. Figure 9.1 illustrates the flow of inferential analysis processes.



**Figure 9.1:** Inferential Data Analysis Process  
**Source:** The Process is adopted from El-Gohary (2009)

Table 9.1 portrays the factors measuring each construct involved in this research. The measures are based on the results of exploratory phase of this study (Chapter Six) and the synthesis of the literature review.

**Table 9.1:** The Measures Investigated in the Inferential Data Analysis Process

| Stage  | Factors(Constructs)   |
|--|---|
| E-Marketing adoption stage   | <p><b><u>Environmental Factors:</u></b></p> <ul style="list-style-type: none"> <li>• The Business Partner Affiliation</li> <li>• External IT support</li> <li>• Intensity of National E-Readiness</li> </ul>  |
|  | <p><b><u>Individual Factors:</u></b></p> <ul style="list-style-type: none"> <li>• Normative social influences</li> <li>• Owner/Manager support (involvement)</li> <li>• Perceived ease of use</li> <li>• Job fit with PC use</li> <li>• Long-term consequences of PC use</li> </ul>   |
|  | <p><b><u>Organisational Factors:</u></b></p> <ul style="list-style-type: none"> <li>• Organisation’s culture</li> <li>• Organisation’s e-readiness (firm’s financial resources, firm’s IT infrastructure, human infrastructure)</li> <li>• Receptivity (attitude) toward change</li> <li>• Marketing capabilities of the organisation</li> <li>• The degree of decentralisation</li> <li>• Degree of formalisation</li> <li>• Employees’ IT knowledge</li> <li>• Management IT knowledge</li> </ul> |
|  | <p><b><u>Technological Factors:</u></b></p> <ul style="list-style-type: none"> <li>• Physical infrastructure and Sufficient accessibility to internet resources</li> <li>• Cost effects</li> <li>• Perceived benefits</li> <li>• Compatibility</li> <li>• Relative advantage</li> </ul>   |
| Impacts of E-Marketing adoption on Distribution Firms’ Marketing Performance | <p><b><u>Financial measures:</u></b></p> <ul style="list-style-type: none"> <li>• Profitability Growth</li> <li>• Sales Growth</li> </ul>   |
|  | <p><b><u>Non-financial measures:</u></b></p> <ul style="list-style-type: none"> <li>• Efficiency performance</li> <li>• Knowledge performance</li> <li>• Operational Performance</li> <li>• Realisation of company’s goals performance</li> </ul>   |

Source: The Researcher

## 9.2 The Results of Validity and Reliability Analyses

### 9.2.1 Validity Test

The quantitative method requires the assessment of the measurement concepts for their validity and reliability, since the collected data need an in-depth evaluation for depiction of any potential insufficiency, and for decreasing the possible errors, so that the researcher be assured

of measurement accuracy. The data from the research respondents might be reliable, however if the study does not measure what was proposed to do, low validity would be revealed and the research results would be worthless (Bryman, 2008, P.230). To avoid such issue, measures or one measure designed to evaluate all concepts within the study. This is defined as reliability that refers to an extent in which the measuring tool precisely measures what it is supposed to measure. Hence, prior to inferential analysis, there is a necessity to first; confirm the content validity of the research in various ways, such as measuring the questionnaire by a panel of academic or professional individuals to determine whether the questionnaire survey, measures what it should measure (Vogt, 2007, DeVellis, 2003, and Netemeyer *et al.*, 2003), and second; to conduct reliability test through Cronbach alpha for the purification of all research items.

There is an evidence that mixed methods achieve to the greater validity of the measures and confirm the credibility of the research findings (Pansiri, 2005, and Pansiri, 2006). The point of this research is to investigate the factors influencing the adoption of E-Marketing and the impact on marketing performance of the Iranian distribution firms. An extensive review of literature was conducted, and 21 factors were found as the most important variables that influence the adoption of E-Marketing. Prior to checking the validity of the survey questionnaire, it is essential for an international research to translate the questionnaire in an appropriate method to be sure, it reflects the same meaning as the original questionnaire has. Validating the main survey questionnaire is not a guarantee that the translated form be valid except translation validity processes be followed (Saunders *et al.*, 2016, and Usunier, 1998). In this study, the questionnaire translated from English to Persian (Farsi) and the two sources of questionnaires were compared by specialists and academics of both English and Persian native speakers. Three items were found to have different meanings in the translated questionnaire. The three items were re-phrased in developing the final questionnaire.

For examining the validity of the survey questionnaire, four academics in UK (for the questionnaire in English) and four academics in Iran (for the questionnaire that been translated in Farsi) who were experts in the research area, critically checked the measures and the survey questionnaire to confirm the validity of the items and measurements, to find out whether the instrument has effectively covered all the subjects that it should, and to be sure it is understandable for research participants in regard of the variables and constructs. As a result, the measures and items were modified and re-defined as the feedback were received in regard

of the appropriateness of the items in explaining the research constructs. For example, there were modifications on the items that were explaining the E-Marketing tools measures, where initially the items were adopted from the measures that explain different implementation methods in each E-Marketing tool such as search engine marketing. The aim was to make the measures more understandable for research participants who are not familiar with some of the professional words. Consequently, the study has added brief definition for each E-Marketing tool prior to the measurements, so the respondents be fully familiar with any specific word or each E-Marketing tool and modified few of the items as they were having the same meaning when translate into Persian.

After a validity test carried out, it is necessary that the data be subject to a reliability test (Hair *et al.*, 2009; and Field, 2009, P. 11) which is a statistical measure of how reproducible the data within the survey questionnaire (Litwin, 1995) through Cronbach alpha are. This method which is proposed by Cronbach (1951) (who suggested the Cronbach alpha test) divides the data and calculates the correlation coefficient for all concepts, to check the internal consistency that in fact, measures the similarity of a scale produced of multiple items. Hence, the questionnaire piloted by 33 managers/owner and top managers of distribution firms located in Tehran to evaluate the reliability. This number is considered as an acceptable number for piloting questionnaires (Saunders *et al.*, 2009). For this study, the researcher traveled to Tehran and handed-in the translated questionnaires in-person to 33 managers/owner and top managers for piloting purpose. The questionnaires were distributed using the probability- simple random sampling.

In reliability of measures, the respondents expected to measure all the constructs and variables almost with the same responses in each of survey questionnaire. For measuring the constructs of the study, corrected item-total correlations were used to check the internal consistency of the measures, and how good do the items or questions measuring a specific variable within the survey (Pallant, 2016, and Hair *et al.*, 2014). The study then, employed a reliability test to precisely check the internal consistency among all the items and measurements of the research constructs throughout Cronbach Alpha and item-to-total correlation by using statistical software package (version 24) of SPSS (refer to table 9.2).

The value of Cronbach alpha ranges from 0 (in which measures are totally inconsistent) to 1 (in which items perfectly correlate). A high value presents a good internal consistency among

the items in the scale (George *et al.*, 2003). Various researchers approve that a value of 0.5 or below signifies an unacceptable scale, whereas some have stated that a value of 0.6 is an acceptable value (Liu, 2000, Leblanc, 1992, and Heung, 2000), whilst some researchers stated that the acceptable value is the Cronbach alpha above 0.7 (Hair *et al.*, 2014, Hair *et al.*, 2009, Field, 2009, Vogt, 2007, Netemeyer *et al.*, 2003, and Field, 2016, P. 712). Hair *et al.* (2014) recommends that 0.7 coefficient as good internal reliability, however, Pallant (2016) argues a value of 0.6 coefficient is a good internal reliability. Also, four levels of reliability are proposed by Hinton *et al.* (2004), from low which is (0.50 and below), high moderate (0.50-0.70), high (0.70-0.90), and lastly; excellent (0.90 and above). Hence this study accepts value of 0.7 and above as an acceptable value.

The study found that value of Cronbach alpha for all measures of this study were above the general acceptable value of 0.7, (refer to table 9.2) which ranges from 0.701 to 0.928. These values highlight the reliability of the concepts in the questionnaire form. Corrected item-to-total correlations are attained from reliability statistics. The values within the correlations reveal, how one item is correlated with the other items in a multiple set of items. The item-to-total value is used to define, which set of items need to be kept within the scale and which will achieve to construct validity. Various researchers state that the correlation above 0.30 (Field, 2009) is an acceptable value, some other researchers stated that this value should be between 0.50 and 0.80. The rule adopted in this research to achieve construct validity is that item (*i*) above 0.30 is the acceptable value and any item below 0.20 will be excluded from the research (Netemeyer *et al.*, 2003). The study found the item-to-total correlation value of each item was at an acceptable level and ranged from 0.303 to 0.887. As the item-to-total correlations calculated along with the reliability statistics, Table 9.2 presents the reliability statistics, Cronbach's alpha, and the corrected item-total correlations. The results demonstrate the reliability of the data, the consistency of the scale indicators, and homogeneity of the items.

**Table 9.2:** Reliability Test for the Research Variables and Concepts

| Item Code                              | Item                                     | Item-to-total correlation first analysis | Cronbach's Alpha first analysis | Item-to-total correlation second analysis | Cronbach's Alpha second analysis |
|--|--|--|---------------------------------|---|----------------------------------|
| <b><u>A. Environmental Factors</u></b> |  |  |                                 |   |                                  |
| <b>A1</b>                              | <b>The Business Partner Affiliation</b>  |  | <b>.764</b>                     |   | <b>.764</b>                      |
| A11                                    | <i>Item 1</i>                            | .469                                     |                                 | .469                                      |                                  |
| A12                                    | <i>Item 2</i>                            | .445                                     |                                 | .445                                      |                                  |
| A13                                    | <i>Item 3</i>                            | .594                                     |                                 | .594                                      |                                  |
| A14                                    | <i>Item 4</i>                            | .530                                     |                                 | .530                                      |                                  |
| A15                                    | <i>Item 5</i>                            | .492                                     |                                 | .492                                      |                                  |
| A16                                    | <i>Item 6</i>                            | .508                                     |                                 | .508                                      |                                  |
| <b>A2</b>                              | <b>Intensity of National E-Readiness</b> |  | <b>.861</b>                     |   | <b>.861</b>                      |
| A21                                    | <i>Item 1</i>                            | .739                                     |                                 | .739                                      |                                  |
| A22                                    | <i>Item 2</i>                            | .643                                     |                                 | .643                                      |                                  |
| A23                                    | <i>Item 3</i>                            | .704                                     |                                 | .704                                      |                                  |
| A24                                    | <i>Item 4</i>                            | .556                                     |                                 | .556                                      |                                  |
| <b>A3</b>                              | <b>External IT Support</b>               |  | <b>.802</b>                     |   | <b>.802</b>                      |
| A31                                    | <i>Item 1</i>                            | .362                                     |                                 | .362                                      |                                  |
| A32                                    | <i>Item 2</i>                            | .502                                     |                                 | .502                                      |                                  |
| A33                                    | <i>Item 3</i>                            | .682                                     |                                 | .682                                      |                                  |
| A34                                    | <i>Item 4</i>                            | .755                                     |                                 | .755                                      |                                  |
| A35                                    | <i>Item 5</i>                            | .690                                     |                                 | .690                                      |                                  |
| <b><u>B: Individual Factors</u></b>    |  |  |                                 |   |                                  |
| <b>B1</b>                              | <b>Normative Social Influences</b>       |  | <b>.859</b>                     |   | <b>.859</b>                      |
| B1                                     | <i>Item 1</i>                            | .499                                     |                                 | .499                                      |                                  |
| B11                                    | <i>Item 2</i>                            | .429                                     |                                 | .429                                      |                                  |
| B12                                    | <i>Item 3</i>                            | .589                                     |                                 | .589                                      |                                  |
| B13                                    | <i>Item 4</i>                            | .629                                     |                                 | .629                                      |                                  |
| B14                                    | <i>Item 5</i>                            | .663                                     |                                 | .663                                      |                                  |
| B15                                    | <i>Item 6</i>                            | .699                                     |                                 | .699                                      |                                  |
| B16                                    | <i>Item 7</i>                            | .612                                     |                                 | .612                                      |                                  |
| B17                                    | <i>Item 8</i>                            | .581                                     |                                 | .581                                      |                                  |
| B18                                    | <i>Item 9</i>                            | .598                                     |                                 | .598                                      |                                  |
| B19                                    | <i>Item 10</i>                           | .425                                     |                                 | .425                                      |                                  |
| <b>B2</b>                              | <b>Owner/Manager Support</b>             |  | <b>.844</b>                     |   | <b>.844</b>                      |
| B21                                    | <i>Item 1</i>                            | .614                                     |                                 | .614                                      |                                  |
| B22                                    | <i>Item 2</i>                            | .603                                     |                                 | .603                                      |                                  |
| B23                                    | <i>Item 3</i>                            | .632                                     |                                 | .632                                      |                                  |
| B24                                    | <i>Item 4</i>                            | .686                                     |                                 | .686                                      |                                  |
| B25                                    | <i>Item 5</i>                            | .606                                     |                                 | .606                                      |                                  |
| B26                                    | <i>Item 6</i>                            | .603                                     |                                 | .603                                      |                                  |
| <b>B3</b>                              | <b>Perceived Ease of Use</b>             |  | <b>.800</b>                     |   | <b>.800</b>                      |
| B31                                    | <i>Item 1</i>                            | .632                                     |                                 | .632                                      |                                  |
| B32                                    | <i>Item 2</i>                            | .313                                     |                                 | .313                                      |                                  |
| B33                                    | <i>Item 3</i>                            | .626                                     |                                 | .626                                      |                                  |
| B34                                    | <i>Item 4</i>                            | .509                                     |                                 | .509                                      |                                  |
| B35                                    | <i>Item 5</i>                            | .514                                     |                                 | .514                                      |                                  |
| B36                                    | <i>Item 6</i>                            | .438                                     |                                 | .438                                      |                                  |
| B37                                    | <i>Item 7</i>                            | .628                                     |                                 | .628                                      |                                  |
| B38                                    | <i>Item 8</i>                            | .623                                     |                                 | .623                                      |                                  |
| B39                                    | <i>Item 9</i>                            | .551                                     |                                 | .551                                      |                                  |
| B40                                    | <i>Item 10</i>                           | .603                                     |                                 | .603                                      |                                  |
| <b>B4</b>                              | <b>Job fit with PC Use</b>               |  | <b>.831</b>                     |   | <b>.831</b>                      |
| B41                                    | <i>Item 1</i>                            | .504                                     |                                 | .504                                      |                                  |

|   |   |      |             |      |             |
|---|---|------|-------------|------|-------------|
| B42   | Item 2  | .433 |             | .433 |             |
| B43   | Item 3  | .799 |             | .799 |             |
| B44   | Item 4  | .587 |             | .587 |             |
| B45   | Item 5  | .805 |             | .805 |             |
| B46   | Item 6  | .556 |             | .556 |             |
| B47   | Item 7  | .622 |             | .622 |             |
| B48   | Item 8  | .663 |             | .663 |             |
| B49   | Item 9  | .845 |             | .845 |             |
| B50   | Item 10                                       | .496 |             | .496 |             |
| B51   | Item 11                                       | .571 |             | .571 |             |
| <b>B5</b>                                     | <b>Long-term Consequences of PC use</b>       |      | <b>.815</b> |      | <b>.815</b> |
| B51   | Item 1  | .551 |             | .551 |             |
| B52   | Item 2  | .711 |             | .711 |             |
| B53   | Item 3  | .626 |             | .626 |             |
| B54   | Item 4  | .804 |             | .804 |             |
| B55   | Item 5  | .586 |             | .586 |             |
| B56   | Item 6  | .549 |             | .549 |             |
| <b><u>C: Organisation Related Factors</u></b> |   |      |             |      |             |
| <b>C1</b>                                     | <b>Organisation's Culture</b>                 |      | <b>.717</b> |      | <b>.717</b> |
| C11   | Item 1  | .766 |             | .766 |             |
| C12   | Item 2  | .643 |             | .643 |             |
| C13   | Item 3  | .519 |             | .519 |             |
| C14   | Item 4  | .465 |             | .465 |             |
| C15   | Item 5  | .500 |             | .500 |             |
| <b>C2</b>                                     | <b>Organisation's E-readiness</b>             |      | <b>.796</b> |      | <b>.796</b> |
| C21   | Item 1  | .422 |             | .422 |             |
| C22   | Item 2  | .481 |             | .481 |             |
| C23   | Item 3  | .763 |             | .763 |             |
| C24   | Item 4  | .688 |             | .688 |             |
| C25   | Item 5  | .664 |             | .664 |             |
| C26   | Item 6  | .667 |             | .667 |             |
| C27   | Item 7  | .792 |             | .792 |             |
| C28   | Item 8  | .545 |             | .545 |             |
| C29   | Item 9  | .643 |             | .643 |             |
| C30   | Item 10                                       | .697 |             | .697 |             |
| C31   | Item 11                                       | .745 |             | .745 |             |
| <b>C3</b>                                     | <b>Receptivity Toward Change</b>              |      | <b>.710</b> |      | <b>.710</b> |
| C31   | Item 1  | .607 |             | .607 |             |
| C32   | Item 2  | .617 |             | .617 |             |
| C33   | Item 3  | .675 |             | .675 |             |
| C34   | Item 4  | .545 |             | .545 |             |
| C35   | Item 5  | .517 |             | .517 |             |
| <b>C4</b>                                     | <b>Marketing Capabilities of Organisation</b> |      | <b>.928</b> |      | <b>.928</b> |
| C41   | Item 1  | .813 |             | .813 |             |
| C42   | Item 2  | .802 |             | .802 |             |
| C43   | Item 3  | .810 |             | .810 |             |
| C44   | Item 4  | .826 |             | .826 |             |
| <b>C5</b>                                     | <b>The Degree of Decentralisation</b>         |      | <b>.818</b> |      | <b>.818</b> |
| C51   | Item 1  | .594 |             | .594 |             |
| C52   | Item 2  | .868 |             | .868 |             |
| C53   | Item 3  | .780 |             | .780 |             |
| C54   | Item 4  | .691 |             | .691 |             |
| C55   | Item 5  | .505 |             | .505 |             |
| <b>C6</b>                                     | <b>The Intensity of Regulations</b>           |      | <b>.751</b> |      | <b>.751</b> |
| C61   | Item 1  | .684 |             | .684 |             |
| C62   | Item 2  | .537 |             | .537 |             |
| C63   | Item 3  | .585 |             | .585 |             |
| C64   | Item 4  | .647 |             | .647 |             |

|  |  |      |             |      |             |
|--|--|------|-------------|------|-------------|
| C65  | <i>Item 5</i>  | .505 |             | .505 |             |
| <b>C7</b>                                      | <b>Employees' IT Knowledge</b>   |      | <b>.701</b> |      | <b>.701</b> |
| C71  | <i>Item 1</i>  | .644 |             | .644 |             |
| C72  | <i>Item 2</i>  | .704 |             | .704 |             |
| C73  | <i>Item 3</i>  | .616 |             | .616 |             |
| C74  | <i>Item 4</i>  | .610 |             | .610 |             |
| C75  | <i>Item 5</i>  | .711 |             | .711 |             |
| C76  | <i>Item 6</i>  | .733 |             | .733 |             |
| <b>C8</b>                                      | <b>Management IT Knowledge</b>   |      | <b>.827</b> |      | <b>.827</b> |
| C81  | <i>Item 1</i>  | .887 |             | .887 |             |
| C82  | <i>Item 2</i>  | .731 |             | .731 |             |
| C83  | <i>Item 3</i>  | .690 |             | .690 |             |
| C84  | <i>Item 4</i>  | .614 |             | .614 |             |
| <b><u>D: Technological Related Factors</u></b> |  |      |             |      |             |
| <b>D1</b>                                      | <b>Physical Infrastructures and Sufficient Accessibility to Internet Resources</b> |      | <b>.888</b> |      | <b>.888</b> |
| D11  | <i>Item 1</i>  | .716 |             | .716 |             |
| D12  | <i>Item 2</i>  | .680 |             | .680 |             |
| D13  | <i>Item 3</i>  | .697 |             | .697 |             |
| D14  | <i>Item 4</i>  | .720 |             | .720 |             |
| D15  | <i>Item 5</i>  | .778 |             | .778 |             |
| D16  | <i>Item 6</i>  | .662 |             | .662 |             |
| D17  | <i>Item 7</i>  | .508 |             | .508 |             |
| D18  | <i>Item 8</i>  | .772 |             | .772 |             |
| <b>D2</b>                                      | <b>Intensity of cost effects</b>   |      | <b>.903</b> |      | <b>.903</b> |
| D21  | <i>Item 1</i>  | .830 |             | .830 |             |
| D22  | <i>Item 2</i>  | .748 |             | .748 |             |
| D23  | <i>Item 3</i>  | .835 |             | .835 |             |
| D24  | <i>Item 4</i>  | .836 |             | .836 |             |
| <b>D3</b>                                      | <b>Perceived Benefits</b>  |      | <b>.812</b> |      | <b>.812</b> |
| D31  | <i>Item 1</i>  | .509 |             | .509 |             |
| D32  | <i>Item 2</i>  | .614 |             | .614 |             |
| D33  | <i>Item 3</i>  | .627 |             | .627 |             |
| D34  | <i>Item 4</i>  | .670 |             | .670 |             |
| D35  | <i>Item 5</i>  | .794 |             | .794 |             |
| D36  | <i>Item 6</i>  | .633 |             | .633 |             |
| <b>D4</b>                                      | <b>The Intensity of Perceived Compatibility</b>                                    |      | <b>.720</b> |      | <b>.720</b> |
| D41  | <i>Item 1</i>  | .649 |             | .649 |             |
| D42  | <i>Item 2</i>  | .695 |             | .695 |             |
| D43  | <i>Item 3</i>  | .622 |             | .622 |             |
| D44  | <i>Item 4</i>  | .574 |             | .574 |             |
| <b>D5</b>                                      | <b>The Relative Advantage</b>  |      | <b>.873</b> |      | <b>.873</b> |
| D51  | <i>Item 1</i>  | .644 |             | .644 |             |
| D52  | <i>Item 2</i>  | .751 |             | .751 |             |
| D53  | <i>Item 3</i>  | .680 |             | .680 |             |
| D54  | <i>Item 4</i>  | .637 |             | .637 |             |
| D55  | <i>Item 5</i>  | .580 |             | .580 |             |
| D56  | <i>Item 6</i>  | .766 |             | .766 |             |
| D57  | <i>Item 7</i>  | .678 |             | .678 |             |
| D58  | <i>Item 8</i>  | .692 |             | .692 |             |
| D59  | <i>Item 9</i>  | .637 |             | .637 |             |
| D60  | <i>Item 10</i>   | .686 |             | .686 |             |
| <b>E</b>                                       | <b><u>E: E-Marketing Adoption</u></b>  |      | <b>.800</b> |      | <b>.800</b> |
| <b>E1</b>                                      | <b><i>Item 1</i></b>   | .428 |             | .428 |             |
| E2   | <i>Item 2</i>  | .507 |             | .507 |             |
| E3   | <i>Item 3</i>  | .539 |             | .539 |             |
| E4   | <i>Item 4</i>  | .592 |             | .592 |             |
| E5   | <i>Item 5</i>  | .754 |             | .754 |             |
| E6   | <i>Item 6</i>  | .758 |             | .758 |             |

|   |  |      |             |      |             |
|---|--|------|-------------|------|-------------|
| E7  | Item 7   | .553 |             | .553 |             |
| <b><u>F: The Current Financial Performance Measures</u></b>     |  |      |             |      |             |
| <b>F1</b>   | <b>Profit Performance</b>  |      | <b>.872</b> |      | <b>.872</b> |
| F11   | Total firm's profitability growth.   | .739 |             | .739 |             |
| F12   | Gross Profit Margin.   | .786 |             | .786 |             |
| F13   | Net profit from new operations.  | .786 |             | .786 |             |
| F14   | Increase on Return on Marketing Investment   | .601 |             | .601 |             |
| <b>F2</b>   | <b>Sales Performance</b>   |      | <b>.922</b> |      | <b>.922</b> |
| F21   | Increase sales growth.   | .848 |             | .848 |             |
| F22   | Creation of new markets<br>Easier entry into new market.                                 | .819 |             | .819 |             |
| F23   | Increase in market share of your products or services.                                   | .879 |             | .879 |             |
| <b><u>G: The Current Non-Financial Performance Measures</u></b> |  |      |             |      |             |
| <b>G1</b>   | <b>Efficiency Performance</b>  |      | <b>.925</b> |      | <b>.925</b> |
| G11   | Change in Customer Ordering.   | .621 |             | .621 |             |
| G12   | Online Ordering and Purchasing and 24/7 Availability of Placing Orders.                  | .599 |             | .599 |             |
| G13   | Order Accuracy.  | .570 |             | .570 |             |
| G14   | Process Enhancement.   | .675 |             | .675 |             |
| G15   | Value Improvement of Service/Product   | .704 |             | .704 |             |
| G16   | Quality Improvement of Service/Product.  | .616 |             | .616 |             |
| G17   | Improve customer service.  | .754 |             | .754 |             |
| G18   | Product Development  | .683 |             | .683 |             |
| G19   | New service  | .715 |             | .715 |             |
| G20   | Increase the accessibility to more customers.  | .724 |             | .724 |             |
| G21   | Support linkage with suppliers.  | .681 |             | .681 |             |
| G22   | Increase the ability to compete.   | .716 |             | .716 |             |
| G23   | Help in making decisions.  | .693 |             | .693 |             |
| G24   | Support cooperative partnership in the industry.   | .640 |             | .640 |             |
| G25   | Improve collaboration and partnership among firms in order to increase the market share. | .545 |             | .545 |             |
| G26   | Availability of expertise regardless of physical location.                               | .628 |             | .628 |             |
| G27   | Improved communications.   | .669 |             | .669 |             |
| G28   | Faster, more flexible communication and delivery from supplier.                          | .637 |             | .637 |             |
| G29   | Gathering Better service and support from suppliers.                                     | .608 |             | .608 |             |
| G30   | New customers.   | .661 |             | .661 |             |
| G31   | Greater customer loyalty.  | .603 |             | .603 |             |
| G32   | Cut costs of traditional marketing methods.  | .681 |             | .681 |             |
| G33   | Changes in customer retention.   | .690 |             | .690 |             |
| G34   | Identify New Suppliers.  | .587 |             | .587 |             |
| G35   | Delivery Reliability.  | .536 |             | .536 |             |
| <b>G2</b>   | <b>Knowledge Performance</b>   |      | <b>.877</b> |      | <b>.877</b> |
| G21   | Improved informative quality.  | .613 |             | .613 |             |
| G22   | Better awareness of business environment.  | .673 |             | .673 |             |

|   |   |      |             |      |             |
|---|---|------|-------------|------|-------------|
| G23   | Technological knowledge.  | .786 |             | .786 |             |
| G24   | New ideas about new technology services.                                    | .856 |             | .856 |             |
| G25   | Enhancement of the managerial capabilities.                                 | .744 |             | .744 |             |
| <b>G3</b>   | <b>Operational Performance</b>  |      | <b>.744</b> |      | <b>.744</b> |
| G31   | Free the business of technical disruption/delays.                           | .653 |             | .653 |             |
| G32   | Aid and improve the inter-company communication.                            | .652 |             | .652 |             |
| G33   | Elimination of geographical restriction and market/sell across the country. | .627 |             | .627 |             |
| G34   | Time reduction of routine service jobs.                                     | .644 |             | .644 |             |
| <b>G4</b>   | <b>Realisation of company's goals Performance</b>                           |      | <b>.864</b> |      | <b>.864</b> |
| G41   | Enhancement of the company's brand image and reputation.                    | .792 |             | .792 |             |
| G42   | Overall success in the distribution sector.                                 | .761 |             | .761 |             |
| G43   | Longevity and sustainability in the market.                                 | .761 |             | .761 |             |
| <b><u>H: The Future Financial Performance Measures</u></b>      |   |      |             |      |             |
| <b>H1</b>   | <b>Profit Performance</b>   |      | <b>.790</b> |      | <b>.790</b> |
| H11   | Total firm's profitability growth.  | .667 |             | .667 |             |
| H12   | Gross Profit Margin.  | .561 |             | .561 |             |
| H13   | Net profit from new operations.   | .664 |             | .664 |             |
| H14   | Increase on Return on Marketing Investment                                  | .521 |             | .521 |             |
| <b>H2</b>   | <b>Sales Performance</b>  |      | <b>.730</b> |      | <b>.730</b> |
| H21   | Increase sales growth.  | .570 |             | .570 |             |
| H22   | Creation of new markets<br>Easier entry into new market.                    | .633 |             | .633 |             |
| H23   | Increase in market share of your products or services.                      | .582 |             | .582 |             |
| <b><u>I: The Future Non- Financial Performance Measures</u></b> |   |      |             |      |             |
| <b>I1</b>   | <b>Efficiency Performance</b>   |      | <b>.734</b> |      | <b>.734</b> |
| I11   | Change in Customer Ordering.  | .440 |             | .440 |             |
| I12   | Online Ordering and Purchasing and 24/7 Availability of Placing Orders.     | .631 |             | .631 |             |
| I13   | Order Accuracy.   | .664 |             | .664 |             |
| I14   | Process Enhancement.  | .669 |             | .669 |             |
| I15   | Value Improvement of Service/Product  | .565 |             | .565 |             |
| I16   | Quality Improvement of Service/Product.                                     | .762 |             | .762 |             |
| I17   | Improve customer service.   | .606 |             | .606 |             |
| I18   | Product Development   | .603 |             | .603 |             |
| I19   | New service   | .589 |             | .589 |             |
| I20   | Increase the accessibility to more customers.                               | .705 |             | .705 |             |
| I21   | Support linkage with suppliers.   | .510 |             | .510 |             |
| I22   | Increase the ability to compete.  | .614 |             | .614 |             |
| I23   | Help in making decisions.   | .623 |             | .623 |             |
| I24   | Support cooperative partnership in the industry.                            | .533 |             | .533 |             |

|           |  |      |             |      |             |
|-----------|--|------|-------------|------|-------------|
| I25       | Improve collaboration and partnership among firms in order to increase the market share. | .648 |             | .648 |             |
| I26       | Availability of expertise regardless of physical location.                               | .523 |             | .523 |             |
| I27       | Improved communications.   | .544 |             | .544 |             |
| I28       | Faster, more flexible communication and delivery from supplier.                          | .629 |             | .629 |             |
| I29       | Gathering Better service and support from suppliers.                                     | .665 |             | .665 |             |
| I30       | New customers.   | .564 |             | .564 |             |
| I31       | Greater customer loyalty.  | .610 |             | .610 |             |
| I32       | Cut costs of traditional marketing methods.  | .600 |             | .600 |             |
| I33       | Changes in customer retention.   | .665 |             | .665 |             |
| I34       | Identify New Suppliers.  | .662 |             | .662 |             |
| I35       | Delivery Reliability.  | .604 |             | .604 |             |
| <b>I2</b> | <b>Knowledge Performance</b>   |      | <b>.846</b> |      | <b>.846</b> |
| I21       | Improved informative quality.  | .614 |             | .614 |             |
| I22       | Better awareness of business environment.  | .627 |             | .627 |             |
| I23       | Technological knowledge.   | .685 |             | .685 |             |
| I24       | New ideas about new technology services.   | .725 |             | .725 |             |
| I25       | Enhancement of the managerial capabilities.  | .624 |             | .624 |             |
| <b>I3</b> | <b>Operational Performance</b>   |      | <b>.771</b> |      | <b>.771</b> |
| I31       | Free the business of technical disruption/delays.  | .676 |             | .676 |             |
| I32       | Aid and improve the inter-company communication.   | .601 |             | .601 |             |
| I33       | Elimination of geographical restriction and market/sell across the country.              | .611 |             | .611 |             |
| I34       | Time reduction of routine service jobs.  | .628 |             | .628 |             |
| <b>I4</b> | <b>Realisation of company's Goals Performance</b>  |      | <b>.762</b> |      | <b>.762</b> |
| I41       | Enhancement of the company's brand image and reputation.                                 | .548 |             | .548 |             |
| I42       | Overall success in the distribution sector.  | .687 |             | .687 |             |
| I43       | Longevity and sustainability in the market.  | .765 |             | .765 |             |

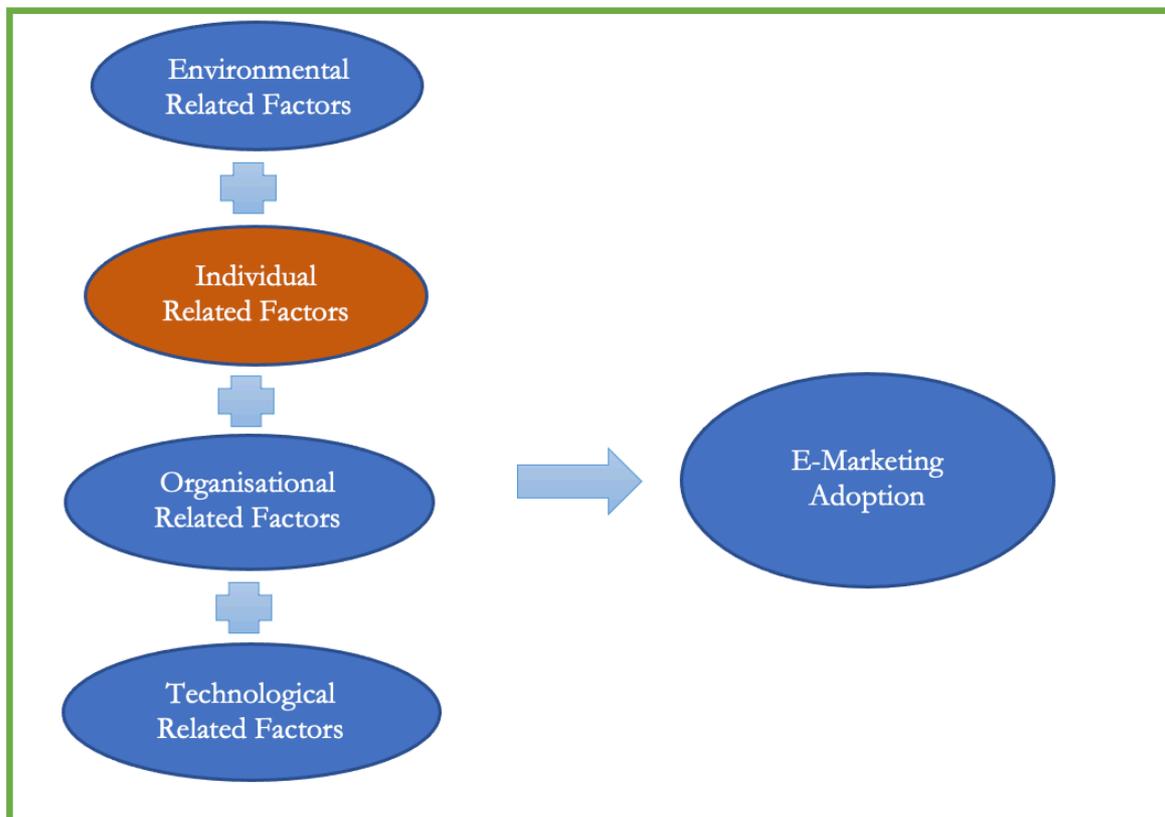
Table 9-3 summaries the results of Cronbach's Alpha. The Cronbach's alpha's value and the item-to-total values, all are significantly higher than the reliability's acceptable levels suggested by Hair *et al.* (2014), Hair *et al.* (2009), Field (2009), Vogt (2007), Netemeyer *et al.* (2003), and Hinton *et al.* (2004). Subsequently, the research measures are satisfactory adequate for conducting data analysis through inferential statistics for testing the research hypothesis.

**Table 9.3:** Reliability Test for the Research Variables and Concepts

| Item Code | Item  | Cronbach's Alpha | Total Number of Items |
|-----------|---|------------------|-----------------------|
| <b>A</b>  | <b><u>A. Environmental Factors</u></b>  |                  |                       |
| A1        | The Business Partner Affiliation  | 0.764            | 6                     |
| A2        | Intensity of National E-Readiness   | 0.861            | 4                     |
| A2        | External IT Support   | 0.802            | 5                     |
| <b>B</b>  | <b><u>B. Individual Factors</u></b>   |                  |                       |
| B1        | Normative Social Influences   | 0.859            | 10                    |
| B2        | Owner/Manager Support   | 0.844            | 6                     |
| B3        | Perceived Ease of Use   | 0.800            | 10                    |
| B4        | Job fit with PC use   | 0.831            | 11                    |
| B5        | Long-term Consequences of PC use  | 0.815            | 6                     |
| <b>C</b>  | <b><u>C: Organisation Related Factors</u></b>   |                  |                       |
| C1        | Organisation's Culture  | 0.717            | 5                     |
| C2        | Organisation's E-readiness  | 0.796            | 11                    |
| C3        | Receptivity toward change   | 0.710            | 5                     |
| C4        | Marketing Capabilities of Organisation  | 0.928            | 4                     |
| C5        | The Degree of Decentralisation  | 0.818            | 10                    |
| C6        | The Intensity of Regulations  | 0.751            | 5                     |
| C7        | Employees' IT Knowledge   | 0.701            | 6                     |
| C8        | Management IT Knowledge   | 0.827            | 4                     |
| <b>D</b>  | <b><u>D: Technological Related Factors</u></b>  |                  |                       |
| D1        | Physical Infrastructures and Sufficient Accessibility to Internet Resources                               | 0.888            | 8                     |
| D2        | Intensity of cost effects   | 0.903            | 4                     |
| D3        | Perceived Benefits  | 0.812            | 6                     |
| D4        | The Intensity of Perceived Compatibility  | 0.720            | 4                     |
| D5        | The Relative Advantage  | 0.873            | 10                    |
| <b>E</b>  | <b><u>E: E-Marketing Adoption</u></b>   | 0.800            | 7                     |
| <b>F</b>  | <b><u>F: The Current Effect of Implementing E-Marketing on The Financial Performance Measures</u></b>     |                  |                       |
| F1        | Profit Performance  | 0.872            | 4                     |
| F2        | Sales Performance   | 0.922            | 4                     |
| <b>G</b>  | <b><u>G: The Current Effect of Implementing E-Marketing on The Non-Financial Performance Measures</u></b> |                  |                       |
| G1        | Efficiency Performance  | 0.925            | 25                    |
| G2        | Knowledge Performance   | 0.877            | 4                     |
| G3        | Operational Performance   | 0.744            | 4                     |
| G4        | Realisation of company's goals Performance  | 0.864            | 3                     |
| <b>H</b>  | <b><u>F: The Future Effect of Implementing E-Marketing on The Financial Performance Measures</u></b>      |                  |                       |
| H1        | Profit Performance  | 0.790            | 4                     |
| H2        | Sales Performance   | 0.730            | 4                     |
| <b>I</b>  | <b><u>G: The Future Effect of Implementing E-Marketing on The Non-Financial Performance Measures</u></b>  |                  |                       |
| I1        | Efficiency Performance  | 0.734            | 25                    |
| I2        | Knowledge Performance   | 0.846            | 4                     |
| I3        | Operational Performance   | 0.771            | 4                     |
| I4        | Realisation of company's goals Performance  | 0.762            | 3                     |

### 9.3 E-Marketing Adoption

This research aims to extend an integrative model to understand the factors that influence the adoption of E-Marketing by Iranian Distribution Firms. In the context of E-Marketing adoption stage, the inferential analysis for the purified data that resulted from the item purification stage, were conducted in five models. In these models, the relationships (covariation) between the factors influencing the adoption of E-Marketing among Iranian firms (independent variables) with E-Marketing Adoption (dependent variable) were tested statistically. The independent variables included environmental, individual, organisational, and technological related factors. Figure 9.2 presents the dependent and independent variables in the analysis of E-Marketing adoption stage.



**Figure 9.2:** An Extended Integrative Model of Understanding E-Marketing Adoption by Iranian Distribution Firms  
**Source:** The Researcher

The first model analysed the relationship between Environmental related factors and E-Marketing adoption. The extended variables that explain this factor were The Business Partner Affiliation, Intensity of national e-readiness, and External IT Support factors which has never been tested in Iran study context. Furthermore, this study investigated the item regarding the intensity of national e-readiness, as this factor was studied in a different research context

(mainly related to developing countries research context in previous studies). For example, the research conducted by Andersson *et al.* (2006), and Ismail and Kuivalainen (2015).

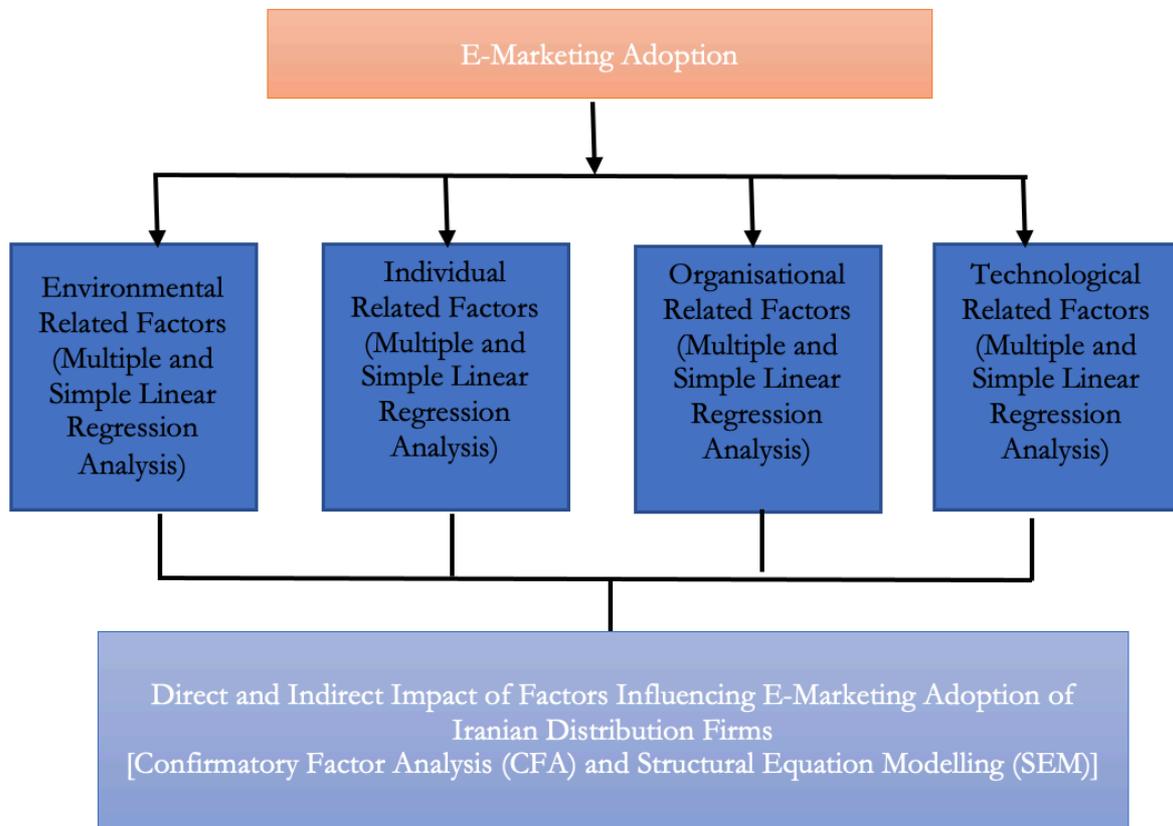
The second stage was the analysis of the relationship between Individual related factors and E-Marketing adoption. The purified variables within this factor include The Normative Social Influences, Owner/Manager Support (Involvement), Perceived Ease of Use, Job Fit with PC Use, and Long-term Consequences of PC Use. The study extended three new variables from Model of PC utilisation which are the job fit with PC use, the normative social influences, and Long-term consequences of PC use which are the variables been adopted from the model of PC utilization. Moreover, there is no empirical study that has integrated the MPCU model with other theories of technology adoption.

The third stage was concerned with the analysis of the relationship between Organisation related factors and E-Marketing adoption. The purified variables from the exploratory study within this factor include Organisation's Culture, Organisation's E-Readiness (Firm's Financial Resources, Firm's IT Infrastructure, Human Infrastructure), Receptivity (Attitude) toward change, Marketing Capabilities of the Organisation, The Degree of Decentralisation, Degree of Formalisation, Employees' IT Knowledge and Management IT Knowledge .Within these variables, The Degree of Decentralisation, Degree of Formalisation, Receptivity (Attitude) toward Change, Organisation Culture, and Marketing Capabilities of the Organisation are the new variables that has never been tested in Iran context.

The fourth stage was concerned with the analysis of the relationship between Technological related factors. The variables explaining the factors Include Physical Infrastructures and Sufficient Accessibility to Internet Resources, Cost effects, Perceived benefits, Compatibility, and Relative Advantage. Within these variables, The Physical Infrastructures and Sufficient Accessibility to Internet Resources is the new variable that has never been tested in Iran context. These factors were purified in the exploratory study due to high consent in the interviews conducted. The analyses were conducted through multiple and simple linear regression.

Finally, the study conducted a broad statistical test by combining all factors in measuring the relationship to E-Marketing adoption. The aim is to understand the integration of these variables in influencing the adoption behaviour of Iranian distribution firms through E-Marketing and to understand the role of external variables in mediating the Relationship between internal factors and E-Marketing adoption. Therefore, the study used Path Analysis in

the Structural Equation Modelling by deploying AMOS software version 24 to measure the direct and indirect relationship of these variables in influencing Iranian distribution firms' E-Marketing adoption. Figure 9.3 shows the statistical analysis stages and the tools used within the first stage of inferential analysis.



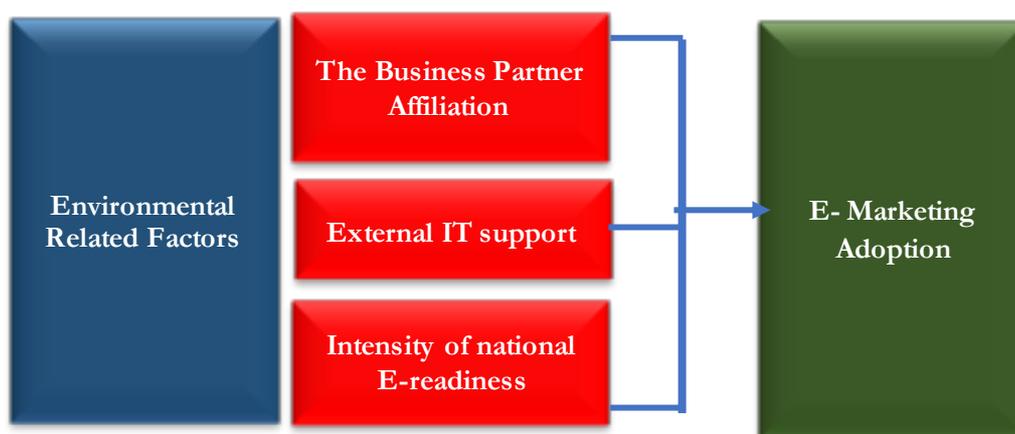
**Figure 9.3:** Inferential Analysis Stages and Techniques Used in E-Marketing Adoption Analysis

**Source:** The Researcher

Analysis of each stage generated a hypothesis test model which in fact results to answer the research questions and met the research aims and objectives. The following sub-topics are explaining the hypothesis tests within all these statistical models.

### 9.3.1 Model 1: Environmental Factors Influencing the E-Marketing Adoption of Iranian Distribution Firms

Within the environmental related factors, a set of variables including The Business Partner Affiliation, External IT Support, and Intensity of National E-Readiness were examined on the impact to E-Marketing adoption by Iranian distribution firms. The framework of model 1 is demonstrated in Figure 9.4.



**Figure 9.4:** Model 1: Impacts of Environmental Factors on E-Marketing Adoption by Iranian Distribution Firms  
**Source:** The Researcher

Based on the above theoretical framework, Table 9.4 below demonstrates hypotheses conducted to examine the impact of environmental related factors on E-Marketing adoption by Iranian distribution firms.

**Table 9.4:** Hypotheses Related to Impacts of Environmental Related Factors on E-Marketing Adoption by Iranian Distribution Firms

| Hypotheses |  |
|------------|--|
| H1A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on The Business Partner Affiliation.                    |
| H1B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Intensity of organisations' national e-readiness |
| H1C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the external IT support.                             |

The hypotheses were tested through multiple regression technique to explore the relationship of E-Marketing adoption (as a dependent variable) and environmental related variables as independent variables.

### 9.3.1.1 Hypotheses Testing Procedures

Investigating the relationships of effect and cause among variables through 1- testing hypotheses, 2- concerning the population differences; and 3- based on measurements of research samples is what it meant by inferential analysis (Tabachnick and Fidell, 2007) which is defined by Collis (2009, P: 222) as a set of statistical techniques and models that is used to draw conclusion about a sample population of a random sample from quantitative data. Researcher have been used Inferential statistics to enable correlation test and regression

analysis for identifying underlying factors, and to examine the relationship of these factors upon the adoption of E-Marketing from the perspective of Iranian Distribution Firms. Research hypotheses have an important role to answer the research questions and to meet the research aims and objectives. For testing each of the research hypotheses, the study followed five steps: 1) To identify the applicable statistical methods to be adopted; 2) determining and finding the rejection section by searching the critical value in the suitable table; 3) analyse and calculate the statistical test; 4) illustrating conclusion for rejection or acceptance of the null hypothesis; and finally, 5) interpreting the result (El-Gohary, 2009).

In regard of statistical techniques adopted to test the hypotheses, this study chosen the linear regression and multiple regression methods suitable to assess the relationship (covariation) between a dependent variable (E-Marketing adoption) and groups of independent variables related to factors influencing E-Marketing adoption of Iranian distribution firms and to indicate how much of variance on the dependent variable was explained by the independent variable. Moreover, the research determined Structural Equation Modelling (SEM) as the most suitable method to investigate the direct and indirect impact of the independent variables' impact on E-Marketing adoption (dependent variable).

### **9.3.1.2 Multiple Regression Analysis**

The regression is one of the statistical techniques that is examined the relationship between dependent variables with one or more independent variables (Field, 2009). This statistical process is used to identify the independent variables that are related to one dependent variable, which is useful to estimate the level of the effect of more than one independent variables on the dependent variable (Tabachnik and Fidell, 2007). Within the analysis of E-Marketing adoption stage in this research, the study tried to calculate how well a group of sub-scales on environmental, individual, organisational and technological context can predict E-Marketing adoption of Iranian distribution firms.

The calculation of multiple regression in this study is through the following equation:

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_nx_n + \epsilon.$$

Where “Y” refers to the predicted value of the dependent variable, “ $\beta_0$ ” refers to the Y intercept, the value of Y when all Xs=0, X is the different independent variables,  $\beta_1 \dots n$  refers

to different independent variables for prediction of the dependent variable and finally “ $\epsilon$ ” is standard error of the estimates. The value of Y can be calculated by finding the value of all independent variables or Beta coefficient ( $\beta_1 \dots n$ ). Beta is the average quantity which the dependent variable increases, when the independent variable increases through one standard deviation, whereas the other independent variables are assumed as persistent. For estimation through SPSS software, the Beta value is called as unstandardised coefficient value. Whereas in standardised the values for each of the variables, have been re-novated to the same scale, Thus the influences of all variables can be compared with other variables. Hence, Pallant (2016) proposed to relate to the Standardised Beta Coefficient to know which of the independent variables comprised in the model contributed to the prediction of the dependent variable.

Previous researcher within this research context (Field, 2017, Pallant, 2016, and El-Gohary 2009) are adopted the analysis of variance (ANOVA) to evaluate the statistical significance of the adopted model as a whole, by assessing the contribution of independent variables on the dependent variable. Moreover, the F-statistic which is a proportion of two variances is adopted to test the null hypothesis. According to the Pallant (2016), similar to other social science statistical tests, the common cut-off point is the model should be with a significant value at the minimum of 0.05.

Furthermore, to prevent the redundancy of variables within this study, multicollinearity test was investigated which exists when two or more of the independent variables used in regression are moderately or highly correlated each other at level of 0.9 and above which is a high level of correlation (Mendenhall *et al.*, 2003, and Kleinbaum *et al.*, 1998), while singularity exists when the independent variables are correlated. Therefore, this research tested the multicollinearity throughout Tolerance and Variance Inflation Factor (VIF) tool. Tolerance is an indicator of how much of the inconsistency of the indicated independent variable is not explained by the other independent variable in the model. A tolerance with the value of less than 0.10 specifies that the correlation with other variables is high, signifying the presence of multicollinearity among the independent variables. Whereas Variance Inflation Factor (VIF) is the opposite of the Tolerance VIF is an index that measures how much the variance of a coefficient is increased. The value above 10 would show multicollinearity and would be a concern (Pallant, 2016). One such criterion is suggested by Menard (1995), and it specifies that

a tolerance value of less than 0.1 demonstrates evidence of multicollinearity problem whereas the VIF values more than 10 similarly shows presence of multicollinearity problems.

Therefore, to achieve a good generalisable research results, the researcher needs to assure, if the sample size or number of respondents in the study is appropriate (Hair *et al*, 2014). (Stevens 1996, P. 72, c.f. Pallant, 2016, P. 151) suggest that for multiple regression, around 15 respondents per independent variable is needed for a reliable equation. Correspondingly, Tabachnick and Fidell (2007, P. 201) suggested a formula for calculation of the appropriate sample size in study that allows the researcher for the generalisation of the results. The formula is  $N$  that is greater than  $50+8m$  where “ $m$ ” refers to the number of independent variables (Pallant, 2016). Based on this formula by Tabanick and Fidell (2007), this research must obtain a minimum 218 cases since the number of independent variables is 21 (as discussed prior in the Research Methodology in Chapter Five). Therefore, this requirement has been met since the final data used in this study was 231 cases.

### 9.3.1.3 Hypotheses Testing Results

The research conducted multiple regression to evaluate the relationship between environmental related factors and E-Marketing adoption of Iranian distribution firms. The following equation describes Model 1:

$$\text{E-Marketing Adoption} = \text{Constant} + \beta_1 \text{ The Business Partner Affiliation (H1A)} + \beta_2 \text{ The Intensity of National E-Readiness (H1B)} + \beta_3 \text{ External IT Support (H1C)} + \epsilon$$

The independent variables related to environmental factors and dependent variable were entered simultaneously in a single block. The model was found statistically fit, which showed a percentage of 21% of the independent variables explaining the E-Marketing adoption of Iranian distribution firms. Table 9.5 illustrates that while R-value was 0.467, R<sup>2</sup> was 0.218 and followed by adjusted R<sup>2</sup> 21%. Thus, The Business Partner Affiliation, the intensity of national e- readiness, external IT support explain E-Marketing adoption by Iranian distribution firms in a good way.

**Table 9.5:** Model Summary <sup>b</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .467 <sup>a</sup> | .218     | .207              | 3.06349                    |

a. Predictors (Constant): The Business Partner Affiliation, the Intensity of National E- Readiness, External IT Support.

b. Dependent Variable: E-Marketing Adoption

The study then tested the corresponding null hypothesis that there is no linear relationship between the dependent variable (E-Marketing adoption) and independent variable (The Business Partner Affiliation, The intensity of national e- readiness and External IT support) through analysis of variance (ANOVA). Table 9.6 shows that the model determines that there is a significant level (F value = 21.061,  $P < 0.001$ ) of independent variables influence E-Marketing adoption of Iranian distribution firms.

**Table 9.6:** Summary of ANOVA b Results

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1     | Regression | 592.971        | 3   | 197.657     | 21.061 | .000 <sup>a</sup> |
|       | Residual   | 2130.388       | 227 | 9.385       |        |                   |
|       | Total      | 2723.359       | 230 |             |        |                   |

a. Predictors (Constant): The Business Partner Affiliation, the Intensity of National E- Readiness, External IT Support.

b. Dependent Variable: E-Marketing Adoption

The study then evaluated null hypothesis by partial coefficient analysis to find out which of the variables included in the Model 1 contributed to the prediction of the dependent variable. T statistic and the P value, which is an observed significant level, were used in the statistical method (Table 9.7).

**Table 9.7:** Result of Regression Coefficients <sup>a</sup>

| Model 1 |  | Unstandardized Coefficients |            | Standardized Coefficients | t-value | Sig. | Collinearity Statistics |       |
|---------|--|-----------------------------|------------|---------------------------|---------|------|-------------------------|-------|
|         |  | B                           | Std. Error | Beta                      |         |      | Tolerance               | VIF   |
| 1       | (Constant)                             | 22.591                      | 1.561      |                           | 14.470  | .000 |                         |       |
|         | The Business Partner Affiliation       | .167                        | .061       | .199                      | 2.754   | .006 | .777                    | 1.287 |
|         | The Intensity of National E- Readiness | -.050                       | .084       | -.041                     | -.593   | .554 | .869                    | 1.151 |
|         | External IT Support                    | .157                        | .072       | .158                      | 1.916   | .044 | .362                    | 1.312 |

a. Dependent Variable: E-Marketing Adoption

Table 9.7 shows that the study can safely reject the null hypothesis that the coefficient related for The Business Partner Affiliation ( $B = 0.199$ ,  $t = 2.754$ ,  $p < 0.05$ ) and external IT support ( $B = 0.158$ ,  $t = 1.916$ ,  $p < 0.05$ ) are equal to zero. However, the study accepted the null hypothesis of

The Intensity of National E-Readiness ( $B = -0.41$ ,  $t = -0.593$ ,  $p > 0.05$ ) since this factor does not contribute significantly to E-Marketing adoption of Iranian distribution firms. The Beta weights show that the most influential factor within the environmental factors is The Business Partner Affiliation ( $B = 0.199$ ), followed by external IT support ( $B = 0.158$ ) and the intensity of national e-readiness ( $B = -0.041$ ). Moreover, the result satisfies multicollinearity results with each variable accounting for a VIF of between 1.151 and 1.312 (refer to table 9.7).

In response to the result of the non-significant contribution of the intensity of national e-readiness on the dependent variable (E-Marketing adoption), this study conducted linear regression on the independent variable to confirm the individual relationship finding. Moreover, it is appropriate to conduct the linear regression test since the research data were collected throughout a five-point Likert scale (e.g., Javalgi *et al.*, 2003; and Fink and Kraus, 2007). Table 9.8 shows the result of simple regression on the independent variable. Moreover, Hair et al (2009), Schertzer and Kernan (1985), and Madsen (1989) suggested that linear regression undertakes equal intermissions among scale items and consequently generate data that can be assumed to be internally scaled therefore approves the suitability of the method and make them a proximate metric data that can be investigated by regression analysis

**Table 9.8:** Result of Simple Regression Analysis on the Intensity of National E- Readiness and E-Marketing Adoption

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .174 <sup>a</sup> | .030     | .026              | 3.39604                    |

a. Dependent Variable: E-Marketing Adoption

Table 9.8 shows the R-value for the intensity of national e-readiness is 0.063 followed by R square of 0.004 and adjusted R square of 0.026. This result infers that the intensity of national e-readiness explains 3% of the total observed variation in E-Marketing adoption. Although the hypotheses for the Intensity of national e-readiness is rejected, this study conducted a linear regression analysis on each factor to support this finding. Furthermore, the linear regression test was conducted to determine the importance of each independent variables in relation to the dependent variable (E-Marketing adoption). Yet, the linear regression result demonstrates the independent variable (The intensity of national e-readiness) have no significant contribution to the E-Marketing adoption by Iranian distribution firms. To confirm the statistical insignificance of the variable relationship, ANOVA analysis was used (refer to table 9.9). However, the linear regression analysis shows the independent variable have significant

contribution to the E-Marketing adoption by Iranian distribution firms. The result of linear regression shows that the intensity for national e-readiness has significant contribution at the level of  $P < 0.005$  ( $B = 0.174$ ,  $t = 2.671$ ). The result suggests that the independent variable (The intensity of national e-readiness) was overshadowed when entered with other 2 variables (The Business Partner Affiliation and the external IT support) in a single block in multiple regression analysis.

**Table 9.9:** Result of Simple Regression Analysis on the Intensity of National E- Readiness and E-Marketing Adoption

| Model |            | Sum of Squares | df  | Mean Square | F     | Sig.              |
|-------|------------|----------------|-----|-------------|-------|-------------------|
| 1     | Regression | 82.276         | 1   | 82.276      | 7.134 | .008 <sup>b</sup> |
|       | Residual   | 2641.083       | 229 | 11.533      |       |                   |
|       | Total      | 2723.359       | 230 |             |       |                   |

a. Dependent Variable: E-Marketing Adoption

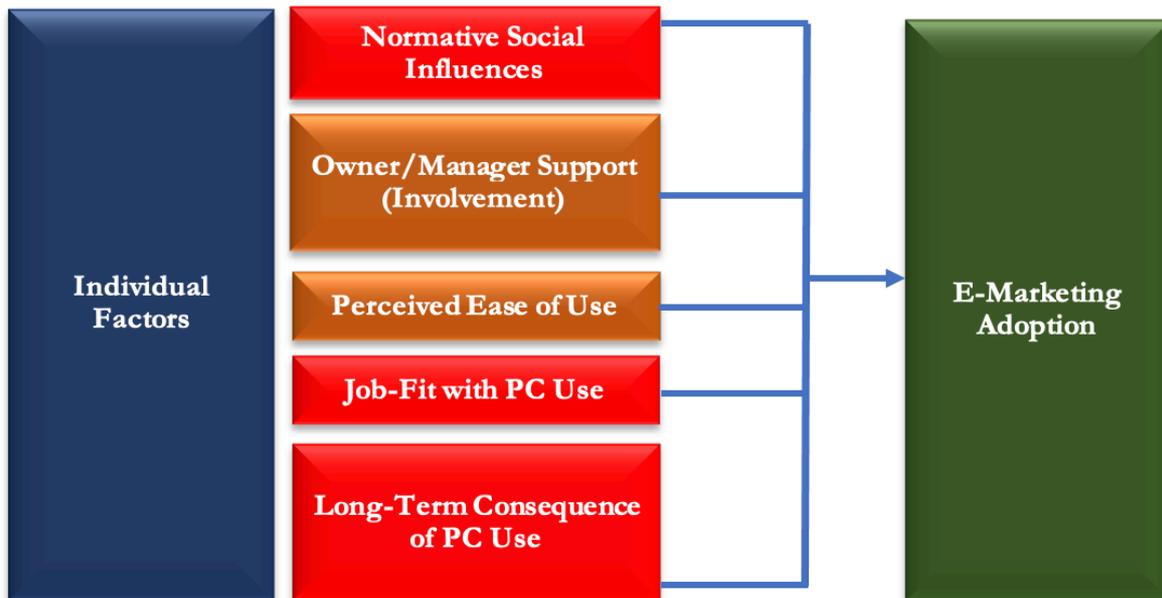
Based on the result of the linear regression analysis on the intensity of national e- readiness, this research concludes that there is an over-shadow between the variables when conducted the multiple regression in the previous section. Therefore, the final results of hypotheses tested in Model 1 are summarised in Table 9.10.

**Table 9.10:** Final Outcomes for the Hypotheses Test in Model 1

| Hypotheses |  | Results  |
|------------|--|----------|
| H1A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on The Business Partner Affiliation.                    | Accepted |
| H1B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Intensity of organisations' national e-readiness | Rejected |
| H1C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the external IT support.                             | Accepted |

### 9.3.2 Model 2: Individual Factors Influencing the E-Marketing Adoption of Iranian Distribution Firms

Within the Model 2, this research investigates the impacts of Individual factors on adoption of E-Marketing by Iranian distribution firms. The subscales measured in Model 2 include Normative Social Influences, Owner/Manager Support (Involvement), Perceived Ease of Use, Job-fit with PC Use and Long-term Consequence of PC Use. The framework of statistical analysis for model 2 is demonstrated in the following figure 9.5.



**Figure 9.5:** Model 2: Analyses on Impacts of Individual Factors on E-Marketing Adoption by Iranian Distribution Firms

**Source:** The Researcher

Based on Model 2 framework in Figure 9.5, this research constructed hypotheses to understand the roles of Individual related factors on E-Marketing adoption of Iranian distribution firms. The hypotheses are outlined in Table 9.11.

**Table 34** Hypotheses Related to Impacts of Individual Factors on E-Marketing Adoption by Iranian Distribution Firms

| Hypotheses |   |
|------------|---|
| H2A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the normative social influences.              |
| H2B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the owner/manager support.                    |
| H2C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing perceived ease of use.            |
| H2D        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Job fit with PC use.                      |
| H2E        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the consequences of the long-terms of PC use. |

The hypotheses in Model 2 had been tested through multiple regression in SPSS software version 24.

### 9.3.2.1 Hypotheses Testing Results

In response to the research’s aim to conduct the multiple regression for variable relationship, the statistical test for Model 2 has illustrated using the following equation:

$$\text{E-Marketing adoption} = \text{Constant} + \beta_1 \text{ the normative social influences (H2A)} + \beta_2 \text{ Owner/Manager support (involvement) (H2B)} + \beta_3 \text{ perceived ease of use (H2C)} + \beta_4 \text{ job fit with PC use (H2D)} + \beta_5 \text{ long-term consequence of PC use (H2E)} + \epsilon$$

The research entered all the variables related to individual context into a single block to test the hypotheses. It has been found that the combination of all variables explained model 2 in an acceptable way. Table 9.12 reveals that 27% of the observed variation in E-Marketing adoption is explained by the five variables related to Individual context ( $R = 0.538$ ,  $R^2 = 0.290$ , Adjusted  $R^2 = 0.274$ ).

**Table 9.12:** Model Summary<sup>b</sup>

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .538 <sup>a</sup> | .290     | .274              | 2.93178                    |

**a. Predictors (Constant):** The Normative Social Influences, Owner/Manager Support (Involvement), Perceived Ease of Use, Job Fit with PC Use, and Long-Term Consequence of PC Use

**b. Dependent Variable:** E-Marketing Adoption

To measure the statistical significance of the result, the research examined the null hypothesis that there is no linear relationship between dependent variable (E-Marketing adoption) and independent variables related to individual context. This process was conducted by analysis of variance ANOVA. Table 9.13 Shows the result of ANOVA analysis which indicates a statistical significance contribution of the individual context on E-Marketing adoption by Iranian distribution firms ( $F = 18.293$ ,  $P < 0.001$ ).

**Table 9.13:** Summary of ANOVA<sup>b</sup> Results

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1     | Regression | 786.165        | 5   | 157.233     | 18.293 | .000 <sup>a</sup> |
|       | Residual   | 1925.354       | 224 | 8.595       |        |                   |
|       | Total      | 2711.519       | 229 |             |        |                   |

**a. Predictors (Constant):** The Normative Social Influences, Owner/Manager Support (Involvement), Perceived Ease of Use, Job Fit with PC Use, and Long-Term Consequence of PC Use

**b. Dependent Variable:** E-Marketing Adoption

The study conducted null hypotheses test of partial regression coefficient to find out which of the variables included in model 2 contributed to the prediction of the dependent variable (E-Marketing adoption). T statistics and its observed significance level were observed in the regression coefficients table. Table 9.14 shows the results of regression coefficients.

**Table 9.14:** Result of Regression Coefficients <sup>a</sup>

| Model 1 |                                    | Unstandardized Coefficients |            | Standardized Coefficients | t-value | Sig.        | Collinearity Statistics |       |
|---------|------------------------------------|-----------------------------|------------|---------------------------|---------|-------------|-------------------------|-------|
|         |                                    | B                           | Std. Error | Beta                      |         |             | Tolerance               | VIF   |
| 1       | (Constant)                         | 15.856                      | 1.533      |                           | 10.341  | .000        |                         |       |
|         | Normative social influences        | .100                        | .036       | .187                      | 2.785   | <b>.006</b> | .702                    | 1.424 |
|         | Owner/Manager support(Involvement) | .098                        | .047       | .130                      | 2.062   | <b>.040</b> | .803                    | 1.245 |
|         | Perceived Ease of Use              | .095                        | .047       | .157                      | 2.039   | <b>.043</b> | .531                    | 1.883 |
|         | Job fit with PC Use                | .092                        | .035       | .209                      | 2.648   | <b>.009</b> | .510                    | 1.960 |
|         | Long-term consequence of PC use    | .156                        | .070       | .175                      | 2.245   | <b>.026</b> | .521                    | 1.918 |

a. Dependent Variable: E-Marketing Adoption

Table 9.14 confirms that the researcher can safely reject the null hypotheses that the coefficient for normative social influences ( $B = 0.187$ ,  $t = 2.785$ ,  $p < 0.05$ ), owner/manager support(involvement) ( $B = 0.130$ ,  $t = 2.062$ ,  $p < 0.05$ ), perceived ease of use ( $B = 0.157$ ,  $t = 2.039$ ,  $p < 0.05$ ), job fit with PC use ( $B = 0.209$ ,  $t = 2.648$ ,  $p < 0.05$ ) and long-term consequence of PC use ( $B = 0.175$ ,  $t = 2.245$ ,  $p < 0.05$ ) are equal to zero. Thus, the result demonstrates that there is a significant contribution of the all five variables on E-Marketing adoption of Iranian distribution firms. Moreover, multicollinearity for all variables was observed at an acceptable level. Table 9.14 shows that the column tolerance shows average value is between 0.510 and 0.803, whilst VIF value ranges from 1.245 to 1.960. The minimal result illustrates that there is no multicollinearity in the model, which unlike shows a good regression model (Pallant, 2016, p. 151). The result shows the strongest predictor to E-Marketing adoption of Iranian distribution firms is job-fit with PC use ( $B = 0.209$ ), followed by normative social influences ( $B = 0.187$ ), long-term consequences of PC use ( $B = 0.175$ ), Perceived ease of use ( $B = 0.157$ ) and owner/manager support ( $B = -0.130$ ). Table 9.15 depicts the result of hypotheses regarding the relationship of factors related to individual context and E-Marketing adoption. Based on the previous discussion, all the hypotheses are accepted.

**Table 9.15:** Outcomes of the Hypotheses Test in Model 2

| Hypotheses |   | Results         |
|------------|---|-----------------|
| H2A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the normative social influences.              | <b>Accepted</b> |
| H2B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the owner/manager support.                    | <b>Accepted</b> |
| H2C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing perceived ease of use.            | <b>Accepted</b> |
| H2D        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Job fit with PC use.                      | <b>Accepted</b> |
| H2E        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the consequences of the long-terms of PC use. | <b>Accepted</b> |

### 9.3.3 Model 3: Organisational Factors Influencing the E-Marketing Adoption of Iranian Distribution Firms

Within Model 3, the study investigated the impacts of organisational factors on E-Marketing adoption of Iranian distribution firms. The variables included in model 3 are Organisation's Culture, Organisation E-Readiness, Receptivity Toward Change, Marketing Capabilities of the Organisation, The Degree of Decentralisation, Degree of Formalisation, Employees' IT Knowledge and Management IT Knowledge. The framework of statistical analysis within Model 3 is demonstrated in the following Figure 9.6.

Based on the framework made in Model 3, this research designed hypotheses to test the impacts of organisational related factors on the E-Marketing adoption of Iranian distribution firms. Table 9.16 displays the hypotheses within Model 3.

**Table 9.16:** Hypotheses Related to Impacts of Organisational Factors on E-Marketing Adoption by Iranian Distribution Firms

| Hypotheses |   |
|------------|---|
| H3A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the employees' IT knowledge.                        |
| H3B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Management's IT Knowledge.                      |
| H3C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on organisation's Culture.                             |
| H3D        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the intensity of e-readiness of the organisation.   |
| H3E        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on having receptivity toward change by new technology. |
| H3F        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on marketing capabilities of the organisation.         |
| H3G        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on degree of formalisation of the organisation.        |
| H3H        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the degree of decentralisation.                     |

These eight hypotheses were tested through multiple regression analysis as drawn in the following section.

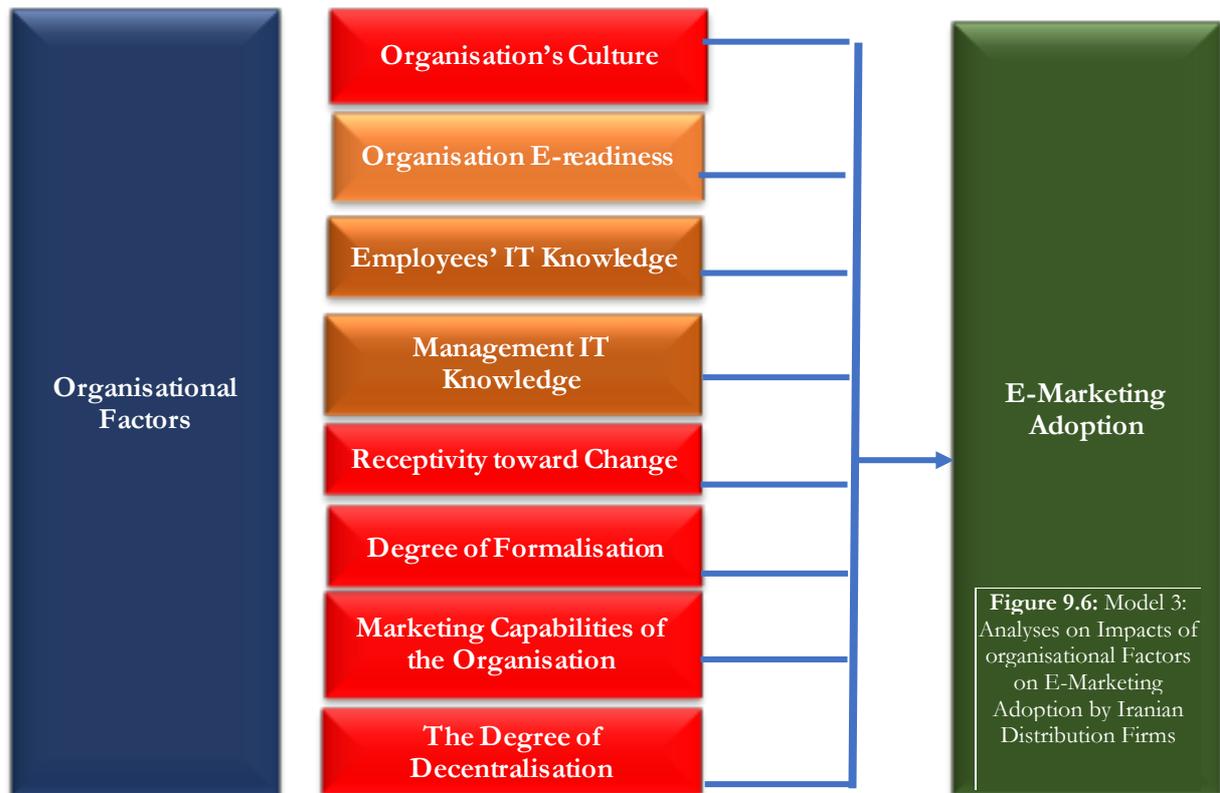


Figure 9.6: Model 3: Analyses on Impacts of organisational Factors on E-Marketing Adoption by Iranian Distribution Firms

### 9.3.3.1 Hypotheses Testing Results

To conduct the hypotheses test in Model 3, this research determined an appropriate model for the multiple regression. The following equation demonstrates Model 3:

$$\text{E-Marketing Adoption} = \text{Constant} + \beta_1 \text{ Employees' IT Knowledge (H3A)} + \beta_2 \text{ Management IT Knowledge (H3B)} + \beta_3 \text{ Organisation's Culture (H3C)} + \beta_4 \text{ The Intensity of Organisation E-readiness (H3D)} + \beta_5 \text{ Receptivity toward Change (H3E)} + \beta_6 \text{ Marketing Capabilities of the Organisation (H3F)} + \beta_7 \text{ the degree of decentralisation (H3G)} + \beta_8 \text{ The Degree of Formalisation (H3H)} + \epsilon$$

The research found the variance of the dependent variable (E-Marketing adoption) is explained by the model (employees' IT knowledge, management IT knowledge, organisation's culture, organisation e-readiness, receptivity toward change, marketing capabilities of the organisation, the degree of decentralisation and the degree of formalisation) by 13% ( $R = 0.402$   $R^2 = 0.161$ , Adjusted  $R^2 = 0.131$ ). Table 9.17 shows the result of model summary regarding the hypotheses test related to the impacts of organisational factors on E-Marketing adoption.

**Table 9.17: Model<sup>b</sup> Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .402 <sup>a</sup> | .161     | .131              | 3.20745 <sup>a</sup>       |

**a. Predictors (Constant):** Employees' IT Knowledge, Management IT Knowledge, Organisation's Culture, Organisation E-Readiness, Receptivity Toward Change, Marketing Capabilities of The Organisation, the degree of decentralisation and The Degree of Formalisation

**b. Dependent Variable:** E-Marketing Adoption

To measure the statistical significance of the result, the study tested the null hypothesis that there is no linear relationship between dependent variable (E-Marketing adoption) and independent variables related to organisational factors. The process was conducted by using analysis of variance ANOVA. As can be seen in Table 9.18, the result of ANOVA analysis displays a statistical significance contribution of the organisational related variables on E-Marketing adoption by Iranian distribution firms ( $F= 5.340, P< 0.001$ ).

**Table 9.18: Summary of ANOVA<sup>b</sup> Results**

| Model |            | Sum of Squares | df  | Mean Square | F     | Sig.              |
|-------|------------|----------------|-----|-------------|-------|-------------------|
| 1     | Regression | 439.483        | 8   | 54.935      | 5.340 | .000 <sup>a</sup> |
|       | Residual   | 2283.877       | 222 | 10.288      |       |                   |
|       | Total      | 2723.359       | 230 |             |       |                   |

**a. Predictors (Constant):** Employees' IT Knowledge, Management IT Knowledge, Organisation's Culture, Organisation E-Readiness, Receptivity Toward Change, Marketing Capabilities of The Organisation, the degree of decentralisation and The Degree of Formalisation

**b. Dependent Variable:** E-Marketing Adoption

For partial regression coefficient, the research conducted null hypotheses test to find out which of the variables involved in model 3 (variables related to organisational context) have contribution for the prediction of the dependent variable (E-Marketing adoption). T-statistics and its observed significance level were observed in the regression coefficients table. The results are illustrated in the Table 9.19.

**Table 9.19:** Result of Regression Coefficients <sup>a</sup>

| Model 1 |  | Unstandardized Coefficients |            | Standardized Coefficients | t-value | Sig.        | Collinearity Statistics |       |
|---------|--|-----------------------------|------------|---------------------------|---------|-------------|-------------------------|-------|
|         |  | B                           | Std. Error | Beta                      |         |             | Tolerance               | VIF   |
| 1       | (Constant)                                 | 19.929                      | 1.613      |                           | 12.353  | .000        |                         |       |
|         | Employees IT knowledge                     | .064                        | .074       | .075                      | .858    | .392        | .494                    | 2.023 |
|         | Management IT knowledge                    | .257                        | 0.89       | 0.238                     | 2.882   | <b>.004</b> | .552                    | 1.812 |
|         | Organisation's culture                     | -.031                       | .089       | -.032                     | -.348   | .729        | .442                    | 2.261 |
|         | Organisation e-readiness                   | .020                        | .050       | .038                      | .406    | .685        | .440                    | 2.273 |
|         | Receptivity toward change                  | .084                        | .085       | .088                      | .986    | .325        | .476                    | 2.099 |
|         | Marketing Capabilities of the Organisation | .175                        | .099       | .142                      | 1.773   | <b>.048</b> | .585                    | 1.710 |
|         | Degree of Formalisation                    | .140                        | .068       | .138                      | 2.041   | <b>.042</b> | .822                    | 1.217 |
|         | Degree of Decentralisation                 | .188                        | .071       | .226                      | 2.651   | <b>.009</b> | .521                    | 1.918 |

**a. Predictors (Constant):** Employees' IT Knowledge, Management IT Knowledge, Organisation's Culture, Organisation E-Readiness, Receptivity Toward Change, Marketing Capabilities of The Organisation, the degree of decentralisation and The Degree of Formalisation **b. Dependent Variable:** E-Marketing Adoption

Table 9.19 demonstrates that the researcher can safely reject the null hypotheses that the coefficient for Management IT knowledge ( $B= 0.238$ ,  $t= 2.882$ ,  $p< 0.05$ ), Marketing capabilities of the organisation ( $B= 0.142$ ,  $t= 1.773$ ,  $p< 0.05$ ), Degree of formalisation ( $B= 0.138$ ,  $t= 2.041$ ,  $p< 0.05$ ) and the degree of decentralisation ( $B= 0.226$ ,  $t= 2.651$ ,  $p< 0.05$ ) are equal to zero. Therefore, the result indicates that there is a significant contribution of the variables on E-Marketing adoption of Iranian distribution firms. Moreover, multicollinearity for all variables was observed at an acceptable level. As can be seen in Table 9.19 the column related to tolerance demonstrates average value is between 0.440 and 0.822, whilst VIF value varying from 1.217 to 2.273. The least result of VIF value portrays that there is no multicollinearity in the Model 3, which unlike resulting to a good regression model (Pallant, 2016, p. 151).

On the other hand, the researcher accepted the null hypotheses on the other four variables including employees' IT knowledge ( $B= 0.075$ ,  $t= 0.858$ ,  $p> 0.05$ ), organisation e-readiness ( $B= -0.032$ ,  $t= -0.348$ ,  $p> 0.05$ ), organisation's culture ( $B= 0.038$ ,  $t= 0.406$ ,  $p> 0.05$ ) and receptivity toward change ( $B= 0.088$ ,  $t= 0.986$ ,  $p> 0.05$ ). Subsequently, these variables do not contribute significantly to the E-Marketing adoption by Iranian distribution firms. The result indicates the strongest predictor of E-Marketing adoption of Iranian distribution firms related to organisational factors is management IT knowledge ( $B= 0.238$ ), followed by the degree of decentralisation ( $B= 0.226$ ), marketing capabilities of the organisation ( $B= 0.142$ ) and degree

of formalisation ( $B= 0.138$ ). Table 9.20 presents the result of hypotheses regarding the relationship of factors related organisational context and E-Marketing adoption.

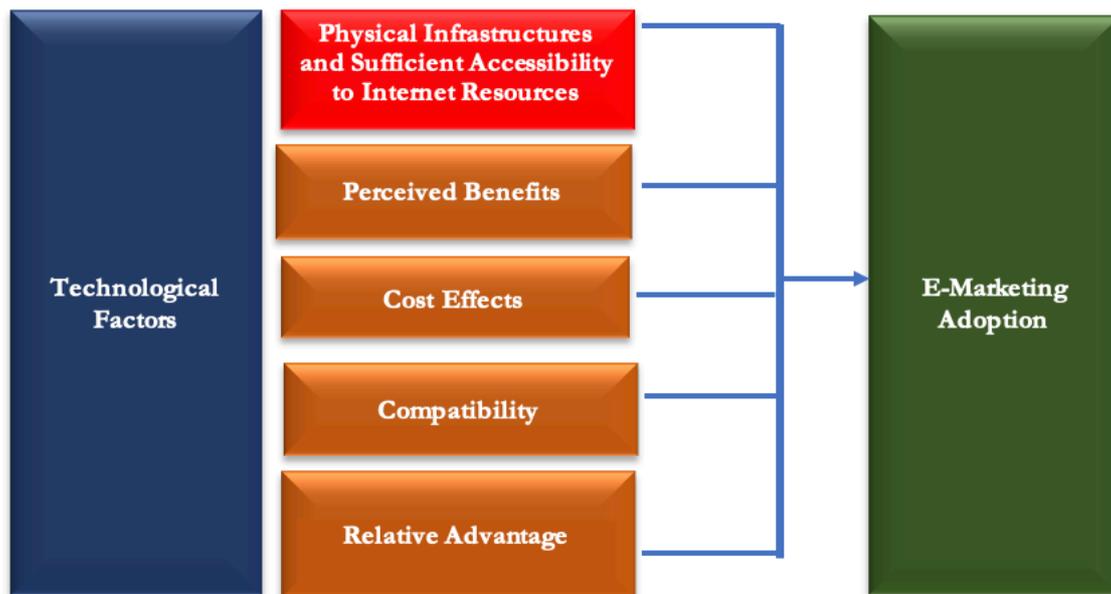
**Table 9.20:** Outcomes of the Hypotheses Test in Model 3

| <b>Hypotheses</b> |   | <b>Results</b>  |
|-------------------|---|-----------------|
| H3A               | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the employees' IT knowledge.                        | <b>Rejected</b> |
| H3B               | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Management's IT Knowledge.                      | <b>Accepted</b> |
| H3C               | Adoption of E-Marketing by Iranian Distribution Firms is dependent on organisation's Culture.                             | <b>Rejected</b> |
| H3D               | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the intensity of e-readiness of the organisation.   | <b>Rejected</b> |
| H3E               | Adoption of E-Marketing by Iranian Distribution Firms is dependent on having receptivity toward change by new technology. | <b>Rejected</b> |
| H3F               | Adoption of E-Marketing by Iranian Distribution Firms is dependent on marketing capabilities of the organisation.         | <b>Accepted</b> |
| H3G               | Adoption of E-Marketing by Iranian Distribution Firms is dependent on degree of formalisation of the organisation.        | <b>Accepted</b> |
| H3H               | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the degree of decentralisation.                     | <b>Accepted</b> |

Although the hypotheses for employees' IT knowledge, as well as, organisation's culture, organisation e-readiness and receptivity toward change are rejected, this research conducted a linear regression analysis on each factor to support these findings. Furthermore, the linear regression test was conducted to show the importance of each independent variables to the dependent variable (E-Marketing adoption). Remarkably, the linear regression result demonstrates all the independent variables (employees' IT knowledge, organisation's culture, organisation e-readiness and receptivity toward change) have a significant contribution to E-Marketing adoption of Iranian distribution firms. The results of linear regression present that employees' IT knowledge has a significant contribution at the level of  $P < 0.001$  ( $B= 0.236$ ,  $t= 3.679$ ), organisation's culture has a significant contribution at the level of  $P < 0.001$  ( $B= 0.233$ ,  $t= 3.630$ ) whereas organisation's E-readiness and receptivity toward change have significant contribution at the level of  $P < 0.05$  ( $B= 0.208$ ,  $t= 3.212$ ) and  $P < 0.05$  ( $B= 0.219$ ,  $t= 3.401$ ) respectively. The result suggests that the independent variables (employees' IT knowledge, organisation's culture, organisation's E-readiness, and receptivity toward change,) were overshadowed when entered with other four independent variables (management's IT knowledge, marketing capabilities of the organisation, the degree of formalisation and the degree of decentralisation) in a single block in multiple regression.

### 9.3.4 Model 4: Technological Attributes Influencing the E-Marketing Adoption of Iranian Distribution Firms

In the fourth Model, the research investigated the impacts of technological factors on E-Marketing adoption of Iranian distribution firms. The variables contained within this stage are the sufficient accessibility to internet resources; cost effects; perceived benefits; compatibility and relative advantage. The framework of statistical analysis within Model 4 has shown in Figure 9.7.



**Figure 9.7:** Model 4: Analyses on Impacts of Technological Attributes on E-Marketing Adoption by Iranian Distribution Firms

**Source:** The researcher

Based on the framework developed in Model 4, this research constructed hypotheses for testing the impacts of technological related factors on E-Marketing adoption by Iranian distribution firms (refer to table 9.21).

**Table 9.21:** Hypotheses Related to Impacts of Technological Attributes on E-Marketing Adoption by Iranian Distribution Firms

| Hypotheses |  |
|------------|--|
| H4A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Physical Infrastructures and Sufficient Accessibility to Internet Resources. |
| H4B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on cost effects through the adoption.   |
| H4C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Perceived Benefits of ICT.   |
| H4D        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing Perceived Compatibility.   |
| H4E        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing perceived relative advantage.  |

These hypotheses were tested through multiple regression analysis as explained in the Following section.

### 9.3.4.1 Hypotheses Testing Results

To conduct the hypothesis test for Model 4, this research developed an appropriate model for the multiple regression test. Consequently, the following equation shows Model 4:

$$\text{E-Marketing adoption} = \text{Constant} + \beta_1 \text{ Physical Infrastructures and Sufficient Accessibility to Internet Resources (H4A)} + \beta_2 \text{ cost effects (H4B)} + \beta_3 \text{ the Perceived Benefits of ICT (H4C)} + \beta_4 \text{ Perceived Compatibility (H4D)} + \beta_5 \text{ perceived relative advantage (H4E)} + \varepsilon$$

The research found out the observed variance for dependent variable (E-Marketing adoption) is described by the model (the physical infrastructures and sufficient accessibility to internet resources, cost effects, the perceived benefits, perceived compatibility, and perceived relative advantage) by 18% (R= 0.439, R<sup>2</sup>= 0.193, Adjusted R<sup>2</sup>= 0.175). Table 9.22 presents the model summary regarding the hypotheses test related to the impacts of technological factors on E-Marketing adoption by Iranian distribution firms.

**Table 9.22:** Model<sup>b</sup> Summary

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .439 <sup>a</sup> | .193     | .175              | 3.12556                    |

**a. Predictors (Constant):** The Physical Infrastructures and Sufficient Accessibility to Internet Resources, Cost Effects, the Perceived Benefits of ICT, Perceived Compatibility and Perceived Relative Advantage

**b. Dependent Variable:** E-Marketing Adoption

To measure the statistical significance of the result, the research tested the null hypothesis that there is no linear relationship between dependent variable (E-Marketing adoption) and independent variables related to technological factors. The process was conducted by using analysis of variance ANOVA. As can be seen in Table 9.23, the result of ANOVA analysis displays a statistical significance contribution of the technological related variables on E-Marketing adoption by Iranian distribution firms ( $F= 10.755$ ,  $P< 0.001$ ).

**Table 9.23:** Summary of ANOVA<sup>b</sup> Results

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1     | Regression | 525.311        | 5   | 105.062     | 10.755 | .000 <sup>a</sup> |
|       | Residual   | 2198.048       | 225 | 9.769       |        |                   |
|       | Total      | 2723.359       | 230 |             |        |                   |

**a. Predictors (Constant):** The Sufficient Accessibility to Internet Resources, Cost Effects, the Perceived Benefits of ICT, Perceived Compatibility and Perceived Relative Advantage

**b. Dependent Variable:** E-Marketing Adoption

For partial regression coefficient, the research conducted null hypotheses test to find out which of the variables involved in model 4 (variables related to technological attributes) have contribution for the prediction of the dependent variable (E-Marketing adoption). T-statistics and its observed significance level were observed in the regression coefficients table. The results are presents in the Table 9.24.

**Table 9.24:** Result of Regression Coefficients <sup>a</sup>

| Model |   | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Collinearity Statistics |       |
|-------|---|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|       |   | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1     | (Constant)  | 19.239                      | 1.511      |                           | 12.733 | .000 |                         |       |
|       | The Physical Infrastructures and Sufficient Accessibility to Internet Resources | .126                        | .043       | .235                      | 2.906  | .004 | .548                    | 1.824 |
|       | Cost Effects  | .170                        | .076       | .157                      | 2.245  | .026 | .732                    | 1.366 |
|       | The Perceived Benefits of ICT   | .091                        | .071       | .109                      | 1.289  | .199 | .499                    | 2.002 |
|       | Perceived Compatibility   | .250                        | .091       | .206                      | 2.758  | .006 | .644                    | 1.552 |
|       | Perceived Relative Advantage  | .031                        | .039       | .065                      | .795   | .427 | .534                    | 1.871 |

**a. Predictors (Constant):** The Physical Infrastructures and Sufficient Accessibility to Internet Resources, Cost Effects, the Perceived Benefits of ICT, Perceived Compatibility and Perceived Relative Advantage

**b. Dependent Variable:** E-Marketing Adoption

Table 9.24 reveals that the researcher can safely reject the null hypotheses that the coefficient for the physical infrastructures and sufficient accessibility to internet resources ( $B= 0.235$ ,  $t=$

2.906,  $p < 0.05$ ), cost effects ( $B = 0.157$ ,  $t = 2.245$ ,  $p < 0.05$ ) and perceived compatibility ( $B = 0.206$ ,  $t = 2.758$ ,  $p < 0.05$ ) are equal to zero. Therefore, the result indicates that there is a significant contribution of the variables on E-Marketing adoption of Iranian distribution firms. Moreover, the result supported by multicollinearity for all variables were observed at an acceptable level. As can be seen in Table 9.24 the column related to tolerance demonstrates average value is between 0.499 and 0.732, whilst VIF value varying from 1.366 to 2.002 The least result of VIF value portrays that there is no multicollinearity in the Model 4, which unlike resulting to a good regression model (Pallant, 2016, p. 151).

On the other hand, the researcher accepted the null hypotheses on the other four variables including the perceived benefits of ICT ( $B = 0.109$ ,  $t = 1.289$ ,  $p > 0.05$ ) and perceived relative advantage ( $B = 0.065$ ,  $t = 0.795$ ,  $p > 0.05$ ). Consequently, these variables do not contribute significantly to the E-Marketing adoption by Iranian distribution firms. The result indicates the strongest predictor of E-Marketing adoption of Iranian distribution firms related to technological factors is the physical infrastructures and sufficient accessibility to internet resources ( $B = 0.235$ ), followed by perceived compatibility ( $B = 0.206$ ), cost effects ( $B = 0.157$ ), the perceived benefits of ICT ( $B = 0.109$ ), and perceived relative advantage ( $B = 0.065$ ). Table 9.25 presents the result of hypotheses regarding the relationship of factors related technological attributes and E-Marketing adoption.

**Table 9.25:** Outcomes of the Hypotheses Test in Model 4

| Hypotheses |  | Results         |
|------------|--|-----------------|
| H4A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Physical Infrastructures and Sufficient Accessibility to Internet Resources. | <b>Accepted</b> |
| H4B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on cost effects through the adoption.   | <b>Accepted</b> |
| H4C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Perceived Benefits of ICT.   | <b>Rejected</b> |
| H4D        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing Perceived Compatibility.   | <b>Accepted</b> |
| H4E        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing perceived relative advantage.  | <b>Rejected</b> |

Although the hypotheses for perceived benefits of ICT and perceived relative advantage were rejected, this research conducted a linear regression analysis on each factor to support these findings. Furthermore, the linear regression test was conducted to show the importance of each

independent variables to the dependent variable (E-Marketing adoption). Remarkably, the linear regression result demonstrates all the independent variables (perceived benefits of ICT and perceived relative advantage) have a significant contribution to E-Marketing adoption of Iranian distribution firms. The results of linear regression present that perceived benefits has a significant contribution at the level of  $P < 0.001$  ( $B = 0.315$ ,  $t = 5.028$ ) and perceived relative advantage  $P < 0.001$  ( $B = 0.317$ ,  $5.055$ ). The result suggests that the independent variables (perceived benefits of ICT and perceived relative advantage) were over-shadowed when entered with other three independent variables (the physical infrastructures and sufficient accessibility to internet resources, cost effects and the perceived compatibility) when put into a single block in multiple regression.

### **9.3.5 Model 5: Examining the Direct and Indirect Relationships among the Environmental, Individual, Organisational and Technological Related Factors and E-Marketing Adoption**

The four previous models of analysis formed different results. The first model examined the relationship between the environmental attributes and E-Marketing adoption by Iranian distribution firms. The results explained that two out of three predictors related to environmental factors contributed significantly to E-Marketing adoption by Iranian distribution firms. Similarly, within model two, analysis, all the five predictors related to individual factors have positive significant contribution to E-Marketing adoption by Iranian distribution firms. Within the third model, the four out of eight predictors related to organisational factors have positive significant contribution to E-Marketing adoption by Iranian distribution firms and finally in Model 4, three out of five predictors related to technological factors have significant impact on E-Marketing adoption by Iranian distribution firms.

On the other hand, the four frameworks display different results regarding the explanation of observed variation on E-Marketing adoption by Iranian distribution firms as can be seen in the value of the adjusted  $R^2$  that have been generated from these four models. Table 9.26 shows that the second model (individual factors) is the highest in explanation with an adjusted  $R^2 = 0.274$  and the smallest standard error of the estimate (2.93178), followed by the fourth framework (technological factors) with an adjusted  $R^2 = 0.175$  and standard error of the estimate (3.12556), consequently the third framework (organisational factors) with an adjusted  $R^2 = 0.131$  and standard error of estimate (3.20745). The first framework (environmental

attributes) was the lowest in explanation with adjusted R<sup>2</sup>= 0.077 with the standard error of estimate (3.32712).

**Table 9.26:** Adjusted R Square for the First Four Frameworks

| Model | R                  | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 1     | 0.278 <sup>a</sup> | 0.077    | 0.065             | 3.32712                    |
| 2     | 0.538 <sup>a</sup> | 0.290    | 0.274             | 2.93178                    |
| 3     | 0.402 <sup>a</sup> | 0.161    | 0.131             | 3.20745 <sup>a</sup>       |
| 4     | 0.439 <sup>a</sup> | 0.193    | 0.175             | 3.12556                    |

These results support the research’s argument that the E-Marketing adoption of Iranian distribution firms can be understood by integrating several perspectives including environmental, individual, organisational and technological factors that will lead to development of the ability of the models to predict the adoption of E-Marketing by distribution firms. Moreover, the four models generated different factors from various perspectives internal (individual factors and organisational factors) and external factors (environmental attributes and technological attributes) influencing E-Marketing adoption of Iranian distribution firms. This finding is consistent with a recommendation by Shemi (2012) who offers that a more inclusive framework requires to be undertaken by future scholars to understand firms’ E Marketing adoption behaviour. Table 9.27 shows the factors influencing upon the E-Marketing adoption of Iranian distribution firms resulted from the first four stages.

This study investigated 21 factors that affect adoption of E-Marketing by Iranian distribution firms and classified them into two themes. External factors with two categories of technological innovation perspective and environmental factors based on the internal characteristics of the firm. Internal factors with two categories as organisational factors that influence the E-Marketing adoption by features of the organisation itself and individual factors. This study implies that the utilisation of new technologies such as E-Marketing by a knowledgeable person (owner/manager or the employee) would be influenced by aspects such as individual’s affect toward using, social norms in the firm concerning the adoption, habits related with usage, the individual’s expected consequences of using, and facilitating conditions in the environment conducive to use. Individual attributes are important as the final decision for adoption of E-Marketing is mainly determined by individual related factors such as individual’s innovativeness, support, their involvement in the adoption process. In most firms in Iran, any strategic decision is highly dependent on owner, manager or occasionally employee and thus

the decision on adoption process depends extensively on the acceptance of E-Marketing technology by the owner of business (Nguyen and Waring, 2013).

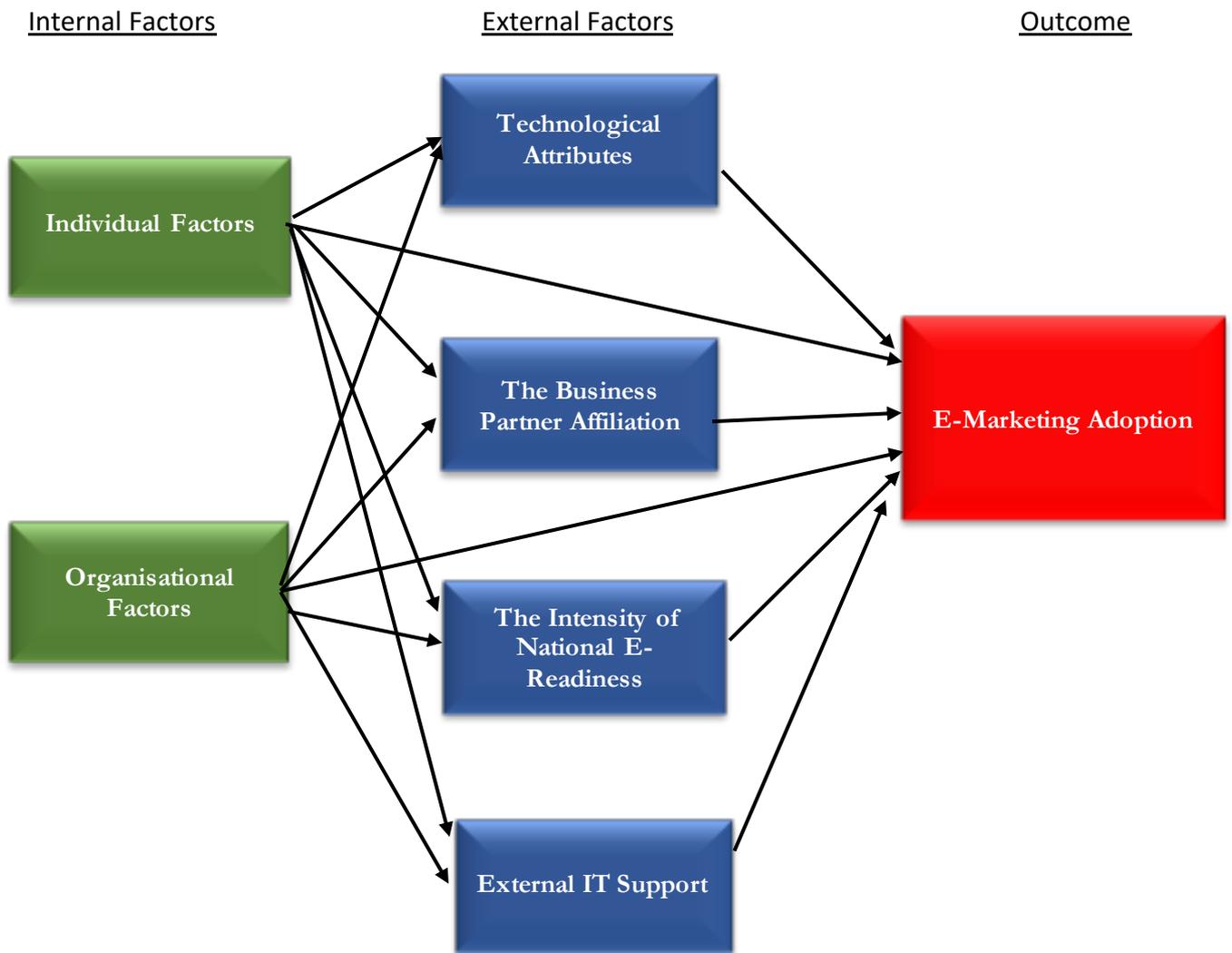
**Table 9.27:** Factors Influencing Iranian Distribution Firms' E-Marketing Adoption in the First Four Stages

|                 | Framework                       | Factors  | Standardised Coefficients Beta |
|-----------------|---------------------------------|--|--------------------------------|
| <b>Internal</b> | <b>Individual Factors</b>       | Normative social influences  | 0.187                          |
|                 |                                 | Owner/Manager support(Involvement)   | 0.130                          |
|                 |                                 | Perceived Ease of use  | 0.157                          |
|                 |                                 | Job fit with PC use  | 0.209                          |
|                 |                                 | Long-term consequence of PC use  | 0.175                          |
|                 | <b>Organisational Factors</b>   | Employees IT knowledge   | 0.236                          |
|                 |                                 | Management IT knowledge  | 0.238                          |
|                 |                                 | Organisation's culture   | 0.233                          |
|                 |                                 | Organisation e-readiness   | 0.208                          |
|                 |                                 | Receptivity toward change  | 0.219                          |
|                 |                                 | Marketing Capabilities of the Organisation                                       | 0.142                          |
|                 |                                 | Degree of Formalisation  | 0.138                          |
|                 |                                 | The Degree of Decentralisation   | 0.226                          |
| <b>External</b> | <b>Environmental Attributes</b> | The Business Partner Affiliation   | 0.199                          |
|                 |                                 | The Intensity of National E- Readiness   | 0.174                          |
|                 |                                 | External IT Support  | 0.158                          |
|                 | <b>Technological Factors</b>    | The Physical Infrastructures and Sufficient Accessibility to Internet Resources. | 0.235                          |
|                 |                                 | Cost Effects   | 0.157                          |
|                 |                                 | The Perceived Benefits of ICT  | 0.315                          |
|                 |                                 | Perceived Compatibility  | 0.206                          |
|                 |                                 | Perceived Relative Advantage   | 0.317                          |

Moreover, Marcati, Guido, and Peluso (2008) state that adoption of E-Marketing among firms is not only dependent on the external factors but also dependent on the internal factor related to the character of individuals toward adoption as well as the organisations' characteristics. Thus, in this study such factors are presumed as significant factors in adoption of E-Marketing by the Iranian distribution firms. Although the prior statistical analyses of four frameworks demonstrate that the majority of factors investigated in this research play important role to predict the adoption of E-Marketing by Iranian distribution firms, yet there is still a need to understand how these factors integrate with each other on influencing the E-Marketing adoption of Iranian distribution firms. As the four previous statistical tests were conducted independently in different stages, this research discusses that understanding of how these factors integrate with each other will lead through a deeper understanding of the phenomenon of examination within this research.

Ein-Dor and Segev (1978) classified the factors into three groups as unmanageable; partly manageable; and manageable. The adoption of new technologies such as E-Marketing by organisation is identified from two forms of organisational decisions. The decision made by an individual within an organisation, and the decision made by an organisation. Each type has its own factors that influence the direction of that decision (Frambac and Schillewaert, 2002). These factors are controlled and can be monitored; however, environmental, and technological factors are considered as external factors that cannot be fully controlled by the firm. This research furthermore argues that internal related factors can only give good impacts to E-Marketing adoption if facilitated through good external factors circumstances. Furthermore, while all the factors evidenced to have a significant contribution to the E-Marketing adoption of Iranian distribution firms, yet not all the proposed dimensions were found significant when interacted with other variables. Since this research is based on an amalgamation of six theories of new technology to investigate the impact of the extended model on E-Marketing adoption by Iranian distribution firms, it is suggested further investigation be undertaken on the integration of the factors in impacting Iranian distribution firms' E-Marketing adoption.

Moreover, several researchers found that the differences between behaviors of different organisations during the adoption process could be fully understand only if factors that multiple dimensions of effects have are taken into consideration (Shemi, 2013; Rahayu, 2015; and Rabie, 2013). Hence, the study conducted further investigation of the factors which in turn, expand the model that has been adopted by (Azam and Quaddus, 2013; and Al-Fahim *et al.*, 2016) by adding additional variables from model of PC utilisation and the perceived e-readiness model. Based on the above justification, this study has a good reason to undertake and propose a multiple dimension research framework in an attempt for examination of direct and indirect relationships of all concerned factors influencing Iranian distribution firms E-Marketing adoption. Therefore, Model 5 was developed for understanding the relationships of internal and external factors influencing the E-Marketing adoption of Iranian distribution. This model provides a holistic understanding of the E-Marketing adoption decision-making process. Model 5 is the framework of statistical examination, which illustrated in Figure 9.8.



**Figure 9.8:** Relationships among Organisational Factors, Individual Factors, Technological Attributes, Intensity of National E-Readiness, The Business Partner Affiliation, and External IT Support with Firm's E-Marketing Adoption

Based on the framework analysis illustrated in Model 5 on figure 9.8, this research developed hypotheses for investigating the direct and indirect relationships of factors in the research and the role of external related factors (Technological attributes; The Business Partner Affiliation; Intensity of national e-readiness and External IT) as mediating factors to the relationship between internal related factors and E-Marketing adoption by Iranian distribution firms. The hypotheses are shown in the following Table 9.28.

**Table 9.28:** Hypotheses Related to Direct and Indirect Relationships of Organisational Factors, Individual Factors, Technological Attributes, Intensity of National E-Readiness, The Business Partner Affiliation, External IT Support with Firm's E-Marketing Adoption

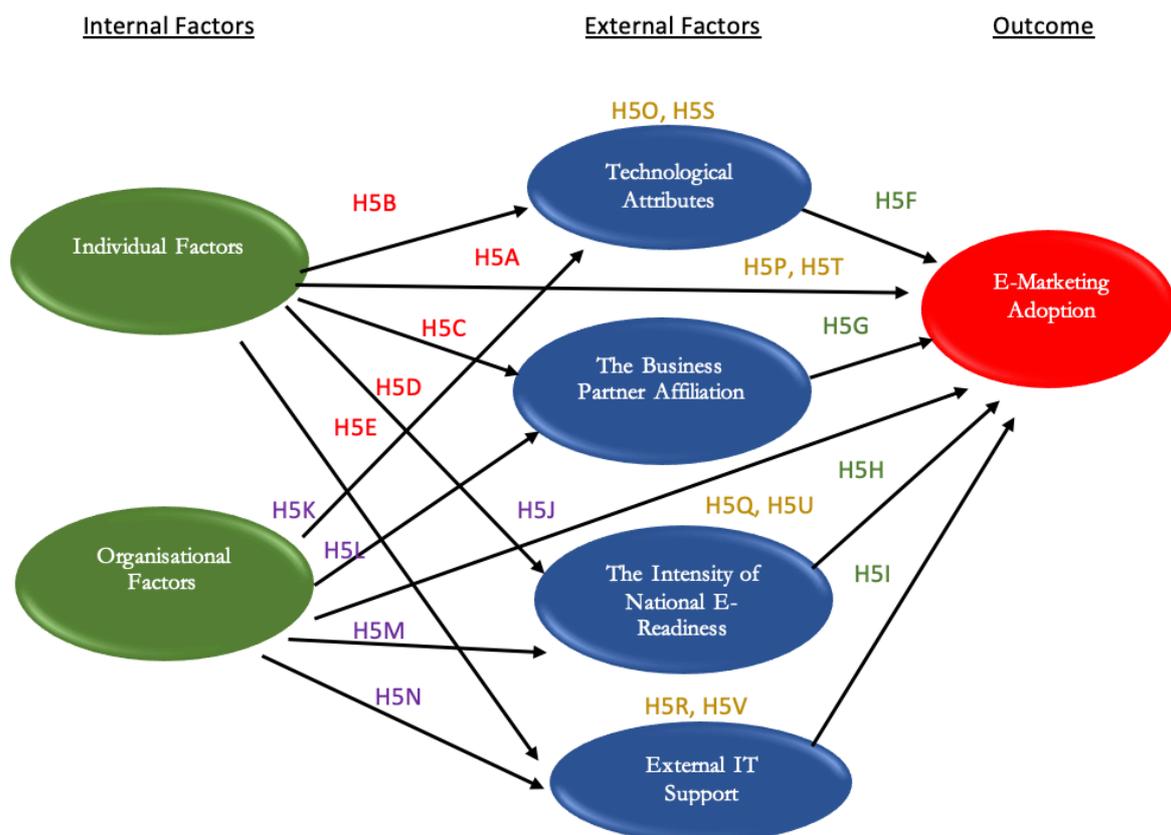
| <b>Hypotheses</b> |  |
|-------------------|--|
| H5A               | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on e-marketing adoption of Iranian distribution firms.   |
| H5B               | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on technological attributes by Iranian distribution firms.   |
| H5C               | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on The Business Partner Affiliation.   |
| H5D               | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on the intensity of national e-readiness.  |
| H5E               | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on external IT support.  |
| H5F               | Adopting E-Marketing by Iranian distribution firms is dependent on Technological attributes.   |
| H5G               | Adopting E-Marketing by Iranian distribution firms is dependent on The Business Partner Affiliation.   |
| H5H               | Adopting E-Marketing by Iranian distribution firms is dependent on the intensity of national e-readiness.  |
| H5I               | Adopting E-Marketing by Iranian distribution firms is dependent on external IT support.  |
| H5J               | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on E-Marketing adoption of Iranian distribution firms.     |
| H5K               | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on technological attributes by Iranian distribution firms. |
| H5L               | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on The Business Partner Affiliation.                       |
| H5M               | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation the degree of decentralisation has a positive impact on the intensity of national e-readiness.                   |
| H5N               | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on external IT support.                                    |
| H5O               | Technological attributes mediate the relationship between organisational factors and E-Marketing adoption.   |
| H5P               | The Business Partner Affiliation mediates the relationship between organisational factors and E-Marketing adoption.  |
| H5Q               | The intensity of national e-readiness mediates the relationship between organisational factors and E-Marketing adoption.   |
| H5R               | External IT support mediates the relationship between organisational factors and E-Marketing adoption.   |

To test the hypotheses developed in model 5 and outline the directed dependencies between all the variables, path analysis in structural equation modelling (SEM) was used for investigation of the direct, indirect relationships and mediator between the factors affecting Iranian distribution firms' E-Marketing adoption. SEM is often named as the second-generation technique of multivariate data analysis developed as an advanced method to overcome the limitations in the previous technique named as the Ordinary Least Square (OLS) regression specifically when dealing with latent variables and when multiple response items are taken in measuring the variable (Awang, 2014, P. 4; and Hair *et al.*,2014). SEM could entertain latent constructs with multiple indicators as well as the usual observed variables into the model concurrently, and more importantly, the inter-relationship among them are analysed simultaneously (Awang, 2014, P.2). Latent variables are known as unobserved variables that can be measured by multiple items in the questionnaire. In this research, the latent variables are organisational, technological, individual, and environmental attributes. These latent variables are observed by sub-scales like perceived ease of use, social normative influences, management/owner support, job fit with PC use and, long-term consequences of PC use.

SEM which is an advanced method in comparing with OLS can perform various statistical techniques such as: 1) establishing the confirmatory factor analysis known as (CFA); 2) running the multiple regression analyses concurrently; 3) running regressions that have multicollinearity problems; 4) examining the path analyses (SEM with no latent variables) that has multiple dependents ; 5) execution of correlation and covariance instantaneously in a model; and 6) investigating the inter-relationships between variables in a model. These statistical techniques are not available in OLS. Moreover, SEM allows the researcher to investigate the role of mediators and moderators within the model (Awang, 2014, P. 17). SEM consists of measurement model and structure equation modelling (SEM). Before running the structural equation modelling the study has to assess the measurement model to confirm the dimensionality, reliability and validity of the observed variables relative to each latent construct. This measurement going through a process called confirmatory factor analysis (CFA). This process has been suggested by various researcher in the field of new technology adoption such as e-marketing, e-commerce, and e-business (Hair *et al.*,2009, 2014 and Udo, Bagchi, and Kirs, 2010).

Structural equation modelling has been adopted in this study in Model 5, for the following purposes: 1) to achieve benefits from an advanced statistical analysis method such as CFA,

Path analysis; 2) to run a statistical test of inter-relationship amongst factors affecting E-Marketing adoption by Iranian distribution firms concurrently in model 5; 3) SEM is a confirmatory analysis method more than exploratory, thus this technique is consistent with the study's aim for confirming the hypothesised factors; and 4) SEM is comprised of measurement model (CFA) and structural equation model (path analysis). Thus, the correlations among exogenous variable and structural errors in endogenous variable are measured. Hence, CFA, correlation and regression analysis can be conducted at once in a model and can run the analysis of multiple dependent and independent variables concurrently in a model (indicated in Figure 9.9). The data were analysed through structural equation modelling using path analysis method on multiple variables by observing their relationships through linear causal instantaneously in one model (Awang, 2014, P. 22, and El-Gohary, 2009). The purpose of running path analysis is to investigate the direct and indirect relationship among all the variables based on knowledge and theoretical concepts (El-Gohary, 2009). Figure 9.9 shows the hypothesised variables tested within Model 5 by structural equation modelling.



**Figure 9.9:** The Hypothesised Relationship between the E-Marketing Adoption Variables

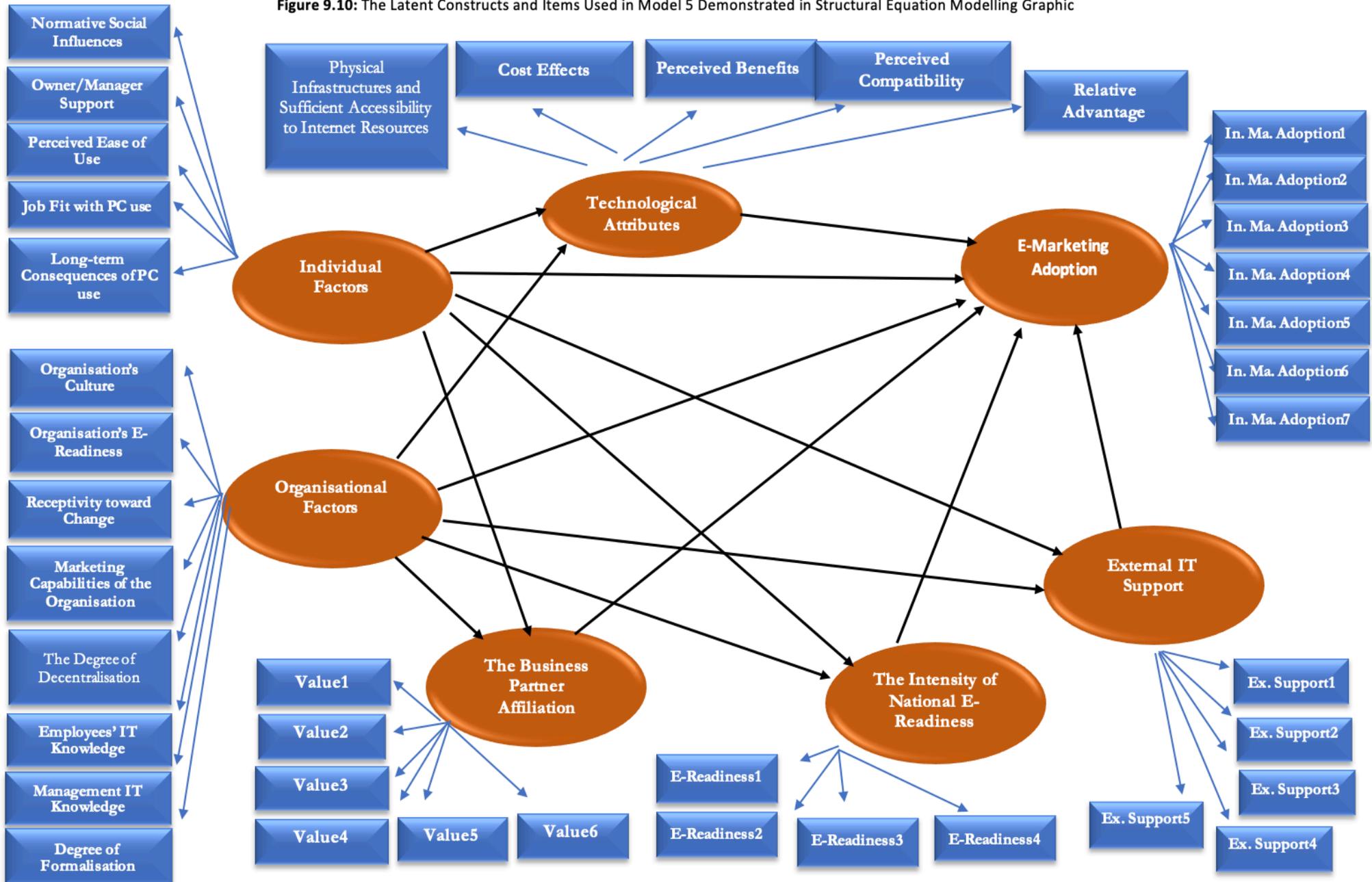
To test the hypotheses developed for model 5, this study adopted “analysis of moments structures” known as AMOS software version 24.0 which is one of the newest software

developed for structural equation modelling (SEM). The researcher could use AMOS graphic to develop and analyse the inter-relationships between the latent constructs (variables) efficiently and more importantly, equations of inter-relationships in a model are computed simultaneously. The advantage of SPSS AMOS for researchers could convert their theoretical framework directly into AMOS graphic for analysis and it is beneficial for researchers by creating path diagrams by drawing tools, instead of writing the equations or through entering commands.

Moreover, user friendliness and efficiency of the software lead the researchers through a fast completion of the analysis by fitting multiple models in a single analysis. After running confirmatory factor analysis, the inter-relationships of the factors were tested through structural equation modelling. There is no agreement among the scholars in terms of the population characteristics, the number of constructs employed in a model and on the minimum sample requirement in structural equation modelling. The minimum requirement of samples suggested by various researchers (Hair *et al.* 2009; and Awang, 2014, p. 24) depending on the model complexity and basic measurement model characteristics are explained as following: 1) five or less latent constructs that each latent construct has more than 3 items minimum sample required is (>100); 2) seven or less than seven latent constructs that each latent construct has more than 3 items minimum sample required is (>150); 3) seven or less latent constructs that some latent constructs have less than 3 items minimum sample required is (>300) and finally; 4) for more than seven latent constructs that some latent construct have less than 3 items minimum sample required is (>500).

Based on the minimum requirement of the samples explained above, this model has 6 latent constructs that each latent construct has more than three items. Therefore, 231 samples used in this research has met the minimum sample size requirement. There are seven formative latent constructs were adopted for testing the hypotheses in model 5 which include technological attributes, organisational factors, individual factors, external IT support, the intensity of national e-readiness, The Business Partner Affiliation and E-Marketing adoption. These latent constructs and their items used in model 5 are shown in figure 9.10. As can be seen in figure individual factors category is an independent latent construct measured using five variables, followed by another latent construct namely organisational factors measured using eight variables, technological factors measured using five variables, The Business Partner Affiliation measure using six items, the intensity of national e-readiness measured using four items and external IT support measured using five items

Figure 9.10: The Latent Constructs and Items Used in Model 5 Demonstrated in Structural Equation Modelling Graphic



For testing the hypotheses through structural equation modelling, version 24.0 of SPSS AMOS software was used to assess path coefficient value of each linear regression between the variables in model 5. This research implemented the structural equation modeling analysis based on prior findings by researchers in marketing (e.g., El-Gohary 2009; Azam and Quaddus, 2013; and Al-Fahim *et al.*, 2016). The next section presents the process of running the structural equation test in Model 5.

### **9.3.5.1 The Results of Hypotheses Testing**

According to Hair *et al* (2009), data analysis with SEM entails of two stages. These stages including 1) the measurement model assessment, which is the determination of convergent and discriminant validity, and 2) assessing the structural model to find the direction and strength of the relationships among the latent constructs. Thus, this study first conducted a measurement model to determine the relationships between the items and their latent constructs which in fact the researcher prior to test the developed hypotheses in structural equation modelling measured evaluated model 5 for unidimensionality, validity and reliability. Confirmatory factor analysis (CFA) was carried out then for the analysis of the measurement model. Thus, the researcher first observed the factor loading for each item following the fitness indexes for latent construct. A good measurement indicator must have the factor loading of 0.5 at least or rather 0.6 at the minimum. Hence construct reliability has to be 0.7 and each construct should have the average variance extracted equal or greater than 0.6. Thus, the cut-off point in this study chosen for the significant factor loading of 0.6. The items that have a low factor loading lead to a poor fitness indexes and this were removed from the measurement model. Once the researcher ran the CFA test, in the next step, the structural equation modelling was used to establish the inter-relationships between the latent constructs in model 5. In this research, all hypothesised factors were sits in a way to relate each other to be in the order of the designed theories. The analysis and its corresponding output are showed in the graphic figure.

### **9.3.5.2 Stage 1: The Measurement Model: Using Confirmatory Factor Analysis (CFA) for Testing the Goodness of Fit of the Model 5**

This study used Confirmatory Factor Analysis to confirm the fitness of Model 5 before testing the hypotheses through structural equation modelling through drawing AMOS graphic. Confirmatory factor analysis is the extension of exploratory factor analysis and is deployed to test if measures of the constructs and items are consistent with the researcher's understanding from the nature of factors (Azam and Quaddus, 2013, and El-Gohary, 2009). The purpose of

validating the goodness of fit in Model 5 is to check the latent constructs included in this research for their unidimensionality, reliability and validity prior to demonstrating their inter-relationships in structural equation modeling (SEM). In the other word, the aim of CFA is to test the fitness of the data prior to measurement model, which then can be used to measure how good the proposed model captured the covariance between the latent constructs and items, the redundant items in each of the latent constructs will then be removed. Prior to evaluation of the validity and reliability, the unidimensionality requires to be measured and consequently goodness of fit of the model 5 need to be evaluated.

### Unidimensionality

The measurement model, which is also known as path analysis, entails the relationships and inter-relationships among the exogenous and endogens constructs which is followed by assumption of unidimensionality. There is no exact cut-off point for an acceptance level of unidimensionality (El-Gohary, 2009). However, unidimensionality is reached to an acceptable level when the included items demonstrate an acceptable factor loading for the individual latent constructs. In this process, the items that did not fit the measurement model due to low level of factor loading were removed from Model 5. As mentioned earlier; the acceptance level of factor loading is 0.5 at least or rather 0.6 at the minimum, hence the cut-off point for this study assumed as 0.6 and all the items with the factor loading of less than 0.6 would remove and eliminate from the model. As the outcome of the unidimensionality test, factor loadings that were found in this research were ranged from 0.60 to 0.85 amongst the variables that described latent variables. Therefore, all the items included in Model 5 were described the latent variables in a good way that have been suggested by Azam and Quaddus (2013) the factor loading should be at minimum of not less than 0.5 or should not be less than 0.6 suggested by Awang (2014).

### Measurement of Construct Validity and Reliability

Before testing the hypotheses through structural equation modelling, it is essential to measure the reliability and validity. There are Two way of analysing the validity which is: i) convergent validity that is confirmed through valuation of average variance extracted (AVE), which should be 0.5 or higher than 0.5 suggested by Fornell and Larcker (1981). However, they recommend that value of 0.4 is acceptable if composite reliability is greater than 0.6; ii) Moreover, discriminant validity is confirmed through CFA or confirmatory factor analysis. To assess the construct validity and the reliability of the Measurement model, AMOS software version 24.0 applied.

## Validity

According to Pallant (2016), construct validity is a test in which results correlate with the results from other tests that are designed to measure the same construct and it shows how an instrument is capable of measuring the corresponding factors and latent constructs in a model. In this study, based on Anderson and Gerbing (1988), and Awang (2014) recommended convergent validity analysis measures, Awang (2014), and Bagozzi and Yi (1991) suggested CFA evaluation measures, and Gefen, Straub and Boudreau (2000), and Awang (2014) goodness of fit indicators suggested data to assess. Evaluation standards contains 1- the factor loadings of the indicator's respective fields are significant and greater than 0.5 at minimum; 2- The reliability of different dimensions is greater than 0.7; 3- Average Variance Extracted known as (AVE) which is to evaluate the convergent validity is 0.5 or higher for every construct suggested by Awang (2014). However, 0.4 is assumed as an acceptance level in this study. Since Fornell and Larcker (1981) suggested that if AVE is less than 0.5, but reliability is greater than 0.6, the convergent validity of that construct is still in acceptable level. The following formula is used for calculation of Average Variance Extracted as follows:

$$AVE = \frac{\sum K^2}{n}$$

Where K= Factor loading for each item.

n= The Number of items.

According to results of the convergent validity test, this research achieved to an acceptable average variance extracted as can be seen in table 2.29. Measurements of composite reliability (CR) are between 0.731 and 0.863, higher than the standard 0.6; measurements of Average Variance Extracted (AVE) are between 0.443 and 0.883, higher than the standard 0.5. organisational factors achieved to AVE value of less than 0.5 which is 0.443, however as mentioned earlier Fornell and Larcker (1981), and Malhotra and Birks (2004) suggested that AVE less than 0.5 is acceptable if CR be greater than 0.6 and also it is recommended in (El-Gohary, 2009) that composite reliability can be proven by CR alone. Therefore, the organisational factors met the requirement as the Composite Reliability value is 0.863 which resulted more than the acceptable value level higher than 0.6 (Awang, 2014; and Fornell and Larcker, 1981). Conform to the scholars' inspection standards on convergent validity of each measurement, all aspects of this study have convergent validity.

**Table 9.29:** Result of Composite Reliability (CR) and Average Variance Extracted (AVE)

| Latent Constructs                     | CR    | AVE   |
|---------------------------------------|-------|-------|
| E-Marketing Adoption                  | 0.784 | 0.522 |
| Individual Factors                    | 0.750 | 0.776 |
| Organisational Factors                | 0.863 | 0.443 |
| Technological Attributes              | 0.822 | 0.883 |
| The Business Partner Afiliation       | 0.758 | 0.539 |
| The Intensity of National E-Readiness | 0.731 | 0.675 |
| External IT Support                   | 0.860 | 0.673 |

### Reliability

After measuring the convergent validity of variables, the other step is to assess the reliability of the dimensions to know to what extent the measurement model is reliable when measuring the intended latent constructs. The valuation for reliability of variables and constructs for measurement model is made through the following standards: 1) Internal Reliability that demonstrates the strength of the items and variables together in the measurement. The internal reliability achieved when Cronbach alpha be value is 0.7 or higher (calculated in SPSS), 2) The Composite Reliability (CR) that signifies the internal consistency for the latent constructs that is achieved when the value is 0.6 or higher (that is calculated and showed in table 9.29), and 3) AVE known as Average Variance Extracted that is related to the average percentage of variation described by measuring items related to latent constructs that is acceptable when reach to minimum of 0.5 or higher for every construct. Based on the outcomes of the reliability test conducted in this research, the results met the requirement since the Cronbach Alpha values were higher than the acceptable level ranges from 0.701 to 0.928 (stated in Table 9.2, calculated in SPSS software), followed by composite reliability ranges from 0.731 and 0.863, and AVE ranges from 0.443 and 0.883 (Table 9.29).

### Evaluation of the Goodness of Fit of Measurement Model

Scholars used the principles suggested by Hair *et al.*, (2009) for conducting measurement of the structural model. There are various fitness indexes have been adopted by scholars to measure the fitness of a model. However, there is no specific value to use for fitness indexes and scholars have not yet agreed which fitness indexes to use. There are three categories of model fit and the deployment of the minimum of one fitness index has been suggested by Hair *et al.* (2014), and Holmes-Smith (2006) from each category. These three model fit categories are i) Absolute Fit, ii) Incremental Fit, and iii) Parsimonious Fit. In this study, there are five fitness indexes have been deployed including: Root Mean square of error approximation (RMSEA), the goodness of fit index (GFI), incremental fix index (IFI), and comparative fix

index (CFI). These are the recommended and frequently reported fitness indexes in literature. The minimum requirement for using the four fitness model indexes can be seen in Table 9.30.

**Table 9.30:** The Supported Literature for Model Fitness Index Categories and their Level of Acceptance

| Name of Category                               | Level of Acceptance | Comments   | Literature  |
|--|---------------------|--|---|
| Factor Loading                                 | > 0.5               | Factor loadings of 0.5 or higher are acceptable weight.                                  | Heir <i>et al.</i> (2009)   |
| Root Mean Square of Error Approximation(RMSEA) | <0.8                | Below 0.08 indicates a satisfactory fit.   | MacCallum <i>et al.</i> , (1996); Browne and Cudeck (1993)  |
| Goodness of Fit Index(GFI)                     | >0.90               | Value of 0.95 is a satisfactory fit and Value higher than 0.80 recommends as a good fit. | Tabachnick and Fidell (2007); Forza and Filippini (1998); Greenspoon and Saklofske (1998); El-Gohary (2009); Baumgartner and Homburg (1995), and Doll, Xia, and Torkezadeh (1994) |
| Comparative Fit Index(CFI)                     | >0.90               | Value of 0.95 is a satisfactory fit and Value higher than 0.80 recommends as a good fit. | Bentler (1990); Hu and Bentler, (1999); El-Gohary (2009); Baumgartner and Homburg (1995), and Doll, Xia, and Torkezadeh (1994)  |
| Incremental Fit Index(IFI)                     | >0.90               | Value of 0.95 is a satisfactory fit and value above 0.80 is as a good fit.               | Bollen (1989); El-Gohary (2009); Baumgartner and Homburg (1995), and Doll, Xia, and Torkezadeh (1994)   |

Based on model fitness index requirements explained in Table 9.30, this research achieved to the acceptable model fit as it found RMSEA value was 0.065 (shows that the model has achieved a good fit model since the RMSEA value is less than 0.08), followed by GFI value 0.811 (shows that the model has achieved a good fit as it is above 0.80), CFI value 0.877 (shows that the model has achieved a good fit as it is above 0.80) and IFI value 0.879 (shows that the model has achieved a good fit as it is above 0.80). also, the factor loadings range from 0.55 and 0.81 show acceptable weight as all are above 0.5. The results found confirm the good fitness of the model. The summary of the reliability test is shown in Table 9.31.

**Table 9.31:** Summary of the Reliability Results

| RMSEA | GFI   | CFI   | IFI   |
|-------|-------|-------|-------|
| 0.065 | 0.811 | 0.877 | 0.879 |

### 9.3.5.3 Testing the Hypothesised Causal Relationships

Figure 9.11 illustrates the results of AMOS Graphic of Model 5 presented the standardised estimated parameters for the beta coefficient, each construct's level of significance, and each

construct's square multiple correlations (where: \*\*\* significant at 0.001; \*\*significant at 0.01; and \* significant at 0.05).

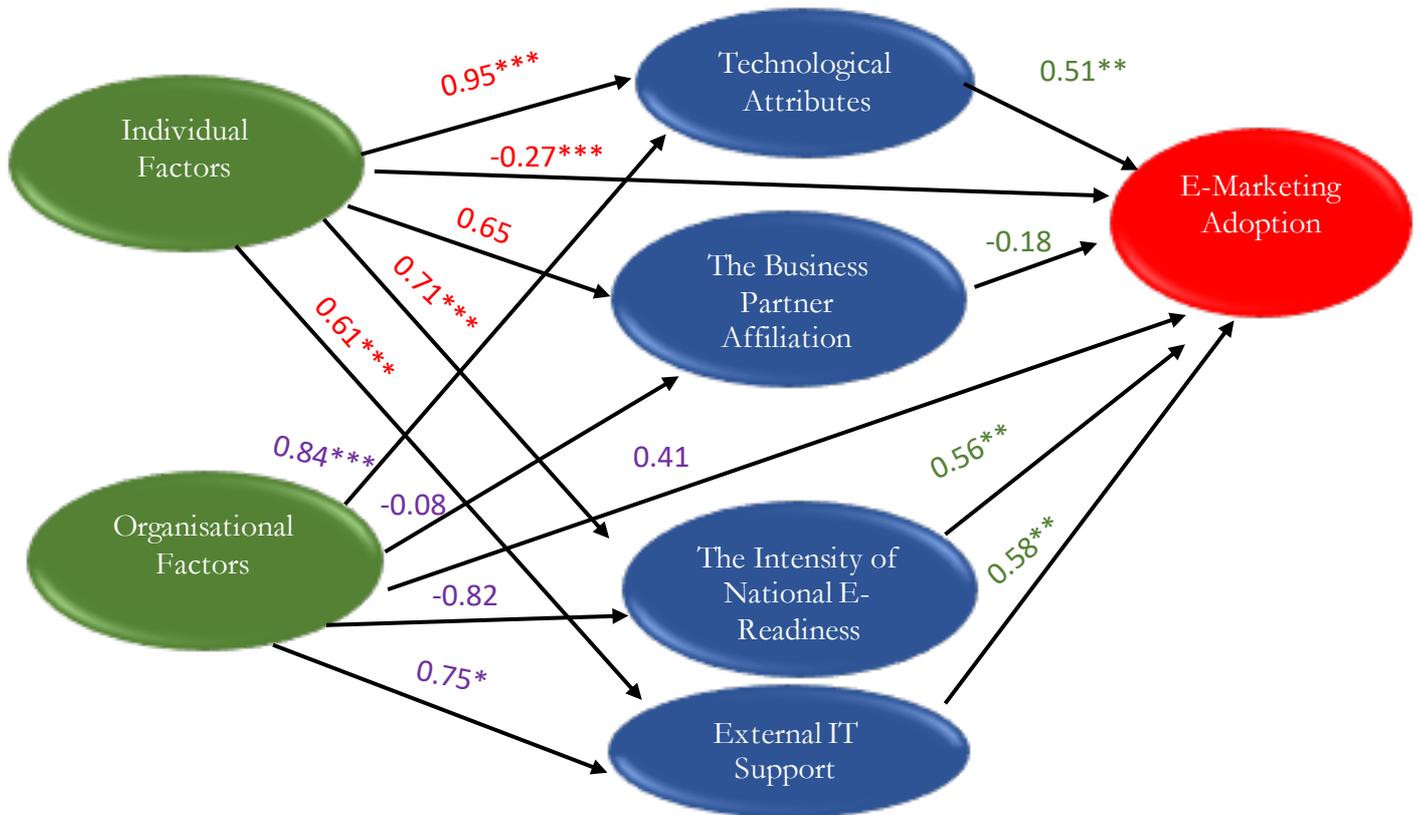


Figure 9.11: Outcomes of Regression Weights and the Probability Value

Figure 9.11 and Table 9.32 demonstrate the outcomes of each path relationship in model 5. Although some of the paths indicate a significant relationship among dependent and independent variables, which is known as exogenous and endogenous, construct relationship in structural equation modelling. The relationship among variables with positive significant relationship include: 1) individual factors to technological attributes (P= 0.000\*\*\*); 2) individual factors to intensity of national e-readiness (P= 0.000\*\*\*); 3) individual factors to external IT support (P= 0.000\*\*\*); 4) organisational factors to technological attributes (P= 0.001\*\*\*); 5) organisational factors to external IT support (P= 0.026\*\*); 6) E-Marketing adoption to technological attributes (P=0.006\*\*); 7) E-Marketing adoption to intensity of national e-readiness (P=0.007\*\*); 8) E-Marketing adoption to external IT support (P= 0.046\*\*); and 9) E-Marketing adoption to individual factors (P= 0.000\*\*\*).

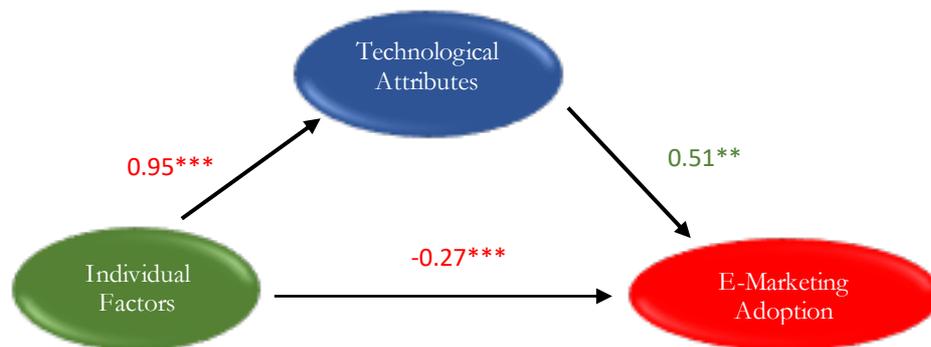
On the other side, there are five other relationships of variables which are not significant. The insignificant relationships of path analysis are: 1) organisational factors to The Business Partner Affiliation (P= 0.153); 2) E-Marketing adoption to The Business Partner Affiliation (P= 0.287); 3) E-Marketing adoption to organisational factors (P= 0.104), 4) individual factors to The Business Partner Affiliation (P= 0.139); and 5) organisational factors to intensity of national e-readiness (P= 0.185). The results indicate that independent variable of individual factors have a positive direct relationship to dependent variable of E-Marketing adoption whereas the other independent variable related to organisational factors indicate the insignificant direct relationship to dependent variable of E-Marketing adoption. Therefore, it is essential to examine the role of external related factor when mediates the internal factors contributing for Iranian distribution firms' E-Marketing adoption.

**Table 9.32:** The Regression Weights of the Causal Paths and Outcomes

| Hypothesised Relationships |                                       | Standardised Estimates | P-Value  | Result                 |
|----------------------------|---------------------------------------|------------------------|----------|------------------------|
| From                       | To                                    |                        |          |                        |
| Individual Factors         | Technological Attributes              | 0.95                   | 0.000*** | <i>Significant</i>     |
| Individual Factors         | The Business Partner Affiliation      | 0.65                   | 0.139    | <i>Not Significant</i> |
| Individual Factors         | The Intensity of National E-Readiness | 0.71                   | 0.000*** | <i>Significant</i>     |
| Individual Factors         | External IT Support                   | 0.61                   | 0.000*** | <i>Significant</i>     |
| Organisational Factors     | Technological Attributes              | 0.84                   | 0.001*** | <i>Significant</i>     |
| Organisational Factors     | The Business Partner Affiliation      | -0.08                  | 0.153    | <i>Not Significant</i> |
| Organisational Factors     | The Intensity of National E-Readiness | -0.82                  | 0.185    | <i>Not Significant</i> |
| Organisational Factors     | External IT Support                   | 0.75                   | 0.026**  | <i>Significant</i>     |
| E-Marketing Adoption       | Technological Attributes              | 0.51                   | 0.006**  | <i>Significant</i>     |
| E-Marketing Adoption       | The Business Partner Affiliation      | -0.18                  | 0.287    | <i>Not Significant</i> |
| E-Marketing Adoption       | The Intensity of National E-Readiness | 0.56                   | 0.007**  | <i>Significant</i>     |
| E-Marketing Adoption       | External IT Support                   | 0.58                   | 0.046**  | <i>Significant</i>     |
| E-Marketing Adoption       | Individual Factors                    | -0.27                  | 0.000*** | <i>Significant</i>     |
| E-Marketing Adoption       | Organisational Factors                | 0.41                   | 0.104    | <i>Not Significant</i> |

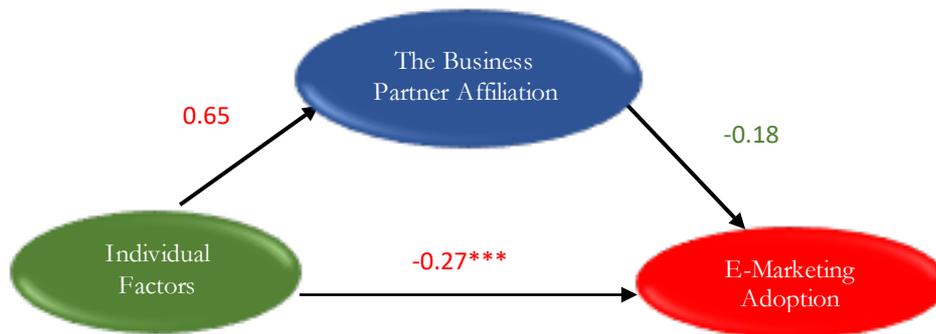
### 9.3.5.4 Analysis of Direct and Indirect Effects of Variables in Model 5

First, the mediation effect of technological attributes in the relationship between individual factors and E-Marketing adoption investigated in this study (Figure 9.12). For calculation of the direct effect, the path from individual factors to technological attributes was multiplied to the path from the technological attributes to E-Marketing adoption (the indirect effect =  $0.95 \times 0.51 = 0.4845$ ). The outcome of indirect effect is compared to the direct effect of the relationship among individual factors and E-Marketing adoption ( $-0.27$ ). As a result, as the indirect effect value ( $0.4845$ ) is bigger than the value of direct effect ( $-0.27$ ), the study found technological attributes mediates the relationship between individual factors and E-Marketing adoption. Type of the mediation here is partial mediation since the direct effect is still significant after the mediator enters the model.



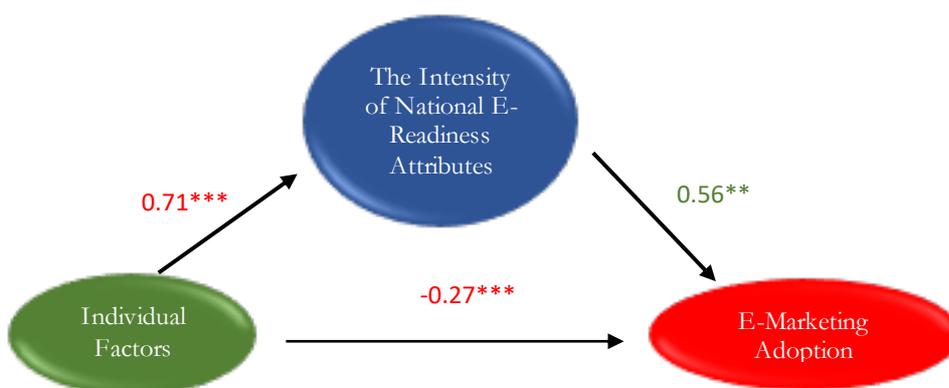
**Figure 9.12:** Mediation Effect of Technological Attributes in the Relationship between Individual Factors and E-Marketing Adoption

Second, the mediation effect of The Business Partner Affiliation in the relationship between individual factors and E-Marketing adoption investigated in this study (Figure 9.13). For calculation of direct effect, the path from individual factors to The Business Partner Affiliation was multiplied by the path from The Business Partner Affiliation to E-Marketing adoption (the indirect effect =  $0.65 \times -0.18 = -0.117$ ). The outcome of indirect effect is compared to the direct effect of the relationship among individual factors and E-Marketing adoption ( $-0.27$ ). As a result, as the indirect effect value  $-0.117$  is smaller than the value of direct effect ( $-0.27$ ) and the relationship of the indirect effect is not significant. Hence the study found The Business Partner Affiliation does not mediate the relationship between individual factors and E-Marketing adoption.



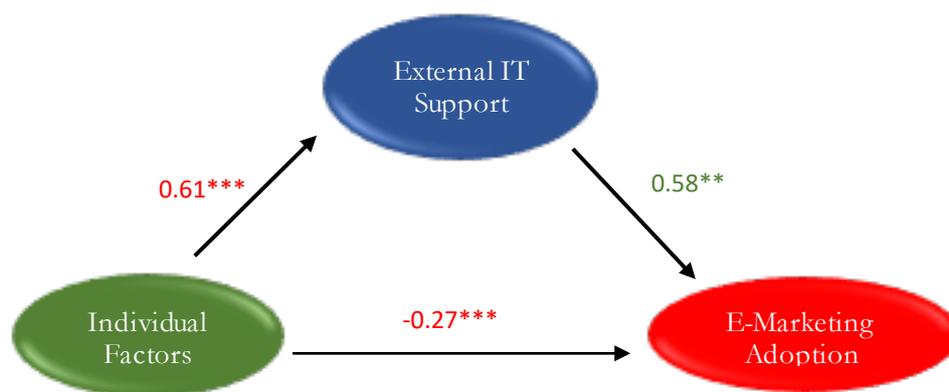
**Figure 9.13:** Mediation Effect of the Business Partner Affiliation in the Relationship between Individual Factors and E-Marketing Adoption

Third, the mediation effect of the intensity of national e-readiness in the relationship between individual factors and E-Marketing adoption investigated in this study (Figure 9.14). For calculation of direct effect, the path from individual factors to the intensity of national e-readiness was multiplied by the path from the intensity of national e-readiness to E-Marketing adoption (the indirect effect =  $0.71 \times 0.56 = 0.3976$ ). The outcome of indirect effect is compared to the direct effect of the relationship among individual factors and E-Marketing adoption (-0.27). As a result, as the indirect effect value (0.3976) is bigger than the value of direct effect (-0.27). Hence the study found the intensity of national e-readiness plays a mediation role in the relationship between individual factors and E-Marketing adoption. Type of the mediation here is partial mediation since the direct effect is still significant after the mediator enters the model.



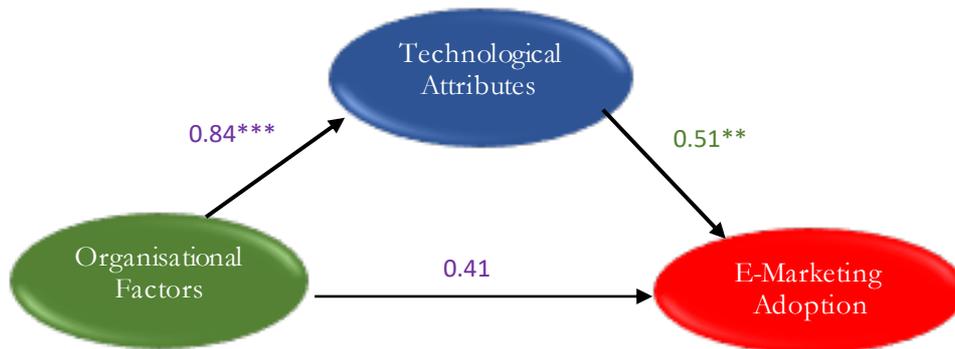
**Figure 9.14:** Mediation Effect of the Intensity of National E-Readiness in the Relationship between Individual Factors and E-Marketing Adoption

Forth, the mediation effect of the external IT support in the relationship between individual factors and E-Marketing adoption investigated in this study (Figure 9.15). For calculation of direct effect, the path from individual factors to the external IT support was multiplied by the path from the external IT support to E-Marketing adoption (the indirect effect =  $0.61 \times 0.58 = 0.3538$ ). The outcome of indirect effect is compared to the direct effect of the relationship among individual factors and E-Marketing adoption (-0.27). As a result, as the indirect effect value (0.3538) is bigger than the value of direct effect (-0.27). Hence, the study found the external IT support plays a mediation role in the relationship between individual factors and E-Marketing adoption. Type of the mediation here is partial mediation since the direct effect is still significant after the mediator enters the model.



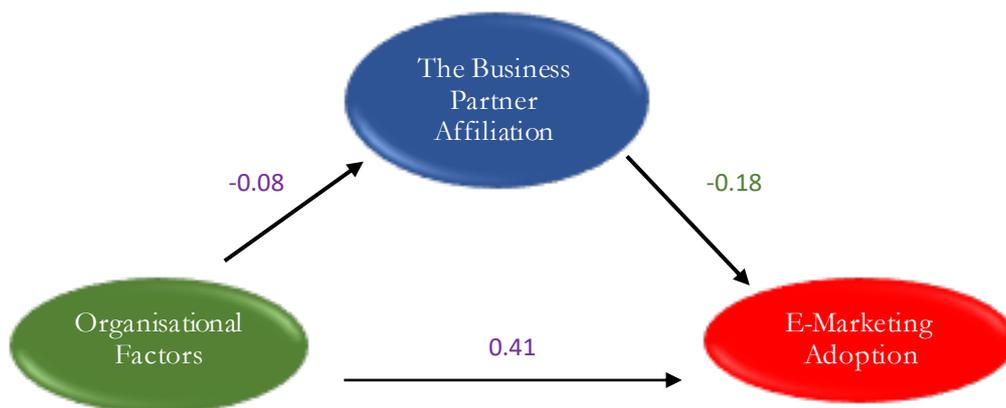
**Figure 9.15:** Mediation Effect of the External IT Support in the Relationship between Individual Factors and 3-Marketing Adoption

Fifth, the mediation effect of the technological attributes in the relationship between organisational factors and E-Marketing adoption investigated in this study (Figure 9.16). For calculation of direct effect, the path from organisational factors to the technological attributes was multiplied by the path from the technological attributes to E-Marketing adoption (the indirect effect =  $0.84 \times 0.51 = 0.4284$ ). The outcome of indirect effect is compared to the direct effect of the relationship among organisational factors and E-Marketing adoption (0.41). As a result, as the indirect effect value (0.4284) is bigger than the value of direct effect (0.41). Hence, the study found the technological attributes plays a mediation role in the relationship between organisational factors and E-Marketing adoption. Type of the mediation here is full mediation since the direct effect is not significant after the mediator enters the model.



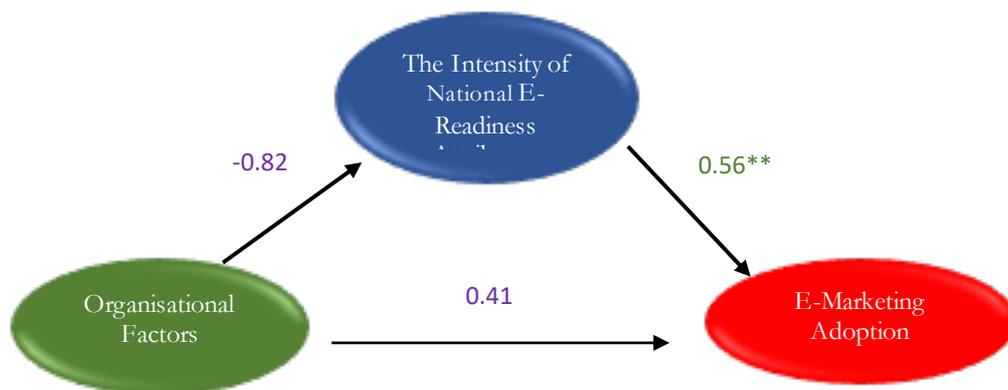
**Figure 9.16:** Mediation Effect of Technological Attributes in the Relationship between Organisational Factors and E-Marketing Adoption

Sixth, the mediation effect of The Business Partner Affiliation in the relationship between organisational factors and E-Marketing adoption investigated in this study (Figure 9.17). For calculation of direct effect, the path from organisational factors to The Business Partner Affiliation was multiplied by the path from The Business Partner Affiliation to E-Marketing adoption (the indirect effect =  $-0.08 \times -0.18 = 0.0144$ ). The outcome of indirect effect is compared to the direct effect of the relationship among organisational factors and E-Marketing adoption (0.41). As a result, as the indirect effect value 0.0144 is smaller than the value of direct effect (0.41) and the relationship of the indirect effect is not significant. Hence, the study found The Business Partner Affiliation does not play a mediation role in the relationship between organisational factors and E-Marketing adoption.



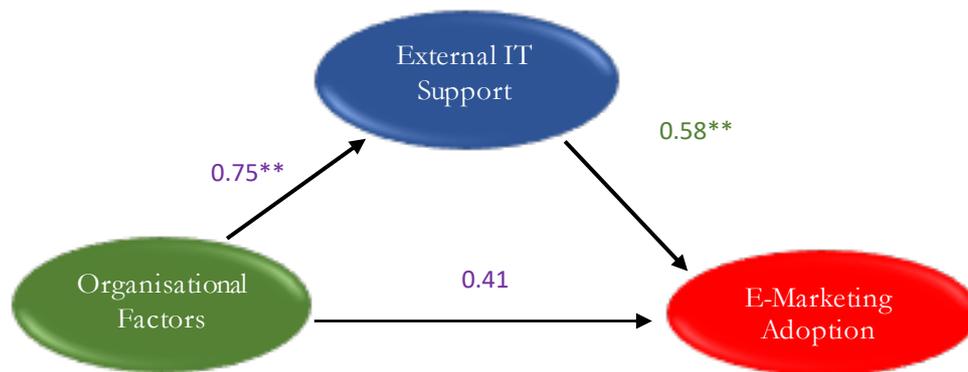
**Figure 9.17:** Mediation Effect of the Business Partner Affiliation in the Relationship between Organisational Factors and E-Marketing Adoption

Seventh, the mediation effect of the intensity of national e-readiness in the relationship between organisational factors and E-Marketing adoption investigated in this study (Figure 9.18). For calculation of direct effect, the path from organisational factors to the intensity of national e-readiness was multiplied by the path the intensity of national e-readiness to E-Marketing adoption (the indirect effect =  $-0.82 \times 0.56 = -0.4592$ ). The outcome of indirect effect is compared to the direct effect of the relationship among organisational factors and E-Marketing adoption (0.41). As a result, as the indirect effect value  $-0.4592$  is smaller than the value of direct effect (0.41) and the relationship of the indirect effect is not significant. Hence, the study found the intensity of national e-readiness does not play a mediation role in the relationship between organisational factors and E-Marketing adoption.



**Figure 9.18:** Mediation Effect of the Intensity of National E-Readiness in the Relationship between Organisational Factors and E-Marketing Adoption

Eighth, the mediation effect of the external IT support in the relationship between organisational factors and E-Marketing adoption investigated in this study (Figure 9.19). For calculation of direct effect, the path from organisational factors to the external IT support was multiplied by the path from the external IT support to E-Marketing adoption (the indirect effect =  $0.75 \times 0.58 = 0.435$ ). The outcome of indirect effect is compared to the direct effect of the relationship among organisational factors and E-Marketing adoption (0.41). As a result, as the indirect effect value  $0.435$  is bigger than the value of direct effect (0.41), hence, the study found the external IT support plays a mediation role in the relationship between organisational factors and E-Marketing adoption. Type of the mediation here is full mediation since the direct effect is not significant after the mediator enters the model.



**Figure 9.19:** Mediation Effect of the External IT Support in the Relationship between Organisational Factors and E-Marketing Adoption

Based on the results of structural equation modelling (SEM) analysis for Model 5, the research demonstrates the outcome of hypotheses test developed for Model 5 in the Table 9.33.

**Table 9.33:** Summary of the Results of the Hypotheses test in Model 5

| Hypotheses |  | Results         |
|------------|--|-----------------|
| H5A        | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on E-Marketing adoption of Iranian distribution firms.   | <i>Accepted</i> |
| H5B        | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on technological attributes by Iranian distribution firms.   | <i>Accepted</i> |
| H5C        | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on The Business Partner Affiliation.   | <i>Rejected</i> |
| H5D        | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on the intensity of national e-readiness.  | <i>Accepted</i> |
| H5E        | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on external IT support.  | <i>Accepted</i> |
| H5F        | Adopting E-Marketing by Iranian distribution firms is dependent on Technological attributes.   | <i>Accepted</i> |
| H5G        | Adopting E-Marketing by Iranian distribution firms is dependent on The Business Partner Affiliation.   | <i>Rejected</i> |
| H5H        | Adopting E-Marketing by Iranian distribution firms is dependent on the intensity of national e-readiness.  | <i>Accepted</i> |
| H5I        | Adopting E-Marketing by Iranian distribution firms is dependent on external IT support.  | <i>Accepted</i> |
| H5J        | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on E-Marketing adoption of Iranian distribution firms. | <i>Rejected</i> |

|     |   |                 |
|-----|---|-----------------|
| H5K | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation have a positive impact on technological attributes by Iranian distribution firms. | <i>Accepted</i> |
| H5L | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation have a positive impact on The Business Partner Affiliation.                       | <i>Rejected</i> |
| H5M | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on the intensity of national e-readiness.                   | <i>Rejected</i> |
| H5N | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on external IT support.                                     | <i>Accepted</i> |
| H5O | Technological attributes mediate the relationship between organisational factors and E-Marketing adoption.  | <i>Accepted</i> |
| H5P | The Business Partner Affiliation mediates the relationship between organisational factors and E-Marketing adoption.   | <i>Rejected</i> |
| H5Q | The intensity of national e-readiness mediates the relationship between organisational factors and E-Marketing adoption.  | <i>Rejected</i> |
| H5R | External IT support mediates the relationship between organisational factors and E-Marketing adoption.  | <i>Accepted</i> |
| H5S | Technological attributes mediate the relationship between Individual factors and E-Marketing adoption.  | <i>Accepted</i> |
| H5T | The Business Partner Affiliation mediates the relationship between Individual factors and E-Marketing adoption.   | <i>Rejected</i> |
| H5U | The intensity of national e-readiness mediates the relationship between Individual factors and E-Marketing adoption.  | <i>Accepted</i> |
| H5V | External IT support mediates the relationship between Individual factors and E-Marketing adoption.  | <i>Accepted</i> |

#### 9.4 E-Marketing Adoption Impacts on Iranian Distribution Firms' Marketing Performance

The research argues that Iranian distribution firms achieve to a positive marketing performance because of the involvement of their marketing strategies with online activities. Therefore, a set of hypotheses was established to investigate the impacts of E-Marketing adoption on Iranian distribution firms. The hypotheses testing process in this section are based on the discussions in chapter two, six and seven. The research tests the impact on current and future performance in two-fold included financial and non-financial measures. Hence, four hypotheses were developed to investigate the impacts of E-Marketing adoption on Iranian distribution firms (hypothesis 6A to hypothesis 6D). For testing the hypotheses, Regression analysis and one-sample t-test were deployed. Table 9.34 shows the hypotheses of the second stage of inferential analysis.

**Table 9.34:** Hypotheses Developed to Examine the Impacts of E-Marketing Adoption on Iranian Distribution Firms' Marketing Performance

| Hypotheses |   |
|------------|---|
| H6A        | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the current financial performance of the firms.             |
| H6B        | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the current non-financial performance of the firms.         |
| H6C        | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the expected future financial performance of the firms.     |
| H6D        | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the expected future non-financial performance of the firms. |

### 9.4.1 E-Marketing Adoption Impact on the Current Financial Performance of Iranian Distribution Firms

The researcher conducted simple linear regression and one-sample t-test to examine the impact of the independent variable (E-Marketing adoption) on the dependent variable (current financial performance). The following equation explains the simple linear regression:

$$\text{Current Financial performance} = \text{Constant} + \beta_1 \text{ e-marketing adoption (H6A)} + \epsilon$$

To examine the above simple linear regression, the variables explaining the E-Marketing adoption was entered in a block. Hence, it has been found that all of the observed variances were statistically significant in explaining the relationship between E-Marketing adoption and current financial performance by Iranian distribution firms. Table 9.35 shows that 18% of the variability in the dependent variable (current financial performance) is explained by the independent variable (E-Marketing adoption) with the  $R^2 = 0.183$ , and Adjusted  $R^2 = 0.179$ . Therefore, the research suggests that E-Marketing adoption explains the variation in current financial performance of Iranian distribution firms in a good way.

**Table 9.35:** Model<sup>b</sup> Summary

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |               |     |      |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|---------------|-----|------|
|       |                   |          |                   |                            | R Square Change   | F Change | Sig. F Change |     |      |
| 6     | .427 <sup>a</sup> | .183     | .179              | 5.14892                    | .183              | 51.172   | 1             | 229 | .000 |

a. Predictors (Constant): E-Marketing Adoption

b. Dependent Variable: Current Financial Effect on Performance

The analysis of variance (ANOVA) was used to examine the null hypothesis that there is no relationship between independent variable (E-Marketing adoption) and the dependent variable (current financial performance). As can be seen in Table 9.36, the ANOVA result indicates that

there is a significant contribution of E-Marketing adoption on Iranian distribution firms' current financial performance. The outcome can be seen from the column of Sig., where the significant level is less than 0.001 (F= 51.172). Based on the ANOVA outcome, the research rejects the null hypotheses that there is no relationship of E-Marketing adoption and current financial performance.

**Table 9.36:** Summary of ANOVA<sup>b</sup> Results

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 6     | Regression | 1356.633       | 1   | 1356.633    | 51.172 | .000 <sup>b</sup> |
|       | Residual   | 6071.116       | 229 | 26.511      |        |                   |
|       | Total      | 7427.749       | 230 |             |        |                   |

a. Predictors (Constant): E-Marketing Adoption

b. Dependent Variable: Current Financial Effect on Performance

As can be seen in Table 9.37, the t-statistics test was conducted to test the null hypothesis in which the population partial regression coefficient for the variables is equal to zero.

**Table 9.37:** Result of Regression Coefficients <sup>a</sup>

| Model |                      | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------|----------------------|-----------------------------|------------|---------------------------|-------|------|
|       |                      | B                           | Std. Error | Beta                      |       |      |
| 6     | (Constant)           | 17.507                      | 2.828      |                           | 6.190 | .000 |
|       | E-Marketing Adoption | .706                        | .099       | .427                      | 7.153 | .000 |

a. Dependent Variable: Current Financial Effect on Performance

Table 9.37 shows that the study can safely reject the null hypothesis that the coefficient for E-Marketing adoption and current financial performance (B= 0.427, t= 7.153, Sig< 0.001) is equal to zero. Therefore, the hypothesis 6A is accepted.

Additionally, to compare whether the sample of this research means are significantly different from mid-point of the scale (3.00), one sample t-test was conducted. Table 9.38 is demonstrated the one sample T-test of current financial performance and consequently, Table 9.39 is demonstrated the result of one sample T-test.

**Table 9.38:** One-sample statistics for Current Financial Performance Indicators

|                                   | N   | Mean   | Std. Deviation | Std. Error Mean |
|-----------------------------------|-----|--------|----------------|-----------------|
| Total firm's profitability growth | 231 | 3.6061 | .94444         | .06214          |
| Gross Profit Margin               | 231 | 3.5584 | .92539         | .06089          |
| Net profit from new operations    | 231 | 3.6061 | .93519         | .06153          |

|   |     |        |        |        |
|---|-----|--------|--------|--------|
| Increase on Return on Marketing Investment.   | 231 | 3.6190 | .87097 | .05731 |
| Increase sales growth                         | 231 | 3.7446 | .80739 | .05312 |
| Creation of new market                        | 231 | 3.7359 | .80458 | .05294 |
| Increase in market share of products/services | 231 | 3.7403 | .80330 | .05285 |

**Table 9.39:** One Sample T-Test outcome of Statistical Significance on Current Financial Performance Indicators

|   | Test Value = 3 |     |                 |                 |   |       |
|---|----------------|-----|-----------------|-----------------|---|-------|
|   | t              | df  | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |       |
|   |                |     |                 |                 | Lower                                     | Upper |
| Total firm's profitability growth             | 9.753          | 230 | .000            | .60606          | .4836                                     | .7285 |
| Gross Profit Margin                           | 9.172          | 230 | .000            | .55844          | .4385                                     | .6784 |
| Net profit from new operations                | 9.850          | 230 | .000            | .60606          | .4848                                     | .7273 |
| Increase on Return on Marketing Investment    | 10.803         | 230 | .000            | .61905          | .5061                                     | .7320 |
| Increase sales growth                         | 14.017         | 230 | .000            | .74459          | .6399                                     | .8493 |
| Creation of new markets                       | 13.902         | 230 | .000            | .73593          | .6316                                     | .8402 |
| Increase in market share of products/services | 14.006         | 230 | .000            | .74026          | .6361                                     | .8444 |

As can be seen in Table 9.39, the outcome demonstrates the sample means are significantly different from the mid-point scale 3.00 ( $P < 0.001$ ) for all the current financial performance indicators. The result confirms that all the indicators for distribution firms' current financial performance are on the positive side. Therefore, the researcher can safely accept the hypothesis 6A that current financial performance is dependent on the E-Marketing adoption by Iranian distribution firms.

#### 9.4.2 E-Marketing Adoption Impact on the Current Non-Financial Performance of Iranian Distribution Firms

The researcher conducted simple linear regression and one-sample t-test to examine the impact of the independent variable (E-Marketing adoption) on the dependent variable (current non-financial performance). The following equation explains the simple linear regression:

$$\text{Current Non-Financial performance} = \text{Constant} + \beta_1 \text{ e-marketing adoption (H6B)} + \varepsilon$$

To examine the above simple linear regression, the variables explaining the E-Marketing adoption was entered in a block. Hence, it has been found that all of the observed variances were statistically significant in explaining the relationship between E-Marketing adoption and current non-financial performance by Iranian distribution firms. Table 9.40 shows that 20% of the variability in the dependent variable (current non-financial performance) is explained by the independent variable (E-Marketing adoption) with the  $R^2 = 0.205$ , and Adjusted  $R^2 = 0.201$ . Therefore, the research suggests that E-Marketing adoption explains the variation in current non-financial performance of Iranian distribution firms in a good way.

**Table 9.40:** Model<sup>b</sup> Summary

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |   | df1 | df2  | Sig. F Change |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|---|-----|------|---------------|
|       |                   |          |                   |                            | R Square Change   | F Change |   |     |      |               |
| 1     | .453 <sup>a</sup> | .205     | .201              | 6.95317                    | .205              | 58.971   | 1 | 229 | .000 |               |

a. Predictors (Constant): E-Marketing Adoption

b. Dependent Variable: Current Non-Financial Effect on Performance

The analysis of variance (ANOVA) was used to examine the null hypothesis that there is no relationship between independent variable (E-Marketing adoption) and the dependent variable (current non-financial performance). As can be seen in Table 9.41, the ANOVA result indicates that there is a significant contribution of E-Marketing adoption on Iranian distribution firms' current non-financial performance. The outcome can be seen from the column of Sig., where the significant level is less than 0.001 ( $F = 58.971$ ). Based on the ANOVA outcome, the research rejects the null hypotheses that there is no relationship of E-Marketing adoption and current financial performance.

**Table 9.41:** Summary of ANOVA<sup>b</sup> Results

|   | Model      | Sum of Squares | df  | Mean Square | F      | Sig.              |
|---|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 2851.038       | 1   | 2851.038    | 58.971 | .000 <sup>b</sup> |
|   | Residual   | 11071.377      | 229 | 48.347      |        |                   |
|   | Total      | 13922.416      | 230 |             |        |                   |

a. Predictors (Constant): E-Marketing Adoption

b. Dependent Variable: Current Non-Financial Effect on Performance

As can be seen in Table 9.42, the t-statistics test was conducted to test the null hypothesis in which the population partial regression coefficient for the variables is equal to zero.

**Table 9.42:** Result of Regression Coefficients <sup>a</sup>

| Model |                      | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------|----------------------|-----------------------------|------------|---------------------------|-------|------|
|       |                      | B                           | Std. Error | Beta                      |       |      |
| 1     | (Constant)           | 11.141                      | 3.819      |                           | 2.917 | .000 |
|       | E-Marketing Adoption | 1.023                       | .133       | .453                      | 7.679 | .000 |

a. **Dependent Variable:** Current Non-Financial Effect on Performance

Table 9.42 shows that the study can safely reject the null hypothesis that the coefficient for E-Marketing adoption and current non-financial performance ( $B = 0.453$ ,  $t = 7.679$ ,  $Sig < 0.001$ ) is equal to zero. Therefore, the hypothesis 6B is accepted.

Additionally, to compare whether the sample of this research means are significantly different from mid-point of the scale (3.00), one sample t-test was conducted. Table 9.43 is demonstrated the one sample T-test of current non-financial performance and consequently, Table 9.44 is demonstrated the result of one sample T-test

**Table 9.43:** One-sample statistics for Current Non-Financial Performance Indicators

|  | <i>N</i> | <i>Mean</i> | <i>Std. Deviation</i> | <i>Std. Error Mean</i> |
|--|----------|-------------|-----------------------|------------------------|
| Change in Customer Ordering                                  | 231      | 3.6537      | .93319                | .06140                 |
| 24/7 Availability of after sale services                     | 231      | 3.7229      | .87543                | .05760                 |
| Order Accuracy   | 231      | 3.6277      | .93246                | .06135                 |
| Process Enhancement  | 231      | 3.7489      | .80064                | .05268                 |
| Quality Improvement of Service/Product                       | 231      | 3.7186      | .86152                | .05668                 |
| Improve in customer services                                 | 231      | 3.7706      | .85170                | .05604                 |
| New service  | 231      | 3.7576      | .85573                | .05630                 |
| Increase the accessibility to more customers                 | 231      | 3.8009      | .83624                | .05502                 |
| Support linkage with suppliers                               | 231      | 3.6580      | .93246                | .06135                 |
| Increase the ability to compete                              | 231      | 3.8571      | .76410                | .05027                 |
| Support cooperative partnership in the industry              | 231      | 3.8615      | 2.78159               | .18302                 |
| Improve collaboration and partnership among firms            | 231      | 3.7792      | .79054                | .05201                 |
| Availability of expertise regardless of physical location    | 231      | 3.7922      | .78581                | .05170                 |
| Improved communications                                      | 231      | 3.8312      | .78689                | .05177                 |
| Faster delivery and Better service and support from supplier | 231      | 3.8442      | .79779                | .05249                 |
| New customers  | 231      | 3.8312      | .85571                | .05630                 |
| Greater customer loyalty                                     | 231      | 3.7143      | .93517                | .06153                 |
| Cost reduction   | 231      | 3.7706      | .85170                | .05604                 |
| Identify New Suppliers                                       | 231      | 3.7229      | .87543                | .05760                 |
| Delivery Reliability   | 231      | 3.8052      | .81356                | .05353                 |
| Improved information   | 231      | 4.0000      | 2.75681               | .18138                 |

|  |     |        |         |        |
|--|-----|--------|---------|--------|
| Better awareness of business environment                 | 231 | 3.8701 | .74631  | .04910 |
| Technological knowledge                                  | 230 | 3.8304 | .75457  | .04975 |
| New technology innovation                                | 231 | 3.9004 | .68750  | .04523 |
| Enhancement of the managerial capabilities               | 231 | 3.7749 | .76979  | .05065 |
| Free the business of technical disruption/delays         | 231 | 3.7706 | .81518  | .05364 |
| Aid and improve the inter-company communication          | 231 | 3.8009 | 1.58367 | .10420 |
| Elimination of geographical restriction and market       | 231 | 3.8095 | .74489  | .04901 |
| Time reduction of routine service jobs                   | 231 | 3.8225 | .78498  | .05165 |
| Enhancement of the company's brand image and reputation. | 231 | 4.1039 | 2.72309 | .17917 |
| Overall success in the distribution sector               | 231 | 3.8701 | .76926  | .05061 |
| Longevity and sustainability in the market               | 231 | 3.8874 | .75491  | .04967 |

**Table 9.44:** One Sample T-Test outcome of Statistical Significance on Current Non-Financial Performance Indicator

|  | <i>Test Value = 3</i> |           |                        |                        |  |              |
|--|-----------------------|-----------|------------------------|------------------------|--|--------------|
|  | <i>t</i>              | <i>df</i> | <i>Sig. (2-tailed)</i> | <i>Mean Difference</i> | <i>95% Confidence Interval of the Difference</i> |              |
|  |                       |           |                        |                        | <i>Lower</i>                                     | <i>Upper</i> |
| Change in Customer Ordering                                  | 10.646                | 230       | .000                   | .65368                 | .5327  | .7747        |
| 24/7 Availability of after sale services                     | 12.551                | 230       | .000                   | .72294                 | .6095  | .8364        |
| Order Accuracy   | 10.231                | 230       | .000                   | .62771                 | .5068  | .7486        |
| Process Enhancement  | 14.217                | 230       | .000                   | .74892                 | .6451  | .8527        |
| Quality Improvement of Service/Product                       | 12.678                | 230       | .000                   | .71861                 | .6069  | .8303        |
| Improve in customer services                                 | 13.751                | 230       | .000                   | .77056                 | .6601  | .8810        |
| New service  | 13.455                | 230       | .000                   | .75758                 | .6466  | .8685        |
| Increase the accessibility to more customers                 | 14.556                | 230       | .000                   | .80087                 | .6925  | .9093        |
| Support linkage with suppliers                               | 10.725                | 230       | .000                   | .65801                 | .5371  | .7789        |
| Increase the ability to compete                              | 17.049                | 230       | .000                   | .85714                 | .7581  | .9562        |
| Support cooperative partnership in the industry              | 4.707                 | 230       | .000                   | .86147                 | .5009  | 1.2221       |
| Improve collaboration and partnership among firms            | 14.981                | 230       | .000                   | .77922                 | .6767  | .8817        |
| Availability of expertise regardless of physical location    | 15.322                | 230       | .000                   | .79221                 | .6903  | .8941        |
| Improved communications                                      | 16.054                | 230       | .000                   | .83117                 | .7292  | .9332        |
| Faster delivery and better service and support from supplier | 16.082                | 230       | .000                   | .84416                 | .7407  | .9476        |
| New customers  | 14.763                | 230       | .000                   | .83117                 | .7202  | .9421        |

|  |        |     |      |         |       |        |
|--|--------|-----|------|---------|-------|--------|
| Greater customer loyalty                                 | 11.609 | 230 | .000 | .71429  | .5931 | .8355  |
| Cost reduction   | 13.751 | 230 | .000 | .77056  | .6601 | .8810  |
| Identify New Suppliers                                   | 12.551 | 230 | .000 | .72294  | .6095 | .8364  |
| Delivery Reliability                                     | 15.042 | 230 | .000 | .80519  | .6997 | .9107  |
| Improved information                                     | 5.513  | 230 | .000 | 1.00000 | .6426 | 1.3574 |
| Better awareness of business environment                 | 17.720 | 230 | .000 | .87013  | .7734 | .9669  |
| Technological knowledge                                  | 16.691 | 229 | .000 | .83043  | .7324 | .9285  |
| New technology innovation                                | 19.906 | 230 | .000 | .90043  | .8113 | .9896  |
| Enhancement of the managerial capabilities               | 15.299 | 230 | .000 | .77489  | .6751 | .8747  |
| Free the business of technical disruption/delays         | 14.367 | 230 | .000 | .77056  | .6649 | .8762  |
| Aid and improve the inter-company communication          | 7.686  | 230 | .000 | .80087  | .5956 | 1.0062 |
| Elimination of geographical restriction and market       | 16.517 | 230 | .000 | .80952  | .7130 | .9061  |
| Time reduction of routine service jobs                   | 15.925 | 230 | .000 | .82251  | .7207 | .9243  |
| Enhancement of the company's brand image and reputation. | 6.161  | 230 | .000 | 1.10390 | .7509 | 1.4569 |
| Overall success in the distribution sector               | 17.192 | 230 | .000 | .87013  | .7704 | .9699  |
| Longevity and sustainability in the market               | 17.867 | 230 | .000 | .88745  | .7896 | .9853  |

As can be seen in Table 9.44, the outcome demonstrates the sample means are very significantly different from the mid-point scale 3.00 ( $P < 0.001$ ) for all the current non-financial performance indicators. The result confirms that all the indicators for distribution firms' current non-financial performance are on the positive side. Therefore, the researcher can safely accept the hypothesis 6B that current non-financial performance is dependent on the E-Marketing adoption by Iranian distribution firms.

### 9.4.3 E-Marketing Adoption Impact on the Future Financial Performance of Iranian Distribution Firms

The researcher conducted simple linear regression and one-sample t-test to examine the impact of the independent variable (E-Marketing adoption) on the dependent variable (future financial performance). The following equation explains the simple linear regression:

$$\text{Future Financial performance} = \text{Constant} + \beta_1 \text{ e-marketing adoption (H6C)} + \epsilon$$

To examine the above simple linear regression, the variables explaining the E-Marketing adoption was entered into a single block. Hence, it has been found that all of the observed variances were statistically significant in explaining the relationship between E-Marketing adoption and future financial performance by Iranian distribution firms. Table 9.45 shows that 18% of the variability in the dependent variable (future financial performance) is explained by the independent variable (E-Marketing adoption) with the  $R^2 = 0.182$ , and Adjusted  $R^2 = 0.179$ . Therefore, the research suggests that E-Marketing adoption explains the variation in current financial performance of Iranian distribution firms in a good way.

**Table 9.45:** Model<sup>b</sup> Summary

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     | Sig. F Change |      |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|---------------|------|
|       |                   |          |                   |                            | R Square Change   | F Change | df1 |               | df2  |
| 6     | .427 <sup>a</sup> | .182     | .179              | 3.49782                    | .182              | 51.071   | 1   | 229           | .000 |

a. Predictors (Constant): E-Marketing Adoption

b. Dependent Variable: Future Financial Effect on Performance

The analysis of variance (ANOVA) was used to examine the null hypothesis that there is no relationship between independent variable (E-Marketing adoption) and the dependent variable (future financial performance). As can be seen in Table 9.46, the ANOVA result indicates that there is a significant contribution of E-Marketing adoption on Iranian distribution firms' future expected financial performance. The outcome can be seen from the column of Sig., where the significant level is less than 0.001 ( $F = 51.071$ ). Based on the ANOVA outcome, the research rejects the null hypotheses that there is no relationship of E-Marketing adoption and current financial performance.

**Table 9.46:** Summary of ANOVA<sup>b</sup> Results

| Model | Sum of Squares | df       | Mean Square | F       | Sig.   |                   |
|-------|----------------|----------|-------------|---------|--------|-------------------|
| 6     | Regression     | 624.846  | 1           | 624.846 | 51.071 | .000 <sup>b</sup> |
|       | Residual       | 2801.760 | 229         | 12.235  |        |                   |
|       | Total          | 3426.606 | 230         |         |        |                   |

a. Predictors (Constant): E-Marketing Adoption

b. Dependent Variable: Future Financial Effect on Performance

As can be seen in Table 9.47, the t-statistics test was conducted to test the null hypothesis in which the population partial regression coefficient for the variables is equal to zero.

**Table 9.47:** Result of Regression Coefficients <sup>a</sup>

| Model |                      | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|-------|----------------------|-----------------------------|------------|---------------------------|-------|------|
|       |                      | B                           | Std. Error | Beta                      |       |      |
| 6     | (Constant)           | 9.156                       | 1.921      |                           | 4.766 | .000 |
|       | E-Marketing Adoption | .479                        | .067       | .427                      | 7.146 | .000 |

a. **Dependent Variable:** Future Financial Effect on Performance

Table 9.47 shows that the study can safely reject the null hypothesis that the coefficient E-Marketing adoption and current financial performance (B= 0.427, t= 7.146, Sig< 0.001) is equal to zero. Therefore, the hypothesis 6C is accepted.

Additionally, to compare whether the sample of this research means are significantly different from mid-point of the scale (3.00), one sample t-test was conducted. Table 9.48 is demonstrated the one sample T-test of future financial performance and consequently, Table 9.49 is demonstrated the result of one sample T-test.

**Table 9.48:** One-sample statistics for Future Financial Performance Indicators

|  | N   | Mean   | Std. Deviation | Std. Error Mean |
|--|-----|--------|----------------|-----------------|
| Total firm's profitability growth                  | 231 | 4.6061 | .52400         | .03448          |
| Gross Profit Margin                                | 231 | 4.5325 | .63761         | .04195          |
| Net profit from new operations                     | 231 | 4.6234 | .55260         | .03636          |
| Increase on Return on Marketing Investment         | 231 | 4.5455 | .57208         | .03764          |
| Increase sales growth                              | 231 | 4.6320 | .55843         | .03674          |
| Creation of new market                             | 231 | 4.6104 | .54746         | .03602          |
| Increase in market share of your products/services | 231 | 4.5671 | .61400         | .04040          |

**Table 9.49:** One Sample T-Test outcome of Statistical Significance on Future Financial Performance Indicators

|   | Test Value = 3 |     |                 |                 |   |        |
|---|----------------|-----|-----------------|-----------------|---|--------|
|   | t              | df  | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |        |
|   |                |     |                 |                 | Lower                                     | Upper  |
| Total firm's profitability growth Currently | 46.584         | 230 | .000            | 1.60606         | 1.5381                                    | 1.6740 |
| Gross Profit Margin                         | 36.529         | 230 | .000            | 1.53247         | 1.4498                                    | 1.6151 |
| Net profit from new operations              | 44.649         | 230 | .000            | 1.62338         | 1.5517                                    | 1.6950 |
| Increase on Return on Marketing Investment  | 41.059         | 230 | .000            | 1.54545         | 1.4713                                    | 1.6196 |
| Increase sales growth                       | 44.419         | 230 | .000            | 1.63203         | 1.5596                                    | 1.7044 |

|   |        |     |      |         |        |        |
|---|--------|-----|------|---------|--------|--------|
| Creation of new markets                             | 44.708 | 230 | .000 | 1.61039 | 1.5394 | 1.6814 |
| Increase in market share of your products/ services | 38.791 | 230 | .000 | 1.56710 | 1.4875 | 1.6467 |

As can be seen in Table 9.49, the outcome demonstrates the sample means are very significantly different from the mid-point scale 3.00 ( $P < 0.001$ ) for all the future financial performance indicators. The result confirms that all the indicators for distribution firms' future expected financial performance are on the positive side. Therefore, the researcher can safely accept the hypothesis 6C that future expected financial performance is dependent on the E-Marketing adoption by Iranian distribution firms.

#### 9.4.4 E-Marketing Adoption Impact on the Expected Future Non-Financial Performance of Iranian Distribution Firms

The researcher conducted simple linear regression and one-sample t-test to examine the impact of the independent variable (E-Marketing adoption) on the dependent variable (future non-financial performance). The following equation explains the simple linear regression:

$$\text{Future Non-Financial performance} = \text{Constant} + \beta_1 \text{ E-Marketing adoption (H6D)} + \epsilon$$

To examine the above simple linear regression, the variables explaining the E-Marketing adoption was entered into a single block. Hence, it has been found that all of the observed variances were statistically significant in explaining the relationship between E-Marketing adoption and future non-financial performance by Iranian distribution firms. Table 9.50 shows that only 5% of the variability in the dependent variable (future non-financial performance) is explained by the independent variable (E-Marketing adoption) with the  $R^2 = 0.052$ , and Adjusted  $R^2 = 0.048$ . Therefore, the research suggests that E-Marketing adoption explains the variation in future non-financial performance of Iranian distribution firms in a good way.

Table 9.50: Model<sup>b</sup> Summary

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1     | .228 <sup>a</sup> | .052     | .048              | 15.22260                   | .052              | 12.535   | 1   | 228 | .000          |

a. Predictors (Constant): E-Marketing Adoption

b. Dependent Variable: Future Non-Financial Effect on Performance

The analysis of variance (ANOVA) was used to examine the null hypothesis that there is no relationship between independent variable (E-Marketing adoption) and the dependent variable (future non-financial performance). As can be seen in Table 9.51, the ANOVA result indicates that there is a significant contribution of E-Marketing adoption on Iranian distribution firms' future non-financial performance. The outcome can be seen from the column of Sig., where the significant level is less than 0.001 ( $F= 12.535$ ). Based on the ANOVA outcome, the research rejects the null hypotheses that there is no relationship of E-Marketing adoption and future financial performance.

**Table 9.51:** Summary of ANOVA<sup>b</sup> Results

| Model |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1     | Regression | 2904.649       | 1   | 2904.649    | 12.535 | .000 <sup>b</sup> |
|       | Residual   | 52833.894      | 228 | 231.728     |        |                   |
|       | Total      | 55738.543      | 229 |             |        |                   |

a. Predictors (Constant): E-Marketing Adoption

b. Dependent Variable: Future Non-Financial Effect on Performance

As can be seen in Table 9.52, the t-statistics test was conducted to test the null hypothesis in which the population partial regression coefficient for the variables is equal to zero.

**Table 9.52:** Result of Regression Coefficients <sup>a</sup>

| Model |                      | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|----------------------|-----------------------------|------------|---------------------------|--------|------|
|       |                      | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)           | 141.932                     | 8.363      |                           | 16.972 | .000 |
|       | E-Marketing Adoption | 1.033                       | .292       | .228                      | 3.540  | .000 |

a. Dependent Variable: Future Non-Financial Effect on Performance

Table 9.52 shows that the study can safely reject the null hypothesis that the coefficient for E-Marketing adoption and future non-financial performance ( $B= 0.228$ ,  $t= 3.540$ ,  $Sig < 0.001$ ) is equal to zero. Therefore, the hypothesis 6D is accepted.

Additionally, to compare whether the sample of this research means are significantly different from mid-point of the scale (3.00), one sample t-test was conducted. Table 9.53 is demonstrated the one sample T-test of future non-financial performance and consequently, Table 9.54 is demonstrated the result of one sample T-test

**Table 9.53:** One-sample statistics for Future Non-Financial Performance Indicators

|  | N   | Mean   | Std. Deviation | Std. Error Mean |
|--|-----|--------|----------------|-----------------|
| Change in Customer Ordering                                  | 231 | 4.5887 | .62530         | .04114          |
| 24/7 Availability of after sale services                     | 231 | 4.6970 | .47907         | .03152          |
| Order Accuracy   | 231 | 4.5844 | .62590         | .04118          |
| Process Enhancement  | 231 | 4.6147 | .53042         | .03490          |
| Quality Improvement of Service/Product                       | 231 | 4.7879 | 3.37162        | .22184          |
| Improve in customer services                                 | 231 | 4.6320 | .55058         | .03623          |
| New service  | 231 | 4.6061 | .55620         | .03660          |
| Increase the accessibility to more customers                 | 231 | 4.6364 | .63058         | .04149          |
| Support linkage with suppliers                               | 231 | 4.5541 | .70116         | .04613          |
| Increase the ability to compete                              | 231 | 4.6623 | .49195         | .03237          |
| Support cooperative partnership in the industry              | 231 | 4.4892 | .63835         | .04200          |
| Improve collaboration and partnership among firms            | 231 | 4.7965 | 3.36958        | .22170          |
| Availability of expertise regardless of physical location    | 231 | 4.5887 | .56696         | .03730          |
| Improved communications                                      | 231 | 4.6364 | .49980         | .03288          |
| Faster delivery and Better service and support from supplier | 231 | 4.6364 | .52525         | .03456          |
| New customers  | 231 | 4.6970 | .59996         | .03947          |
| Greater customer loyalty                                     | 231 | 4.5844 | .74631         | .04910          |
| Cost reduction   | 231 | 4.6407 | .61566         | .04051          |
| Identify New Suppliers                                       | 231 | 4.6364 | .51691         | .03401          |
| Delivery Reliability   | 231 | 4.6061 | .57917         | .03811          |
| Improved information   | 231 | 4.6190 | .52119         | .03429          |
| Better awareness of business environment                     | 231 | 4.6537 | .52872         | .03479          |
| Technological knowledge                                      | 230 | 4.6494 | .51329         | .03377          |
| New technology innovation                                    | 231 | 4.6234 | .54467         | .03584          |
| Enhancement of the managerial capabilities                   | 231 | 4.6147 | .56993         | .03750          |
| Free the business of technical disruption/delays             | 231 | 4.6537 | .51201         | .03369          |
| Aid and improve the inter-company communication              | 231 | 4.5628 | .67515         | .04442          |
| Elimination of geographical restriction and market           | 231 | 4.5758 | .59133         | .03891          |
| Time reduction of routine service jobs                       | 231 | 4.6494 | .52169         | .03432          |
| Enhancement of the company's brand image and reputation.     | 231 | 4.7186 | .46020         | .03028          |
| Overall success in the distribution sector                   | 231 | 4.7013 | .50385         | .03315          |
| Longevity and sustainability in the market                   | 231 | 4.6797 | .57595         | .03789          |

**Table 9.54:** One Sample T-Test outcome of Statistical Significance on Future Non-Financial Performance Indicator

|  | Test Value = 3 |     |                 |                 |   |        |
|--|----------------|-----|-----------------|-----------------|---|--------|
|  | t              | df  | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |        |
|  |                |     |                 |                 | Lower                                     | Upper  |
| Change in Customer Ordering                                  | 38.616         | 230 | .000            | 1.58874         | 1.5077                                    | 1.6698 |
| 24/7 Availability of after sale services                     | 53.837         | 230 | .000            | 1.69697         | 1.6349                                    | 1.7591 |
| Order Accuracy   | 38.474         | 230 | .000            | 1.58442         | 1.5033                                    | 1.6656 |
| Process Enhancement  | 46.268         | 230 | .000            | 1.61472         | 1.5460                                    | 1.6835 |
| Quality Improvement of Service/Product                       | 8.059          | 230 | .000            | 1.78788         | 1.3508                                    | 2.2250 |
| Improve in customer services                                 | 45.052         | 230 | .000            | 1.63203         | 1.5607                                    | 1.7034 |
| New service  | 43.887         | 230 | .000            | 1.60606         | 1.5340                                    | 1.6782 |
| Increase the accessibility to more customers                 | 39.441         | 230 | .000            | 1.63636         | 1.5546                                    | 1.7181 |
| Support linkage with suppliers                               | 33.688         | 230 | .000            | 1.55411         | 1.4632                                    | 1.6450 |
| Increase the ability to compete                              | 51.358         | 230 | .000            | 1.66234         | 1.5986                                    | 1.7261 |
| Support cooperative partnership in the industry              | 35.456         | 230 | .000            | 1.48918         | 1.4064                                    | 1.5719 |
| Improve collaboration and partnership among firms            | 8.103          | 230 | .000            | 1.79654         | 1.3597                                    | 2.2334 |
| Availability of expertise regardless of physical location    | 42.590         | 230 | .000            | 1.58874         | 1.5152                                    | 1.6622 |
| Improved communications                                      | 49.761         | 230 | .000            | 1.63636         | 1.5716                                    | 1.7012 |
| Faster delivery and Better service and support from supplier | 47.350         | 230 | .000            | 1.63636         | 1.5683                                    | 1.7045 |
| New customers  | 42.989         | 230 | .000            | 1.69697         | 1.6192                                    | 1.7747 |
| Greater customer loyalty                                     | 32.267         | 230 | .000            | 1.58442         | 1.4877                                    | 1.6812 |
| Cost reduction   | 40.504         | 230 | .000            | 1.64069         | 1.5609                                    | 1.7205 |
| Identify New Suppliers                                       | 48.114         | 230 | .000            | 1.63636         | 1.5694                                    | 1.7034 |
| Delivery Reliability   | 42.146         | 230 | .000            | 1.60606         | 1.5310                                    | 1.6811 |
| Improved information   | 47.214         | 230 | .000            | 1.61905         | 1.5515                                    | 1.6866 |
| Better awareness of business environment                     | 47.537         | 230 | .000            | 1.65368         | 1.5851                                    | 1.7222 |
| Technological knowledge                                      | 48.838         | 229 | .000            | 1.64935         | 1.5828                                    | 1.7159 |
| New technology innovation                                    | 45.299         | 230 | .000            | 1.62338         | 1.5528                                    | 1.6940 |
| Enhancement of the managerial capabilities                   | 43.060         | 230 | .000            | 1.61472         | 1.5408                                    | 1.6886 |
| Free the business of technical disruption/delays             | 49.089         | 230 | .000            | 1.65368         | 1.5873                                    | 1.7201 |
| Aid and improve the inter-company communication              | 35.180         | 230 | .000            | 1.56277         | 1.4752                                    | 1.6503 |
| Elimination of geographical restriction and market           | 40.501         | 230 | .000            | 1.57576         | 1.4991                                    | 1.6524 |
| Time reduction of routine service jobs                       | 48.051         | 230 | .000            | 1.64935         | 1.5817                                    | 1.7170 |
| Enhancement of the company's brand image and reputation.     | 56.760         | 230 | .000            | 1.71861         | 1.6590                                    | 1.7783 |
| Overall success in the distribution sector                   | 51.320         | 230 | .000            | 1.70130         | 1.6360                                    | 1.7666 |
| Longevity and sustainability in the market                   | 44.324         | 230 | .000            | 1.67965         | 1.6050                                    | 1.7543 |

As can be seen in Table 9.54, the outcome demonstrates the sample means are very significantly different from the mid-point scale 3.00 ( $P < 0.001$ ) for all the future non-financial performance indicators. The result confirms that all the indicators for distribution firms expected future non-financial performance are on the positive side. Therefore, the researcher can safely accept the hypothesis 6D that expected future non-financial performance is dependent on the E-Marketing adoption by Iranian distribution firms. Based on the previous discussion the four hypotheses related to the impact of E-Marketing adoption by Iranian distribution firms on the marketing performance (hypotheses H6A to H6D) are accepted. Table 9-55 summaries this result.

**Table 9.55:** Results of the Hypotheses Test on the Impact of E-Marketing Adoption by Iranian Distribution Firms on Marketing Performance

| Hypotheses |   | Results         |
|------------|---|-----------------|
| H6A        | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the current financial performance of the firms.             | <b>Accepted</b> |
| H6B        | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the current non-financial performance of the firms.         | <b>Accepted</b> |
| H6C        | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the expected future financial performance of the firms.     | <b>Accepted</b> |
| H6D        | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the expected future non-financial performance of the firms. | <b>Accepted</b> |

## 9.5 E-Marketing Implementation Stage

Within the E-Marketing implementation stage, this study is attempting to investigate the different aspects of E-Marketing implementation by Iranian distribution firms to acquire a better understanding of the levels and tools of E-Marketing deployed by Iranian distribution firms. For this purpose, the statistical analyses for the purified data were conducted to examine different levels and tools of E-Marketing used by Iranian distribution firms. The hypotheses in this section were based on the developed theoretical framework in chapter seven (section 7.4.2). Based on the theoretical framework, the following hypotheses were established to test the different levels and tools of E-Marketing used by Iranian distribution firms (refer to Table 9.56).

**Table 9.56:** Hypotheses Developed to Examine the Different Levels and Tools of E-Marketing Used by Iranian Distribution Firms

| Hypotheses |  |
|------------|--|
| H7A        | When implementing E-Marketing of Iranian Distribution firms, depends on more than one tool of E-Marketing tools.   |
| H7B        | Implementation of E-Marketing is in different implementation levels.   |
| H7C        | Social media marketing and search engine marketing are the most commonly used E-Marketing tools by Iranian Distribution firms when implementing E-Marketing. |

## 9.5.1 Results of Hypotheses Testing

### 9.5.1.1 E-Marketing Tools Hypotheses Testing

As discussed in previous chapter (Chapter 8; Section 8.3.4.2), Iranian distribution firms within this study were using six basic E-Marketing tools to conduct their E-Marketing activities namely: email marketing, intranet marketing, social media marketing, search engine marketing (SEM), and mobile marketing. There are two hypotheses related to tools of implementing E-Marketing (hypotheses H7A and H7C). Table 9.57 illustrates the hypotheses constructed for different E-Marketing g tools.

**Table 9.57:** Hypotheses Developed to Examine the Different Tools of E-Marketing Used by Iranian Distribution Firms

| Hypotheses |  |
|------------|--|
| H7A        | When implementing E-Marketing of Iranian Distribution firms, depends on more than one tool of E-Marketing tools.   |
| H7C        | Social media marketing and search engine marketing are the most commonly used E-Marketing tools by Iranian Distribution firms when implementing E-Marketing. |

Statistical frequencies and one sample t-test were used for testing the two hypotheses. Within this context, the aim of frequency analysis was to find out the distribution of the participating distribution firms according to the E-Marketing tools used by these particular firms in distribution sector. Table 9.58 demonstrates the relative distribution of these five E-Marketing tools among survey respondents.

**Table 9.58:** Distribution of the respondents Distribution Firms' usage of E-mail Marketing, Intranet Marketing, , Search Engine Marketing, Social Media Marketing and Mobile Marketing as E-Marketing tools

| Social Media Marketing |       |           |         |               |                    |
|------------------------|-------|-----------|---------|---------------|--------------------|
|                        |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                  | 0%    | 33        | 14.3    | 14.3          | 14.3               |
|                        | 25%   | 136       | 58.9    | 58.9          | 73.2               |
|                        | 50%   | 44        | 19.0    | 19.0          | 92.2               |
|                        | 75%   | 13        | 5.6     | 5.6           | 97.8               |
|                        | 100%  | 5         | 2.2     | 2.2           | 100.0              |
|                        | Total | 231       | 100.0   | 100.0         |                    |

| Mobile Marketing |       |           |         |               |                    |
|------------------|-------|-----------|---------|---------------|--------------------|
|                  |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid            | 0%    | 41        | 17.7    | 17.7          | 17.7               |
|                  | 25%   | 117       | 50.6    | 50.6          | 68.4               |
|                  | 50%   | 43        | 18.6    | 18.6          | 87.0               |
|                  | 75%   | 22        | 9.5     | 9.5           | 96.5               |
|                  | 100%  | 8         | 3.5     | 3.5           | 100.0              |
|                  | Total | 231       | 100.0   | 100.0         |                    |

| Search Engine Marketing |       |           |         |               |                    |
|-------------------------|-------|-----------|---------|---------------|--------------------|
|                         |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid                   | 0%    | 22        | 9.5     | 9.5           | 9.5                |
|                         | 25%   | 103       | 44.6    | 44.6          | 54.1               |
|                         | 50%   | 50        | 21.6    | 21.6          | 75.8               |
|                         | 75%   | 36        | 15.6    | 15.6          | 91.3               |
|                         | 100%  | 20        | 8.7     | 8.7           | 100.0              |
|                         | Total | 231       | 100.0   | 100.0         |                    |

| Intranet Marketing |       |           |         |               |                    |
|--------------------|-------|-----------|---------|---------------|--------------------|
|                    |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid              | 0%    | 80        | 34.6    | 34.6          | 34.6               |
|                    | 25%   | 123       | 53.2    | 53.2          | 87.9               |
|                    | 50%   | 24        | 10.4    | 10.4          | 98.3               |
|                    | 75%   | 4         | 1.7     | 1.7           | 100.0              |
|                    | Total | 231       | 100.0   | 100.0         |                    |

| E-mail Marketing |       |           |         |               |                    |
|------------------|-------|-----------|---------|---------------|--------------------|
|                  |       | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid            | 0%    | 47        | 20.3    | 20.3          | 20.3               |
|                  | 25%   | 123       | 53.2    | 53.2          | 73.6               |
|                  | 50%   | 43        | 18.6    | 18.6          | 92.2               |
|                  | 75%   | 12        | 5.2     | 5.2           | 97.4               |
|                  | 100%  | 6         | 2.6     | 2.6           | 100.0              |
|                  | Total | 231       | 100.0   | 100.0         |                    |

As can be seen from Table 9.58, 184 of the research respondents (out of 231 Distribution Firms with a percentage of 100% of the total) used E-mail Marketing as an E-Marketing tool. Furthermore, 65.4.7% of the respondents (151 distribution firms) used Intranet Marketing as an E-Marketing tool, 85.7 %, (198 distribution firms) used social media Marketing as an E-Marketing tool, 82.3 % (190 distribution firms) used mobile marketing as an E-Marketing tool, and finally 90.5 % (209 distribution firms) used search engine as an E-Marketing tool. Based on the fact that a significant number of the participated distribution firms used one or more E-Marketing tools, hypothesis H7A is supported as the research participants depended on more than one tool of E-Marketing tools for implementing E-Marketing. To support the previous statistical frequency test, a cross-tabulation was conducted to explore the distribution of the different E-Marketing tools among study respondents. Table 9.59 reviews the outcomes of this cross-tabulation.

As can be seen from table 9.59, 85.7 % of the Iranian distribution firms were using search engine marketing as well as social media marketing as E-Marketing tools. Moreover, 79.6% of respondents were using search engine marketing and e-mail marketing, 65.3% were using arch engine marketing and Intranet marketing, and finally 82.2% were using arch engine marketing and mobile marketing as E-Marketing tools. Hence, the findings support the acceptance of hypothesis H7A.

On the other hand, as can be seen from table 9.59, 90.5 % of the research participants used search engine marketing as an E-Marketing tool and 85.7 % of the respondents used social media marketing as an E-Marketing tool. This shows that search engine marketing and social media marketing are the most commonly used E-Marketing tools by Iranian distribution firms when implementing E-Marketing. Accordingly, hypothesis H7C is supported.

**Table 9.59:** Distribution of the respondents Distribution Firms' usage of E-Mail Marketing, Intranet Marketing, Social Media Marketing, Search Engine Marketing, and Mobile Marketing as E-Marketing tools

|                        |            |            | Search Engine Marketing |       |       |       |       | Total |
|------------------------|------------|------------|-------------------------|-------|-------|-------|-------|-------|
|                        |            |            | 0%                      | 25%   | 50%   | 75%   | 100%  |       |
| E-mail Marketing       | 0%         | Count      | 5                       | 20    | 11    | 9     | 2     | 47    |
|                        |            | % Of Total | 2.2%                    | 8.7%  | 4.8%  | 3.9%  | 0.9%  | 20.3% |
|                        | 25%        | Count      | 14                      | 59    | 24    | 16    | 10    | 123   |
|                        |            | % Of Total | 6.1%                    | 25.5% | 10.4% | 6.9%  | 4.3%  | 53.2% |
|                        | 50%        | Count      | 3                       | 15    | 10    | 9     | 6     | 43    |
|                        |            | % Of Total | 1.3%                    | 6.5%  | 4.3%  | 3.9%  | 2.6%  | 18.6% |
|                        | 75%        | Count      | 0                       | 8     | 2     | 1     | 1     | 12    |
|                        |            | % Of Total | 0.0%                    | 3.5%  | 0.9%  | 0.4%  | 0.4%  | 5.2%  |
| 100%                   | Count      | 0          | 1                       | 3     | 1     | 1     | 6     |       |
|                        | % Of Total | 0.0%       | 0.4%                    | 1.3%  | 0.4%  | 0.4%  | 2.6%  |       |
| Total                  |            | Count      | 41                      | 22    | 103   | 50    | 36    | 20    |
|                        |            | % Of Total | 17.7%                   | 9.5%  | 44.6% | 21.6% | 15.6% | 8.7%  |
|                        |            |            | Search Engine Marketing |       |       |       |       | Total |
|                        |            |            | 0%                      | 25%   | 50%   | 75%   | 100%  |       |
| Intranet Marketing     | 0%         | Count      | 15                      | 37    | 15    | 12    | 1     | 80    |
|                        |            | % of Total | 6.5%                    | 16.0% | 6.5%  | 5.2%  | 0.4%  | 34.6% |
|                        | 25%        | Count      | 5                       | 51    | 32    | 19    | 16    | 123   |
|                        |            | % of Total | 2.2%                    | 22.1% | 13.9% | 8.2%  | 6.9%  | 53.2% |
|                        | 50%        | Count      | 2                       | 14    | 1     | 5     | 2     | 24    |
|                        |            | % of Total | 0.9%                    | 6.1%  | 0.4%  | 2.2%  | 0.9%  | 10.4% |
|                        | 75%        | Count      | 0                       | 1     | 2     | 0     | 1     | 4     |
|                        |            | % Of Total | 0.0%                    | 0.4%  | 0.9%  | 0.0%  | 0.4%  | 1.7%  |
| Total                  |            | Count      | 41                      | 22    | 103   | 50    | 36    | 20    |
|                        |            | % Of Total | 17.7%                   | 9.5%  | 44.6% | 21.6% | 15.6% | 8.7%  |
|                        |            |            | Search Engine Marketing |       |       |       |       | Total |
|                        |            |            | 0%                      | 25%   | 50%   | 75%   | 100%  |       |
| Social Media Marketing | 0%         | Count      | 7                       | 17    | 5     | 3     | 1     | 33    |
|                        |            | % of Total | 3.0%                    | 7.4%  | 2.2%  | 1.3%  | 0.4%  | 14.3% |
|                        | 25%        | Count      | 11                      | 63    | 27    | 23    | 12    | 136   |
|                        |            | % of Total | 4.8%                    | 27.3% | 11.7% | 10.0% | 5.2%  | 58.9% |
|                        | 50%        | Count      | 1                       | 15    | 13    | 9     | 6     | 44    |
|                        |            | % of Total | 0.4%                    | 6.5%  | 5.6%  | 3.9%  | 2.6%  | 19.0% |
|                        | 75%        | Count      | 3                       | 5     | 4     | 0     | 1     | 13    |
|                        |            | % of Total | 1.3%                    | 2.2%  | 1.7%  | 0.0%  | 0.4%  | 5.6%  |
| 100%                   | Count      | 0          | 3                       | 1     | 1     | 0     | 5     |       |
|                        | % of Total | 0.0%       | 1.3%                    | 0.4%  | 0.4%  | 0.0%  | 2.2%  |       |
| Total                  |            | Count      | 41                      | 22    | 103   | 50    | 36    | 20    |
|                        |            | % of Total | 17.7%                   | 9.5%  | 44.6% | 21.6% | 15.6% | 8.7%  |
|                        |            |            | Search Engine Marketing |       |       |       |       | Total |
|                        |            |            | 0%                      | 25%   | 50%   | 75%   | 100%  |       |
| Mobile Marketing       | 0%         | Count      | 12                      | 12    | 10    | 6     | 1     | 41    |
|                        |            | % of Total | 5.2%                    | 5.2%  | 4.3%  | 2.6%  | 0.4%  | 17.7% |
|                        | 25%        | Count      | 9                       | 70    | 17    | 19    | 2     | 117   |
|                        |            | % of Total | 3.9%                    | 30.3% | 7.4%  | 8.2%  | 0.9%  | 50.6% |
|                        | 50%        | Count      | 1                       | 15    | 17    | 7     | 3     | 43    |
|                        |            | % of Total | 0.4%                    | 6.5%  | 7.4%  | 3.0%  | 1.3%  | 18.6% |

|       |            |       |      |       |       |       |      |
|-------|------------|-------|------|-------|-------|-------|------|
| 75%   | Count      | 0     | 5    | 5     | 4     | 8     | 22   |
|       | % of Total | 0.0%  | 2.2% | 2.2%  | 1.7%  | 3.5%  | 9.5% |
| 100%  | Count      | 0     | 1    | 1     | 0     | 6     | 8    |
|       | % of Total | 0.0%  | 0.4% | 0.4%  | 0.0%  | 2.6%  | 3.5% |
| Total | Count      | 41    | 22   | 103   | 50    | 36    | 20   |
|       | % of Total | 17.7% | 9.5% | 44.6% | 21.6% | 15.6% | 8.7% |

Furthermore, one-sample t-test was conducted to investigate whether the observed means of E-Marketing tools are significantly different from the mid-point of the scale. The outcomes are demonstrated in Table 9.60.

**Table 9.60:** One sample t-test results of statistical significance of E-Marketing tools

|                         | Test Value = 1 |     |                 |                 |   |        |
|-------------------------|----------------|-----|-----------------|-----------------|---|--------|
|                         | t              | df  | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |        |
|                         |                |     |                 |                 | Lower                                     | Upper  |
| Search Engine Marketing | 23.103         | 230 | .000            | 1.69264         | 1.5483                                    | 1.8370 |
| Social Media Marketing  | 22.166         | 230 | .000            | 1.22511         | 1.1162                                    | 1.3340 |
| Mobile Marketing        | 20.122         | 230 | .000            | 1.30303         | 1.1754                                    | 1.4306 |
| E-mail Marketing        | 19.695         | 230 | .000            | 1.16450         | 1.0480                                    | 1.2810 |
| Intranet Marketing      | 17.409         | 230 | .000            | .79221          | .7025                                     | .8819  |

As can be seen in table 9.60, the outcomes are found to be significantly different from the mid-point scale of 1.0 ( $p < 0.001$ ). This approves that almost all the tools used for E-Marketing are in the positive side. It is also remarked that the confidence interval of the difference in the case of in-bound marketing is higher than other tools. Therefore, the acceptance of hypothesis H7C is confirmed since search engine marketing and social media marketing are the most commonly used E-Marketing tools by Iranian distribution firms.

### 9.5.1.2 E-Marketing Implementation Levels Hypotheses Testing

As argued briefly in chapter seven, there are four levels of E-Marketing implementation which are level zero (no implementation), level 1 which is low implementation (Internet Presence), level 2 which is medium implementation (Prospecting) and level 3 which is high implementation (Business integration). There is one hypothesis developed to the level of E-Marketing implementation by Iranian distribution firms (hypothesis H7B).

**Table 9.61:** Hypotheses Developed to Examine the Distribution of Different Implementation levels of E-Marketing Used by Iranian Distribution Firms

| Hypotheses |  |
|------------|--|
| H7B        | Implementation of E-Marketing is in different implementation levels. |

This hypothesis was tested through frequency analysis. Table 9.62 illustrates the distribution of the research participants according to their level of E-Marketing implementation.

**Table 9.62:** The distribution of the research Participants according to the level of E-Marketing implementation

|       |   | Frequency | Valid Percent | Cumulative Percent |
|-------|---|-----------|---------------|--------------------|
| Valid | Level 1 Implementation (Internet Presence)    | 54        | 23.5%         | 23.5               |
|       | Level 2 Implementation (Prospecting)          | 62        | 26.8%         | 76.5               |
|       | Level 3 Implementation (Business Integration) | 115       | 49.7%         | 100.0              |
|       | Total   | 231       | 100.0         |                    |

As can be seen in table 9.62, all research participants were implementing E-Marketing. Remarkably, majority of the research participants 49.7 % (115 distribution firms) were in level three of E-Marketing implementation in a high level. On the other hand, 62 distribution firms, which is 26.8 % of the total participants, were in level two of E-Marketing implementation in a medium level followed by 23.5 % of the research participants (54 distribution firms) with a low implementation level or in level one. Based on the results, hypothesis H7B is accepted since the distribution firms implement E-Marketing in different implementation levels. Table 9.63 shows the outcomes of the hypotheses related to the E-Marketing implementation stage.

**Table 9.63:** Summary of the hypotheses Outcomes related to E-Marketing implementation stage

| Hypotheses |  | Results  |
|------------|--|----------|
| H7A        | When implementing E-Marketing of Iranian Distribution firms, depends on more than one tool of E-Marketing tools.   | Accepted |
| H7B        | Implementation of E-Marketing is in different implementation levels.   | Accepted |
| H7C        | Social media marketing and search engine marketing are the most commonly used E-Marketing tools by Iranian Distribution firms when implementing E-Marketing. | Accepted |

## 9.6 Chapter Summary

In this chapter, the researcher focuses on the results from the inferential data analysis (qualitative phase of the study) that implemented on the data obtained from the Iranian distribution firms. The aim on conducting the inferential data analysis was to substantiate the theoretical framework and the various developed hypotheses that developed from the extant review of the literature and the qualitative phase of the study. The primary data was collected through the survey questionnaire from the sample size of 231 research participants (Owners/Managers/Top managers) of Iranian distribution firms' that already involved in E-Marketing adoption. The inferential data analysis was conducted through two statistical analysis tools which were i) SPSS –version 24 (The Statistical Package for Social Sciences) and ii) SPSS AMOS- version 24 (The Analysis of Moment Structure). To test the developed hypotheses, several analysis methods were conducted in this chapter such as Cronbach alpha and the item-to-total correlation to check the reliability of the items, multiple regression, and simple linear regression analysis for testing the relationships and finally one sample T-Test. subsequently the findings from the analysis were discussed in detail.

The chapter started by using the validity and reliability of the instrument for the purpose of the hypotheses tests. in order to test the validity and reliability of the instrument, the researcher implemented Cronbach alpha and the item-to-total correlation to examine the acceptable Scale dimensions. The study found that the item-to-total correlation value of all items were at an acceptable level, ranged from 0.303 to 0.887 and the significantly acceptable reliability coefficient of all items for explanation of the investigated variables, the Cronbach alpha ranged from 0.701 to 0.928. These results demonstrate that the item-to-total correlation and the Cronbach alpha values are higher than the accepted value in the research field. Therefore, the reliability of the items is significantly acceptable for testing the developed hypotheses.

The inferential statistical analysis was conducted in two stages. Each phase was dedicated to answer the research questions. The purpose of first phase of the analysis, were to investigate the different influencing factors of E-Marketing adoption by Iranian distribution firms. In this stage, factors related to environmental attributes, individual factors, organisational factors, and Technological attributes were examined on its relationship to the E-Marketing adoption by Iranian distribution firms. This phase was involved of various analysis techniques such as multiple regression and simple linear regression analysis to investigate the impact of each factor

on the internet adoption of Iranian distribution firms. Subsequently, the second part of this stage were dedicated to answer the second research question which was related to the mediating role of the external related factors including the technological attributes and environmental attributes (The Business Partner Affiliation, the intensity of national e-readiness and the external IT support) in between the internal related factors (individual factors and organisational factors) and E-Marketing adoption by Iranian distribution firms. In this part, structural equation modelling was implemented to examine the mediating role of the four factors in the relationship.

The second phase of the hypotheses testing was involved with testing the impact of the E-Marketing adoption on marketing performance of the Iranian distribution firms (include the current and the future financial and non-financial performance) of the Iranian distribution firms. In this section the developed hypotheses were tested through the simple linear regression and one sample t-test.

Within the first stage of examining of the influencing factors of E-Marketing adoption by Iranian distribution firms, there were four different models were developed to examine the factors. Within the first model the impact of the environmental related factors were investigated. At this point the multiple regression analysis and one simple linear regression were conducted for examining the contribution of three variables related to the environmental attributes to E-Marketing adoption by Iranian distribution firms. In the second, model the impact of individual related factors were investigated. The research conducted the multiple regression and simple linear regression to test the contribution of five variables related to individual factors to E-Marketing adoption. In the third model the impact of the organisation related factors was investigated. In this analysis, eight variables were tested on the contribution to E-Marketing adoption by conducting the multiple regression and one simple linear regression. Finally, in the fourth model, the impact of technological attributes was investigated. The five variables related to technological attributes were tested by conducting the multiple regression and simple linear regression on the relationship to E-Marketing adoption by Iranian distribution firms.

In the second phase of the first part, the inferential analysis was involved with investigation of the direct and indirect relationships of the influencing factors of E-Marketing adoption by Iranian distribution firms. These analyses were conducted due to the results of the four models of the first part. Although all the factors evidenced to have a significant contribution to the E-

Marketing adoption of Iranian distribution firms, yet not all the proposed dimensions were found significant when interacted with other variables. Moreover, there is a need to understand the role of the external factors, which involves the environmental and technological related factors as mediator in between the internal factors and E-Marketing adoption according to the literature review. Therefore, it was practical to do further analysis by using the advanced statistical method through the path analysis through structural equation modelling.

The findings from the first part of the first phase analysis demonstrated that all factors related to the environmental attributes, individual factors, organisational factors, and technological attributes contribute to E-Marketing adoption by Iranian distribution firms in this study. Furthermore, the research found that 20 variables related to these four factors (except one variable related to the environmental attributes) explain the E-Marketing adoption in a good way. On the other hand, one variable related to environmental attributes (the intensity of national e-readiness) do not contribute to E-Marketing adoption by Iranian distribution firms. Yet, the path analyses results showed that technological attributes, the intensity of national e-readiness and the external IT support occur as mediators in the relationship between individual factors and E-Marketing adoption; also, the path analyses results showed that technological attributes and external IT support occur as mediators in the relationship between organisational factors and E-Marketing adoption, whilst The Business Partner Affiliation does not mediate the relationship between individual factors and E-Marketing adoption as long as The Business Partner Affiliation and the intensity of national e-readiness do not mediate the relationship between the organisational factors and E-Marketing adoption of Iranian distribution firms. The outcomes indicate a great role of technological attributes, the intensity of national e-readiness and the external IT support in the adoption of E-Marketing by Iranian distribution firms.

The findings in regard of E-Marketing implementation stage demonstrate that when implementing E-Marketing in distribution firms, depend on more than one E-Marketing tools and the social media marketing and search engine marketing are the most commonly used E-Marketing tools by Iranian distribution firms. Moreover, it was found that the Iranian distribution firms implement E-Marketing in different levels of implementation. Finally, in regard of the impact of E-Marketing adoption on the marketing performance of the Iranian distribution firms, the research found that the E-Marketing adoption has a great impact on the Iranian distribution firms' the current and the future financial and non-financial performance.

Table 9.64 shows the summary of the outcome of the hypothesis's tests within this inferential data analyses conducted in this chapter.

**Table 9.64:** Overall Results of the Hypotheses Tests within this research

| Hypotheses |  | Results         |
|------------|--|-----------------|
| H1A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on The Business Partner Affiliation.  | <i>Accepted</i> |
| H1B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Intensity of organisations' national e-readiness   | <i>Accepted</i> |
| H1C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the external IT support.   | <i>Rejected</i> |
| H2A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the normative social influences.   | <i>Accepted</i> |
| H2B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the owner/manager support.   | <i>Accepted</i> |
| H2C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing perceived ease of use.   | <i>Accepted</i> |
| H2D        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Job fit with PC use.   | <i>Accepted</i> |
| H2E        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the consequences of the long-terms of PC use.  | <i>Accepted</i> |
| H3A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the employees' IT knowledge.   | <i>Rejected</i> |
| H3B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Management's IT Knowledge.   | <i>Accepted</i> |
| H3C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on organisation's Culture.  | <i>Rejected</i> |
| H3D        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the intensity of e-readiness of the organisation.  | <i>Rejected</i> |
| H3E        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on having receptivity toward change by new technology.  | <i>Rejected</i> |
| H3F        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on marketing capabilities of the organisation.  | <i>Accepted</i> |
| H3G        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on degree of formalisation of the organisation.   | <i>Accepted</i> |
| H3H        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the degree of decentralisation.  | <i>Accepted</i> |
| H4A        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Physical Infrastructures and Sufficient Accessibility to Internet Resources.   | <i>Accepted</i> |
| H4B        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on cost effects through the adoption.   | <i>Accepted</i> |
| H4C        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on the Perceived Benefits of ICT.   | <i>Rejected</i> |
| H4D        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing Perceived Compatibility.   | <i>Accepted</i> |
| H4E        | Adoption of E-Marketing by Iranian Distribution Firms is dependent on E-Marketing perceived relative advantage.  | <i>Rejected</i> |
| H5A        | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on E-Marketing adoption of Iranian distribution firms.     | <i>Accepted</i> |
| H5B        | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on technological attributes by Iranian distribution firms. | <i>Accepted</i> |

|     |  |                 |
|-----|--|-----------------|
| H5C | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on The Business Partner Affiliation.   | <i>Rejected</i> |
| H5D | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on the intensity of national e-readiness.  | <i>Accepted</i> |
| H5E | Normative social influences, Owner/Manager support, Perceived Ease of use, Job fit with PC use and Long-term consequence of PC use have a positive impact on external IT support.  | <i>Accepted</i> |
| H5F | Adopting E-Marketing by Iranian distribution firms is dependent on Technological attributes.   | <i>Accepted</i> |
| H5G | Adopting E-Marketing by Iranian distribution firms is dependent on The Business Partner Affiliation.   | <i>Rejected</i> |
| H5H | Adopting E-Marketing by Iranian distribution firms is dependent on the intensity of national e-readiness.  | <i>Accepted</i> |
| H5I | Adopting E-Marketing by Iranian distribution firms is dependent on external IT support.  | <i>Accepted</i> |
| H5J | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on E-Marketing adoption of Iranian distribution firms.     | <i>Rejected</i> |
| H5K | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on technological attributes by Iranian distribution firms. | <i>Accepted</i> |
| H5L | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on The Business Partner Affiliation.                       | <i>Rejected</i> |
| H5M | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on the intensity of national e-readiness.                  | <i>Rejected</i> |
| H5N | Employees IT knowledge, Management IT knowledge, Organisation's culture, Organisation e-readiness, Receptivity toward change, Marketing Capabilities of the Organisation, Degree of Formalisation, the degree of decentralisation has a positive impact on external IT support.                                    | <i>Accepted</i> |
| H5O | Technological attributes mediate the relationship between organisational factors and E-Marketing adoption.   | <i>Accepted</i> |
| H5P | The Business Partner Affiliation mediates the relationship between organisational factors and E-Marketing adoption.  | <i>Rejected</i> |
| H5Q | The intensity of national e-readiness mediates the relationship between organisational factors and E-Marketing adoption.   | <i>Rejected</i> |
| H5R | External IT support mediates the relationship between organisational factors and E-Marketing adoption.   | <i>Accepted</i> |
| H5S | Technological attributes mediate the relationship between Individual factors and E-Marketing adoption.   | <i>Accepted</i> |
| H5T | The Business Partner Affiliation mediates the relationship between Individual factors and E-Marketing adoption.  | <i>Rejected</i> |
| H5U | The intensity of national e-readiness mediates the relationship between Individual factors and E-Marketing adoption.   | <i>Accepted</i> |
| H5V | External IT support mediates the relationship between Individual factors and E-Marketing adoption.   | <i>Accepted</i> |
| H6A | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the current financial performance of the firms.  | <i>Accepted</i> |
| H6B | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the current non-financial performance of the firms.  | <i>Accepted</i> |

|     |  |                 |
|-----|--|-----------------|
| H6C | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the expected future financial performance of the firms.                          | <i>Accepted</i> |
| H6D | E-Marketing adoption by Iranian Distribution Firms has a positive impact on the expected future non-financial performance of the firms.                      | <i>Accepted</i> |
| H7A | When implementing E-Marketing of Iranian Distribution firms, depends on more than one tool of E-Marketing tools.   | <i>Accepted</i> |
| H7B | Implementation of E-Marketing is in different implementation levels.   | <i>Accepted</i> |
| H7C | Social media marketing and search engine marketing are the most commonly used E-Marketing tools by Iranian Distribution firms when implementing E-Marketing. | <i>Accepted</i> |

Hence, these research findings provide a better understanding of E-Marketing adoption and the impact on marketing performance of Iranian distribution firms. The discussion on the interpretations of the results is discussed in detail in the following chapter (Chapter 10).

## Chapter 10: Interpretation and Discussion on the Findings

### 10.1 Introduction

This chapter discusses the results of the qualitative and quantitative phase of the study which is based on the hypotheses testing presented in the previous Chapter nine. Consequently, the results were compared to previous literatures in the research area. The discussion and interpretation of quantitative results are presented in three different phases which are: i) key findings of E-Marketing adoption stage; ii) key findings of the impacts of E-Marketing adoption on Iranian distribution firms' marketing performance, and iii) Key Findings of E- Marketing Implementation.

### 10.2 Key Findings of the Study

The next section describe the key findings of both Qualitative and Quantitative findings of the study.

#### 10.2.1 Key Findings of Qualitative Phase

From reviewing the previous studies and the extant literature, 43 factors have derived related to environmental, individual, organisational, technological, and legal and regulatory characteristics. Afterwards, to re-examine these variables, the study has concluded the exploratory interviews of qualitative phase to purify factors that are appropriate to Iranian firms' context. Analysed collected data generated from the interviews, the primary developed survey, and the conducted interviews demonstrated that not all the 43 factors investigated from the systematic review of the literature have a significant impact on the adoption of E-Marketing by Iranian distribution firms. The results from the exploratory phase found 21 factors suit to describe the E-Marketing adoption of Iranian distribution firms.

First, conducted exploratory interviews found the environmental related factors influenced the adoption of E-Marketing of Iranian distribution firms in this research. The factors regarding the environmental characteristics contain: The Business Partner Affiliation; National E-Readiness; and External IT Support or Technology Consultants' Involvement.

Second, the research found factors related to individual characteristics influenced the E-Marketing adoption of Iranian distribution firms. The five important factors relate to individual

characteristics include Owner/Manager Support (Involvement); Perceived Ease of Use; Normative Social Influences; Job Fit with PC Use; and Long-Term Consequences of PC Use.

Third, distribution firms in this study due to considering various factors related to organisational characteristics' factors include Organisation's E-Readiness; Organisation's Culture; Receptivity (Attitude) Toward Change; Marketing Capabilities of The Organisation.; Level of Decentralisation; Degree of Formalisation; Employees IT Knowledge; and Management IT Knowledge.

Fourth, the research found factors related to technological characteristics influenced the E-Marketing adoption of Iranian distribution firms. The five important factors relate to technological characteristics include Sufficient Accessibility to Internet Resources; Cost Effects; Perceived Benefits; Compatibility; and Relative Advantage.

Fifth, the study found no important factor influenced the E-Marketing adoption of Iranian distribution firms in legal and regulatory characteristics and found Lack of Technology Legislation (Copyright protection issue, Transaction issues, Trademark Security Problem) and Guidance as not an influencing factor for adoption of E-Marketing in Iranian distribution firms' context.

Sixth, the research found that there was positive impact of E-Marketing adoption on the Distribution firms' performance. The measures of the performance including financial and non-financial performance such as the growth of the organisations' profitability and sales, the satisfaction of the both employees and owner/manager on the adoption and implementation of E-Marketing, expanding the business to online environment, increased knowledge of employees, and internals resulting from the online activities.

43 factors influencing Iranian distribution firms' E-Marketing adoption gained from a systematic review of the literature were utilised as guidance to understand the research context. However, the exploratory results show only 21 factors appropriate to explain factors influencing Iranian distribution firms to adopt and implement E-Marketing. Hence, it was confirmed that the exploratory process is vital as one of the main goals of the research is to investigate the influencing factors of E-Marketing adoption of Iranian firms in distribution sector. With the aim of exploring the leverage facts that could be adopted and result into a great usage of E-

Marketing as a tool for achieving better marketing performance, and to demonstrate how this study fits alongside prior studies in this context.

Thus, the qualitative findings led to answer the first, and second questions of the study. To answer the first question, this research has reviewed the extant literature systematically. For this study, numerous resources have been. Hence, an integrated model of these theories combined to understand the E-Marketing adoption of Iranian distribution firms. The main purpose of the review of these resources, case studies and articles, was to identify the variables that may influence the adoption of E-Marketing by Iranian distribution firms. Therefore, from reviewing the previous studies has derived 43 factors related to environmental, individual, organisational, technological, and legal and regulatory characteristics. Afterwards, the study has concluded the exploratory interviews of qualitative phase to purify factors that are appropriate to Iranian firms' context. The results from the exploratory phase found 21 factors suit to describe the E-Marketing adoption of Iranian distribution firms. Though, to develop the validity, this research needed to conduct a statistical examination on these final 21 factors tested by various statistical analysis such as multiple and linear regression with SPSS software in the second phase. Moreover, to answer the second question, several resources and articles, case studies, and empirical research on E-Marketing, mobile marketing, social media marketing, search engine marketing, e-commerce and e-business were reviewed.

The findings by reviewing the extant literature identified various tools and levels of E-Marketing implementation. These factors were categorised into two groups namely: E-Marketing tools, and E-Marketing implementation levels. The tools and levels were resulted from the exploratory interviews and the review of the literature. Thus, answering the first and second questions from the key findings of the qualitative phase met the first and third objectives of this study which later re-examined and tested in quantitative phase. The key findings of qualitative phase were also led to develop the conceptual framework which met the fifth objective of the study which was to develop a conceptual framework to understand and interpret the relationship between Electronic Marketing adoption and distribution firms' marketing performance. The study has established a comprehensive research framework from the result of the exploratory findings which entail three phases including: i) identifying determinants of distribution firms' E-Marketing adoption by Iranian firms in distribution sector; ii) the impacts of E-Marketing adoption on Iranian distribution firms' marketing performance, and iii) the E-Marketing implementation tools (see chapter 6, figure 6.9, page 317; and chapter 7, figure 7.2,

page 350). Consequently, this study has been achieved the research aims and objectives. This study to address the objectives, deployed a triangulation approach, initiated from an in-depth review of the extant literature by systematically commencing from prior studies with the field, Consequently, to purify the findings from the review of the extant literature, the researcher conducted in-depth semi-structured interviews. This study has developed the conceptual framework and hypotheses by relying on the findings from the exploratory interviews. Therefore, the study achieves the fifth objective of the study:

First, this research deployed the integrative theoretical model, as this model could describe factors of distribution firms' E-Marketing adoption in a wider perspective comprising environmental, individual, organisational, and technological related factors. This framework integrates six theories of new technology adoption. Out of the new technology theories, twenty-one determinants of internet adoption have been discovered in exploratory phase; and re observed statistically to suit to the current study context.

Second, in regard of E-Marketing implementation measures, this research deployed five tools of E-Marketing including i) search engine marketing; ii) social media marketing; iii) mobile marketing; iv) intranet marketing; and v) e-mail marketing. Moreover, three level of E-Marketing implementation adopted from Teo and Pian (2003) and NCC (2009) including i) level 1: internet presence; ii) level 2: prospecting; and iii) level 3: business integration.

Third, in regards of current and future marketing performance measures (adopted from Ramsey and McCole, 2005), this study considers both financial and non-financial perspectives. Thus, to develop the validity of these 21 factors, this research conducted a statistical examination on these final 21 factors which then tested by various statistical analysis such as multiple and linear regression with SPSS software and SPSS AMOS. Next section is the key findings of the quantitative phase of the study.

### **10.2.2 Key Findings of Quantitative Phase**

This part contains of 3 parts: i) key findings of E-Marketing adoption stage; ii) key findings of the impacts of E-Marketing adoption on Iranian distribution firms' marketing performance, and iii) Key Findings of E- Marketing Implementation.

### i) Key Findings of E-Marketing Adoption Stage

The key findings 1, 2, 3, and 4 answered the first research question. These key findings are derived from conducting various tests such as multiple regression, simple linear regression, one sample T-test to find the influencing factors of E-Marketing adoption and to test the impact of the factors related to environmental, individual, organisational and technological on E-Marketing adoption by Iranian distribution firms. The key findings 5 has answered the third research question which derived from running the Structural Equation Modelling to examine the role of external related factors in mediating the relationship between internal related factors and E-Marketing adoption.

To confirm the conceptual framework, A combination of online and traditional mail survey questionnaire was conducted to examine the study hypotheses empirically. The study analysed 231 data collected from survey questionnaire with several statistical methods containing of Cronbach-Alpha test, simple linear and multiple regression, one sample T-Test, and structural equation modelling (SEM) and found that determinants factors of E-Marketing adoption of Iranian distribution firms are vary. All measures related to environmental, individual, organisational, and technological characteristic have a significant relationship to E-Marketing adoption by Iranian distribution firms. The study also found technological attributes, and the external IT support mediate the relationship between organisational factors and E-Marketing adoption as well as technological attributes, the intensity of national e-readiness, and external IT support mediate the relationship between Individual factors and E-Marketing adoption by Iranian distribution firms. Hence the study achieves to the first and second objectives.

### ii) Key Findings of the Impacts of E-Marketing Adoption on Iranian Distribution Firms' Marketing Performance

The key findings in this section answered the fourth research question, which is related to impact of E-Marketing adoption on current and future marketing performance of both financial and non-financial measures of Iranian distribution firms, simple linear regression and one sample T-test were implemented. Finally, E-Marketing adoption is found positively significant in impacting current and future marketing performance (both financial and non-financial measures) of distribution firms in Iran. This result, therefore, achieve the fourth objective of the study.

### iii) Key Findings of E- Marketing Implementation

The key findings in this section answered the third question of this study, several articles, empirical studies, and secondary case studies on Electronic Marketing, Mobile Marketing, Social Media Marketing, Search Engine Marketing, -E-Mail marketing, E-Commerce and E-Business were studied. The results of these review and both exploratory and quantitative phases were identified tools, and levels of Electronic Marketing implementation in Iran. The findings indicate that Social Media Marketing and Search Engine Marketing are the most commonly used Electronic Marketing tools, and the majority of distribution firms in Iran are in level three of E-Marketing implementation. This also addressed the third and sixth objectives of the study.

#### **10.2.2.1 Key Findings on E-Marketing Adoption**

One of the main purposes of this study is to identify the influencing factors, contributing to the E-Marketing adoption of Iranian distribution firms. Therefore, for that purpose, a survey questionnaire was developed and conducted on 231 Iranian distribution firms' owner/managers and top managers that have expanded their business activities into the online environment. By relying on the analyses of the collected data, this study presented the results regarding the investigation on the influencing factors of E-Marketing adoption by Iranian distribution firms in the first part of chapter 9.

In the E-Marketing adoption stage, the examination was divided into 2 phases, which were an investigation, on the factors influencing Iranian distribution firms' E-Marketing adoption and an investigation on the role of the external related factors in mediating the relationship between the internal related factors and E-Marketing adoption by Iranian distribution firms.

In the first part, the role of the influencing factors on E-Marketing adoption were tested in four different regression models which include: i) The impact of the environmental related factors on E-Marketing adoption by Iranian distribution firms; ii) The impact of the individual related factors on E-Marketing adoption by Iranian distribution firms; iii) The impact of organisational related factors on E-Marketing adoption by Iranian distribution firms; and iv) The impact of technological attributes on E-Marketing adoption by Iranian distribution firms.

In the second part, this study examined the inter-relationships between the influencing factors of E-Marketing adoption by Iranian distribution firms. Moreover, the study investigated the role

of the external related factors in mediating the relationship of internal related factors and E-Marketing adoption. The next sub-sections are the discussions on the findings of each analysis.

### **Findings 1: Environmental Context**

As suggested by Rabie (2013) and Shemi (2012), future studies need to take into consideration of investigating more of the environmental factors that impact on adoption of new technology, due to their uncontrollable nature. They mentioned that the studies conducted in this context are insufficient and there seemed a lack of knowledge and awareness about the environment factors that leading to the relinquishment of adoption. To develop a comprehensive understanding of this approach, future research ought to investigate the factors leading to leaving behind the adoption of technology innovations. The research investigated the impact of environmental factors (uncontrollable and external context) on E-Marketing adoption by using multiple regression analysis and simple linear regression methods. Based on the multiple regression and linear regression analysis that conducted in Model 1 (Environmental factors impact on E-Marketing adoption of Iranian distribution firms), the study found that all three factors related to environmental attributes tested in this research, contribute to the E-Marketing adoption by Iranian distribution firms. Hence, there is a significant positive relationship between E-Marketing adoption and the factors related to environmental attributes. The variables tested within this factor involved: i) The Business Partner Affiliation; ii) The intensity of national e-readiness; and iii) The external IT support.

According to the analyses, the model fit with the adjusted  $R_2$  of 0.207 indicating that, the examined variation of E-Marketing adoption is 21% explained by variables related to the environmental factors. Moreover, the Beta weights showed that the strongest variable that explains the E-Marketing adoption by Iranian distribution firms is the Business Partner Affiliation ( $B=0.199$ ), followed by the intensity of national e-readiness ( $B=0.174$ ) and external IT support ( $B=0.158$ ). Taking into consideration of the uncertainty, turbulent and the complex business environment in developing countries, Various scholars (Lin *et al.*, 2017; Rahayu, 2015; Rabie, 2013; Shemi *et al.*, 2013; Abualrob, 2016; and Osakwe *et al.*, 2016) highlighted that the external environmental factors have significant role on the adoption of E-Marketing as an uncontrollable factor. The environmental factor is tested in the current study within the context of Iranian distribution firms that have already applied the adoption and integrated E-Marketing with their business successfully through several E-Marketing tools.

The Business Partner Affiliation, which adopted from the TOE framework, is the most essential factor that predicts E-Marketing adoption by Iranian distribution firms in Model 1. This result is consistent with previous research works such as Chiu (2017) who found through survey questionnaire that, business partners such as suppliers, customers, or trading partners in the environment context indicated a significant positive relationship result. Also, in the research conducted by Lin (2014), and Le *et al.* (2012), found that business partners which is the relationship of the firm with its suppliers and customers has a significant positive impact on the adoption which supports the result of this study in Model 1 related to the business partners. In a research conducted by Wilson *et al.* (2008), in UK SMEs, found a significant positive relationship of the business partner that necessitate the adoption of E-Marketing in firms. Equally, this does limit the contribution of small corporations, if their business partner does not value strategic E-Marketing innovations or are negatively affected, due to other internal and external challenge within the outside environment. This is also consistent with the findings of previous study by Teo, Lin and Lai (2009) who found that, key trading partners significantly impact on the adoption of E-Marketing. On the other hand, this finding is not consistent with the study conducted by Rahayu (2015) in Indonesia found that firms in Indonesia are not impact by business partner in regard of the adoption of E-Marketing. As the business partners either the suppliers or the customers are not strong enough for pushing the Indonesian firms to integrate the business strategies with new technologies. Hence, this current study extends and deepens the understanding of the role of the business partners as an influencing factor of E-Marketing adoption by Iranian distribution firms through survey questionnaires conducted.

The intensity for national e-readiness which is the factor from a recently established theory called the perceived e-readiness model (PERM) by Molla and Licker (2005a,2005b) developed for emerging countries, is the second most crucial factor predicting the E-Marketing adoption by Iranian distribution firms in a good way. As discussed earlier in chapter four, the intensity of national e-readiness as well as referring to the resources is also referring to the skilled employees (Peng and Kurnia, 2008). Although the impact of this factor was not significant in multiple regression with two other factors, to support the findings the individual influence of this factor on the adoption of E-Marketing by Iranian distribution firms was investigated through conducting one simple regression analysis. The aim of this was to determine the significance of the independent variable in relation with the dependent variable (E-Marketing adoption). The results showed that the intensity of national e-readiness alone shows a significant positive relationship with E-Marketing adoption. This recommends that, this variable with the

other two variables in the multiple regression analysis, the influence of the intensity of national e-readiness on E-Marketing adoption was overshadowed. The result is consistent with previous findings conducted by Shemi (2012); and Molla and Licker (2005a) who found a positive relationship of the national e-readiness with the adoption of e-commerce. Similarly, Bui *et al.* (2003) found that the higher the intensity of national e-readiness, the higher is each firms' ability to compete with the new digital economy against the industry and the competitors. Martinsons, (2008) also found the positive relationship of the national e-readiness in directing and guiding the firms and stakeholders in the adoption of E-Marketing.

The decrease in IT costs has directly affected on firms' ability to develop and prepare websites for online activities. Conversely, the national statistics as indicated in the GITR (2019) state that Iran's e-readiness have surpassed among Middle Eastern countries. In another study conducted by Al-Somali (2011) found this factor has a positive impact on the adoption of E-Commerce by Indonesian firms. He (*ibid*) stated that e-readiness not always relates to the technology but relates to the human resource and the readiness within the country and people. Other previous studies such as Ahmed and Hasan (2016), Tiago (2010), Nigussie (2019), Zhu *et al.* (2006), Ramdani *et al.* (2013), Shah Alam *et al.* (2011), and Le *et al.* (2012), confirmed the positive impact of this factor on E-Marketing adoption in developing countries. They (*ibid*) stated that, although the companies within an adequate IT infrastructure and employees with IT skills are more confident in adoption of new technologies. However, the e-readiness of the country is also important. Therefore, this study challenges the findings by Oxley and Yeung (2001) who found insignificant relationship between the adoption of online marketing with the intensity of national e-readiness, indicated that although the lack of necessary system infrastructure and skilled personnel is a salient barrier for development of new technology system, it is vital to seek beyond and to investigate how the external environment in a country, specifically in the shadow of laws, contributes to a new technology adoption. Based on the findings, the current research recommends that the intensity of national e-readiness contribute to the E-Marketing adoption by Iranian firms in distribution sector.

Finally, the last important factor within the environmental attributes is the external IT support provided for the organisation (adopted from the TOE framework). Adoption of external support for the organisation is increased due to the individual's desire for change within their firm and their realisation of the need for getting support from external IT expertise such as competitors in industry, changes in stockholders, the owner/manager's expectations, the redefined changes

in the regulations and roles within the firm (Tushar, 2004). This study found that the external IT support impacts on E-Marketing adoption by Iranian distribution firms in a good way. This finding is supported by various studies. For example, Li (2008) found the external support as a significant factor for the adoption of E-Marketing in manufacturing. Similarly, the finding is consistent with the research conducted by Al-Somali (2011) through questionnaire survey found a significant positive correlation of external support with the adoption of e-commerce among firms in Indonesia, found that the external support plays a significant role for the adoption of new technology.

This is also in consistent with previous studies conducted by Rahayu and Day (2015) found the significant role of the external support in ten different developing countries; Chong and Ooi (2008) found the significant role of external IT Support in Malaysia; Dahnil *et al.* (2014), Mzee, Ogwen, and Irene (2015), and Morteza *et al.* (2011) found the external IT support as a significant factor on the adoption of new technology. Another study conducted in Malaysia by Sam and Hock-Eam (2011) found that external IT support has a significant positive influence on E-marketing adoption across all levels of adoption. They (*ibid*) also discussed that, the interesting discussion on this factor may obtained by a comparison between the external IT support and the owner/management support that the external support has stronger impact on the firms than the management support as some firms still reliant on the availability of the technology resources and the skilful personnel. However, in another study by Chiu *et al.* (2017) found that this external IT support from the consultants or vendors insignificantly influence the adoption of IT, which is not consistent with the findings in this study. Hence, based on the findings, the current research suggests that the external IT support contributed to the E-Marketing adoption by Iranian firms in distribution sector.

### **Findings 2: Individual Context**

Factors surrounding the individuals are essential aspects for adoption of E-Marketing in all organisations stated by Drew (2003). He discussed that in firms, the situation of individuals matters, as they are an important component of the organisation for their performance. Most organisations' personnel are in either main managerial positions or a function that implements a certain task or several tasks. Hence, individual's behaviour toward the new technology is as important as the technology itself (Demirbas, Hussain, and Matlay, 2011). Taking into consideration of the recommendation by Fillis (2000) and Rabie (2013), the future studies need to consider having more holistic focus on investigation of influencing factors of E-Marketing

adoption in developing countries particularly in individual context. This research extended the investigation into another dimension which is related to individual factors. In this context, the study examined five variables related to individual context that can predict the E-Marketing adoption by Iranian distribution firms. The variables include: i) normative social influences; ii) owner/management support; iii) job fit with PC use; iv) long-term consequences of PC use; and v) perceived ease of use. Based on the multiple regression and simple linear analysis in the second model, individual factors have impact on the adoption of E-Marketing. The findings indicate positive significant relationship between E-Marketing adoption and factors related to individual context. The Model fit is in a perfect acceptable level with adjusted R square ( $R_2$ ) of 0.274, indicating that the observed variation of E-Marketing adoption is 27% explained by the variables related to individual context. Moreover, the Beta weights showed the strongest variable explaining E-Marketing adoption by Iranian distribution firms is job fit with PC use ( $B=0.209$ ), normative social influences ( $B=0.187$ ), perceived long-term consequences of PC use ( $B=0.175$ ), perceived ease of use ( $B=0.157$ ) and owner/manager support ( $B=0.130$ ).

The most critical factor influencing the E-Marketing adoption of Iranian distribution firms was job fit with PC use showed a positive significant relationship with E-Marketing adoption. This factor has adopted from the model of PC utilisation. The finding is consistent with previous work undertaken by Thompson *et al.* (1991) who found the significant positive impact of the job fit with the IS adoption and considered it as an important component which is relates to the capabilities of the new technology in increasing the individual's job performance such as reducing the time required for completion of the task. Mathieson (1991) and Igbaria (1995) confirmed that job fit is the major determinant of the organisations' intention to use new technology tools and has a strong effect on the adoption.

Similarly, the research conducted by Valencia (2019) found a strong positive relationship between job fit with the adoption of e-commerce, demonstrating the need for planning better strategies that in fact showing the individuals, efficacy, and the advantage of the new technology, since it is one of the most crucial factors with increasing the performance of the individuals. Hence, this leads the firms into a better adoption of new technology. In studies conducted by Almahamid (2010), Carter (2005), and Wangpipatwong *et al.* (2008) found a significant positive relationship between the perceived usefulness with the intention to adoption of e-commerce. They (ibid) stated that once the adopted new technology in the organisation be free from error and be modified according to individuals' task, as soon as the individuals

(either the managers or employees) be satisfied with the quality and the efficiency of the tool, there will be a trust-building occurs between the individuals and the new adopted system as Gu *et al.* (2009) supported the contributing role of the job fit factor empirically to the organisations' willingness to adopt software. In the study by Hanafizadeh *et al.* (2014) also the crucial role of the job fit with the new technology supported in motivating the firms to adopt the new technology tools. Based on the findings, this current research suggests that The Iranian distribution firms expanded their business strategies into the online platform since the adoption of E-Marketing is fit to their job which in turn, the fitness of the job leads the individuals into a better performance as the new technology is adapt to their task(s) and a better performance is a basis for the growth of the organisation.

The social normative influence (adopted from the model of PC utilisation) is the second most crucial factor in prediction of the E-Marketing adoption by Iranian distribution firms in a perfect way. This factor is related to the individual's perception of his/her important peers' point of view performing the specific behaviour and this behaviour result from the influence of other peers on individuals (manager/owner) in use of a system (Fishbein and Ajzen, 1975 cited in Jamali *et al.*, 2015). The finding is in consistent with previous work conducted by Jamali *et al.*, (2015) who found in interview with experts that decision making in most cases is under CEO/Owner or manager's control. Hence, the new technology adoption is affected by his/her perception from the internal and/or the external organisational expectation. Similarly, the research conducted by Friedrich (2016) found the positive impact of the social influence on the adoption of the E-Marketing. They (ibid) found that, individuals are influenced by other peers's behaviour (other firms, competitors, friends, management or even the social media). This result is also supported by Garry *et al.* (2017), and Leong (2013) by finding a positive significant relationship between the social influence and the adoption of e-commerce.

Conversely, in another study by San Martín and Herrero, (2012) in Malaysia found the normative social influence is significant toward adoption of new system in developing countries. They (ibid) found that business partners (suppliers or the customers) are not satisfy when using the online service system adopted by their related organisation. Hence, they do not spread positive word of mouth to the other professionals within the market. This, influence the decision of the individuals in adoption of new technology and lead them to resistance toward the technology innovation. Hamari and Koivisto (2015) and Shaharuddin, Rahman, Aziz, and Kassim (2018) who found the positive significant relationship of the social influence on the

adoption of the new technology state that, the satisfaction of individuals who adjusting themselves with the new developed standards, will further lead toward their positive behaviour, if they get the acknowledgment for the adoption of new technology system from the associated community. Based on the findings, this current research suggests that Iranian distribution firms diversified through adoption of E-Marketing based on the influences from the key peers inside the firm or the externals.

The Third most important factor within the individual context is the long-term consequence of PC use (adopted from the model of PC utilisation) impacts the E-Marketing adoption of Iranian firms in distribution sector. In the other word, using the new technology has a pay-off in the future for individuals. This research found the long-term consequence of PC use at significant level of  $P < 0.005$ . The finding is consistent with the previous work by Al-Qeisi and Abdallah (2013) who supported the hypothesis by confirming a significant strong relationship between the long-term consequences of use by individuals and actual adoption of technology adoption in Jordan. Likewise, in a study conducted by Hanafizadeh *et al.* (2014), they empirically confirmed significant positive impact of perceived long-term consequences of new technology usage and adoption of e-commerce and state that for some individuals, the motivation for adopting the new technology is related to plan and build the future based on the expected outcomes, rather than addressing the current. Based on the findings by Hernandez and Grayson (2012), and Marzuki (2016) through interviews with experts, the perceived of the individuals to the effectiveness of the new technology and how it affects their job performance, is the key concern that affect the adoption of technology innovation. They (*ibid*) highlighted the important role played by perceived long-term consequences of new technology use on facilitating the adoption. This drives individuals to effortlessly accept the adoption of new technology by perceiving the desired outcomes which results from the increase in their performance which in turn, would benefit the organisation. Based on the findings, this current research confirms that understanding the long-term consequences of E-Marketing adoption on individuals among Iranian distribution firms will lead them to gain in performance in future.

Furthermore, the study found a positive relationship between perceived ease of use (adopted from TAM) and the E-Marketing adoption by Iranian distribution firms as the Forth important factor within the individual context. in other word, Iranian distribution firm's owner and/or managers are more likely to adopt E-Marketing if they perceived that E-Marketing is easy to use in conducting firm's marketing activities. The finding is consistent with the previous works

conducted by Abdullah *et al.* (2016), Cho and Sagynov (2015), Tong (2010), Aydemir (2013), Grandon (2004), and Arshad (2018) found a positive significant impact of perceived ease of use and adoption of E-Marketing in their conceptual and empirical study. For example, Abdullah *et al.* (2016) found a significant relationship between the PEU and e-portfolio system with the organisations.

Cho and Sagynov (2015), Tong (2010), and Iddris and Ibrahim (2015) found a highly significant impact of PEU on the adoption of e-commerce among online customers. Similarly, the finding goes in line with Mochoge (2014) whose research was on the Kenyan SMEs adopt web-based marketing found PEU is the major determinant for adoption of web-based marketing. Likewise, in prior studies by Dlodlo (2013), and Kumar and Shenbagaraman (2017) on the impact of perceived ease of use on ICT adoption among SMEs, Azam and Quaddus (2013) in their study on the effects of PEU on the adoption of ICT among Bangladeshi firms, found significant effect of this factor on the adoption of new technologies. Therefore, this study has challenged the result of Akbari and Pijani (2013) who found that ease of use does not affect the manager's decision on adoption of ICT among Iranian firms. Hence, based on the findings, the current research suggests that adoption of E-Marketing by Iranian distribution firms is significantly affected by the distribution firms' perception of E-Marketing ease of use.

Finally, the least important factor within the individual context is the Management/Owner support (adopted from TOE Framework) found to have a significant positive relationship with E-Marketing adoption of Iranian distribution firms. As discussed earlier, Management/Owner's vision and support is indispensable in encouraging of the individuals for the adoption of the new technology (Agarwal *et al.*, 1997). Besides, an intensive E-Marketing adoption, necessitates a continuous providing of commitment and support from higher management to facilitate the adoption of new technologies and to overcome the resistance for the change which is a normal fact in such circumstances (Chatterjee *et al.*, 2002). Decision making within the organisations is with top management. Therefore, it is vital for them to be committed to support and correctly implement the available resources for the adoption of new technologies such as E-Marketing and to overcome the barriers due to the expected resistance of new technology execution (Grover and Goslar, 1993).

The finding is in line with the previous studies by Lee and Kim (2012), Abdullah *et al.* (2016), Ahmed Sheikh, Shahzad, and Ku Ishak (2017); Al-Alawi and Al-Ali (2015), Al-Dmour and Al-Surkhi (2012), Chong, Bian, and Zhang (2016); and Maryeni *et al.* (2014) found the significant

positive impact of the management/top manager support and the successful adoption of new technologies, discussed that adoption of new technologies such as E-Marketing, E-Commerce is heavily depend on the top management support. For example, Abdullah *et al.* (2016), discussed about the positive impact of the management support in the adoption of new technology and how the adoption of new technologies could significantly impact the way, business is done in the organisation along with the externals such as the trading partners. In the other word, once the organisation adopts the interactive new technology, the support of the management would accelerate the moving up of the maturity ladder of the adopted online marketing tool.

Similarly, Mazzarol (2015) found the significant positive role of management/owner support, in forming an environment of inventiveness for the firm's inclination to adopt E-Marketing. Likewise, McCole and Ramsey (2005) by finding the significant influence of management/owner support on the adoption of E-Marketing discussed that management/top management who have positive support toward the adoption of E-Marketing should make available sufficient resources including enough money and skilful human resource as well as completion of E-Marketing ventures. In a recent finding by Awiagah (2016) who found a significant positive impact of the managerial support on the adoption of e-commerce, discussed that the commitment of the managers/top managers is beneficial for determination of the speed and extent of the new technology use which confirms the evidence of the "snowballing" impact of managers' knowledge in ICT adoption to the E-Marketing milieu.

Finally, in the study by Ghobakhloo *et al.* (2015) and Alrousan (2015), found the significant relation of the management/owner support with ICT adoption. They (ibid) discuss that this support could be done directly by placing the Information system (IS) in the firm to propose and improve effort whilst the indirect support by managers/top managers would be in form of hiring vendors and external supporters to take on efforts in development of the adopted system in the organisation. Therefore, this study has challenged the findings by Kilangi (2012), and Shaltoni *et al.*, (2018) who found that management/owner support has insignificant relationship with the adoption of new technologies such as E-Marketing and ICT respectively. Hence, based on the findings, the current research suggests that adoption of E-Marketing by Iranian distribution firms is significantly affected by the distribution firms' management/top manager support and extends the cumulative information of the important role of managers/top managers

in E-Marketing adoption and their influence in routinising new technology within the organisation's boundary.

### **Findings 3: Organisational Context**

Organisational context refers to the availability and use of firm's internal sources, which is the combination of structures, methods, and attributes that restrain or facilitate adoption of new technology tools. This category refers to the organisation's characteristics that influence the adoption and implementation of E-Marketing adoption (Maryeni *et al.*, 2014) and firms perceived resources Kuan and Chau (2001). Organisations when consider adopting new technology tool, need to be sure of its relevancy to the nature of their business, services, and enterprises to be able to improve the competitiveness suggested by Ghobakhloo *et al.* (2015). In the past studies, the results of organisational context were varied in different countries. For example, organisation e-readiness was insignificant in the USA (Grandon and Pearson, 2004), however had significant impact in Ghana in the study by Saffu *et al.* (2008), argued that this inconsistency in results is because of the differences in the availability of the resources at the organisational level. Here, the study examined eight variables related to organisational context, which can predict the E-Marketing adoption, by Iranian distribution firms. The variables include: i) organisation's culture; ii) organisation's e-readiness; iii) employees' IT knowledge; iv) management's IT knowledge; v) receptivity toward change; vi) degree of formalisation; vii) marketing capabilities of the organisation; and viii) the level of formalisation. Based on the multiple regression and one simple linear regression analyses on Model 3 (organisational factors impact on the adoption of E-Marketing), The findings indicate that there is a significant positive relationship between E-Marketing adoption and the factors related to organisational context. The Model fit is in an acceptable level with the adjusted R Squared ( $R_2$ ) of 0.131 indicating that the observed variation of E-Marketing adoption is 13% explained by variables related to organisational context. The Beta weights showed the strongest variable explaining E-Marketing adoption by Iranian distribution firms is Management's IT knowledge ( $B= 0.238$ ), followed by employees' IT knowledge ( $B=0.236$ ), organisation's culture ( $B= 0.233$ ), level of decentralisation ( $B=0.226$ ), receptivity toward change ( $B=0.219$ ), organisation's e-readiness ( $B= 0.208$ ), marketing capabilities of the organisation ( $B=0.142$ ), and degree of formalisation ( $B=0.138$ ).

The Management's IT knowledge (adopted from TOE Framework) is the most essential factor that predicts the E-Marketing adoption by Iranian distribution firms in Model 3. This finding is consistent with previous studies by Rabie (2013), Morteza *et al.*, (2011), Teo and Ranganathan (2004), Roberts and Toleman (2007), Chandra and Kumar (2018), and Ghobakhloo *et al.* (2015) who found the significant relationship of the management IT knowledge and the adoption of new technology tools and highlighted that the IT knowledge among non-IT professionals particularly management/owner is a very significant factor for E-Marketing adoption. For example, Teo and Ranganathan (2004) found that 54.4% of online marketing adopters in Singapore have an official plan and a job force to carry out E-Marketing initiatives, showing the pervasiveness of the internal expertise within firms and highlighting that, management IT knowledge is the most influential factor only at the earlier stage of the new technology adoption and the need will be decreased when the adoption moves toward to a higher and more advanced level of the adoption ladder.

Also, Sulaiman and Jaafar (2003) in the context of Malaysia, found that this factor is the most crucial element for the adoption of new technology, as the lack of IT knowledge and skills to operate by management is a main hurdle for the adoption in firms. Similarly, Ghobakhloo (2015), Sheikh *et al.* (2017), and Erum, Rafique, and Ali (2017), found a positive and significant impact of management's IT knowledge on new technology adoption, discussed that owner/CEO's IT knowledge and experience is one of the attributes affecting the IT adoption in firms, the greater is the knowledge of owner/management, the lesser the level of uncertainty entwined with information technology. Thus, the businesses with the management who is more knowledgeable about IT, is more likely to adopt and implement the new technology within firm. Consequently, in the study by Utomo and Dodgson (2001) among Indonesian firms, found the significant impact of this variable on IT adoption. They (*ibid*) found that Manager/owner level of IT knowledge, results to an encouraging approach towards IT and an increase in the level of investment in information technology tools.

Employees' IT knowledge (adopted from TOE Framework) is the second most important factor within Model 3 impacts on E-Marketing adoption by Iranian distribution firms. A company can achieve to a successful adoption of new technology and integrate it with the firm's business, if the firm's employees understand and have knowledge of IT (Rabie, 2013). This study found positive impact of employees' IT knowledge on the adoption of E-Marketing and identified the importance of such knowledge impacting on the managers/owners' decision to adopt E-Marketing applications. The finding goes in line with previous studies by Chiu *et al.* (2017),

Ocloo *et al.* (2018), San-Martín, Jiménez, and López-Catalán (2016), Alrousan (2015), and Scupola (2009). The former studies found employee's IT knowledge as one of the most crucial factors in firm's website adoption. For example, Scupola (2009) in a study conducted for Australian and Danish firms found that this factor is an important factor for e-marketing adoption, particularly when Australian owner/CEOs paying more attention to the recommendations from employees for the adoption. The result also supported the study conducted by Gangwar *et al.* (2015), Alrousn (2015), Sheikh *et al.* (2017), and Hussein (2009), found that employees' IT knowledge shows a positive relationship to e-commerce adoption. Hence, this study has challenged the results of Rabie (2013), Sarosa and Underwood (2005), and Seyal and Rahman (2006), who found that IT knowledge of firm's employees is insignificant and unrelated to any of new technology level adoption and does not influence the firms' decision makers for adoption of such phenomena in their business.

Moreover, significant positive relationship was found on organisation's culture (adopted from TOE Framework) which is consistent with previous studies such as Saffu *et al.* (2008), Qu *et al.* (2015), Paille *et al.* (2014), Nickels, Kwun, and Omar (2008), and Brdesee (2013). For example, Saffu *et al.* (2008), found significant positive relationship between the organisational culture and e-marketing adoption asserted that alignment between the organisation's culture, the infrastructure, and the new technology tool is crucial. The result also supports the study conducted by Puklavec (2018) who found that organisation's rational decision-making culture, signifies a positive impact on the IT adoption process. Senarathna (2014) through a questionnaire survey, found a strong influence of the organisational culture among SMEs in Sri Lanka on E-Marketing adoption while categorised the organisational culture into different levels. The researcher underlines that, dominance by different organisational culture leads to different level of E-Marketing adoption. In another study by Shemi (2012), explained organisational culture as an openness to innovation technologies, and supporting managers to use ICT innovations, that can be applied to the organisation. The study found a significant positive relationship between the organisation's culture and adoption of ICT innovation stating that, in medium size firms in Botswana, the adoption culture is less formal due to the managerial structure. Mohtaramzadeh (2018) found that organisational culture significantly moderates the relationship between B2B e-commerce adoption and support by top managers. In the other word, organisations with weak culture possess toward multifaceted hierarchy and take the control of the structures that hinder the process of technology adoption. Hence, this current study extends and deepens the understanding of the role of the

organisational culture in influencing E-Marketing adoption by Iranian distribution firms through survey questionnaires conducted.

The fourth most important factor within the organisational context is the level of decentralisation (adopted from TOE Framework) within the firm. This research found a significant positive relationship between level of decentralisation with the adoption of E-Marketing. The finding is consistent with works by Qashou (2017), and Ndekwa and Katunzi (2016), who found a significant impact of decentralisation on the adoption of new technology. For example, Chen (2011) state that a less centralised organisation highly motivates its staff for participating in knowledge creation and empowering the employees for making their own decision. Also, Hopper (2002) discussed that a business with a decentralised structure encourage employees to be engaged in information building process more impulsively and the communication in-between the top and bottom of the hierarchy would be without the need for the middle manager's mediation. In contrast, there are studies that found the insignificant relationship of the decentralisation level and the adoption of new technologies such as Salome and Ofunre (2019), and Giotopoulos (2017). For example, Giotopoulos (2017) found that level of decentralisation impact negatively on the adoption of IT innovation in Greece. They (ibid) discuss that when the authority diverse, influencing over the employees becomes difficult, and there would be more diffused and conflict among the organisation's staff over the innovation, as they might consider the innovation would reduce the amount of impact they already have. Therefore, this study has challenged the result of Giotopoulos (2017) by finding a positive significant relationship between the phenomena and E-Marketing adoption. E-Marketing adoption in a decentralised organisation motivates the authorised lower level of employees to be more involved in the decisions and activities related to the implementation of new technologies.

The fifth most important factor within the organisational context is receptivity toward change (adopted from TOE Framework) affects the E-Marketing adoption of Iranian distribution firms. This research found receptivity toward change affects the E-Marketing adoption by Iranian distribution firms in a good way at the significance level of  $P < 0.05$ , and a significant factor for achieving success in technology adoption. This factor is one of the important factors in the organisation context, as changing the business strategies of firms in developing countries such as Iran are unavoidably vague, due to the need for declaration of the agreement amongst various

parties, the ambiguity in the firm's technology environment and the multiple perceptions of individuals within firm (Montealegre, 1998).

The finding is consistent with the previous work by Al-Somali (2011,) Alrousan and Jones (2016), Sultan, Asif, and Asim (2019), Alavion *et al.* (2017), and Galati *et al.* (2016). For example, Al-Somali (2011) found a positive relationship between the top manager's receptivity toward change and the adoption of new technology innovation, arguing that when managers considering changing the strategies from the traditional methods to the e-technology services, the openness of the managers affect the firm's adoption and implementation decision. Also, Dalvi-Esfahani *et al.* (2018), Abou-Shouk *et al.* (2013), and Abukhzam and Lee (2010) found that the receptivity of the firm's manager toward change of the strategies impact on the level of the organisation's adoption of online marketing. A dynamic manager that is more open toward technology changes, is more likely to adopt new technology rather than the conservative management team. Based on the findings, the current research suggests that the receptivity and openness of the managers toward change of the business strategies contributes to the E-Marketing adoption by Iranian distribution firms.

Organisation's e-readiness (adopted from the Perceived E-Readiness Model (PERM)) is the sixth important factor contributing to the adoption of E-Marketing by Iranian distribution firms in a right way at the significance level of  $P < 0.05$ . Developing Middle Eastern countries including Iran are still challenged by various factors such as cultural and infrastructure issues when decide for the adoption. However, it is important that organisation's system be flexible enough to manage any changes and to be able to handle any development of the data. The result is in line with previous work by Hajli *et al.* (2014) where found a positive role that organisation's e-readiness played in the adoption of new technology in Iran. Similarly, the finding of this current study supported by Alavion *et al.* (2017), Aljowaidi (2015), Qashou and Saleh (2018), Rabie (2013), Molla and Licker (2005a), and Gyamfi, 2016) who found a positive relationship between the e-readiness of the firm and adoption of new technologies in developing countries. They (ibid) discussed that the higher the score of e-readiness in the organisation, the greater the organisation's ability to compete within the industry in the new digital economy era.

Mutula and Brakel (2006) in their study in Botswana, found a positive impact of the organisation's e-readiness on ICT adoption, argued that the reason for the low implementation of ICT in organisations in developing countries, result from the low e-readiness of the country.

This reflects the importance of the firm's technological infrastructure, internet's quality and speed that has high impact on the efficiency of data transmission. Also, the research conducted by Shemi (2012) found the organisation's IT readiness positively influencing firms in all levels of new technology adoption. The study argues that, once the new technology applications have been implemented for supporting and value chain activities, the need for technological resources become even more critical for enhancement in the quality of the implementation. Furthermore, Al-Somali (2011) states that, new technology adoption such as e-commerce is more influenced by the organisation's e-readiness such as organisational resources, capabilities, and management/owner commitment rather than national e-readiness and have strong significant impact on the organisation's decision to adopt new technology even with many constraints within the country. Based on finding, this current study, suggests that e-readiness of the organisation flows through several practical applications, necessitate integrating disparate heritage systems, and decreasing incompatibility between existing E-Marketing applications. Lacking these facilitations, data and information communication across the departmental units, and the business processes would be impossible or will be in poor efficiency. Therefore, organisation's e-readiness includes resources, skills, and system integration is an important influencing factor for Iranian distribution firms to adopt and implement E-Marketing.

The seventh most important factor within the organisational context is marketing capabilities of the organisation knowledge (adopted from RBV Theory). This study found that ability of firms in sensing the market, sufficient knowledge, resources, and skills related to market needs, functional abilities, and networking skills have a positive link to the E-Marketing adoption of Iranian distribution firms. The marketing capabilities in this study are related to management and employees' ability on applying their skills and their knowledge related to the new marketing services that applied on organisation's webpage. This finding is consistent with the study conducted by Sheikh, Shahzad, Ishak, 2017; Liu *et al* (2020); Tarighi *et al.* (2017); Setiowati, Daryanto, and Arifin (2015); Cacciolatti and Lee (2016), Liu, Eng, and Takeda (2015), and Mathews *et al.* (2016) found significant positive relationship between the marketing capabilities and new technology innovation implementation. Moreover, Simmons *et al.* (2007) found significant positive impact of marketing capabilities of firm on internet adoption in agri-food sectors in UK. They (*ibid*) state that, the more effectual the capabilities of the organisation's marketing interaction, the greater acceleration of new technology services and gaining successful adoption outputs.

Furthermore, Rabie (2013) confirmed that firm's intangible resources such as knowledge and skills related to E-Marketing, enables the firm to add value to its products/services and meet the competitive demands of the everyday changing market and lead the firm into better marketing performance and enhancement of their ability to market their product/service both locally and internationally. Similarly, based on the expert interviews, Hussein (2009) found that in Egyptian organisations in tourism and travel industry, IT knowledge and skills, and "know-how" related to online marketing are crucial factor influencing the adoption decision. Hence, based on the findings, this current study suggests that the marketing capabilities of the organisation effectively contributes to the E-Marketing adoption by Iranian distribution firms.

Finally, the least important factor within organisational context is level of formalisation (adopted from TOE Framework) within the firm. This study found the level of formalisation within the firm impacts the stabilisation and institutionalisation of E-Marketing of Iranian distribution firms in a right way. This finding is supported by previous research conducted by Harif (2017), Qashou (2017), Ndekwa and Katunzi, (2016), Lim, Baharudin, and Low (2016), Al-Somali (2011), Alrousan (2014), and Hung (2011). For example, Harif (2017) found that firm's formalisation is effective throughout the implementation stage but not at the initial phase of adoption. During the initiation phase of adoption, the organisation needs to be flexible and open to the possible new resources of information and different courses of action. However, during the implementation stage, a singleness of the purpose is necessary to bring the new technology system into practice. Hence, formalised procedures and rules are beneficial in reduction of conflicts in opinions, and more significantly provides both information and particular methods, that help firms to adopt the IT technology. Similarly, Al-Somali (2011), confirm that formalisation has positive significant impact on the stabilisation of the new technology adopted such as e-commerce, in high-tech industry, in expanding their business operations in the Saudi Arabia. Thus, it diminishes the possible ambiguity that surrounded the technology stabilisation. Based on the findings, the current research suggests that the degree of formalisation effectively contributed to the E-Marketing adoption by Iranian distribution firms.

#### **Findings 4: Technological Context**

Technological context is considered as one of the most important groups of factors influencing the adoption of new technology (Elbeltagi, 2013). This context indicates the characteristic of the technology that is adopted by organisation (Henderson, Sheetz, and Trinkle, 2012). Rogers (2003) assert that, technology diffuses much faster, due to the perceived entrenched

characteristics of the technology. The technological context describes the existing technology being adopted by the organisation, and the availability of the new technology within the market. Here, the study examined five variables related to technological attributes, which can predict the E-Marketing adoption, by Iranian distribution firms. The variables include: i) Physical infrastructure and the sufficient accessibility to Internet resources; ii) Cost effects; iii) The perceived benefits of ICT; iv) The Perceived Compatibility; and v) Perceived relative advantage. Based on the multiple regression and one simple linear regression analyses on Model 4 (Technological attributes impact on the adoption of E-Marketing). The findings indicate that there is a significant positive relationship between E-Marketing adoption and the factors related to technological attributes. The Model fit is in an acceptable level with the adjusted R Squared ( $R_2$ ) of 0.175 indicating that the observed variation of E-Marketing adoption is 18% explained by variables related to technological attributes. The Beta weights explaining E-Marketing adoption by Iranian distribution firms are perceived relative advantage ( $B=0.317$ ), followed by the perceived benefits of ICT ( $B= 0.315$ ), the sufficient accessibility to internet resources ( $B=0.235$ ), Perceived compatibility ( $B=0.206$ ), and cost effects ( $B=0.157$ ).

The perceived relative advantage (adopted from IDT) is the most essential factor predicts E-Marketing adoption by Iranian distribution firms in Model 4. This factor, which said to be the most important factor within the technological context, found with a positive significant impact on the adoption of new technologies by various scholars such as: Abou-Shouk, Megicks, and Lim (2013), Ahmad *et al.* (2015), Al-Alawi and Al-Ali (2015), Garg and Choeu (2015) and Rahayu, and Day (2015). Al-Alawi and Al-Ali (2015) by finding a positive significant relationship between the relative advantage and adoption of online marketing state that, perceived relative advantage of the technology is a factor leading the organisations toward less operation cost, develop the market share, development of customer base, enhance the organisation's image, better customer services and an improved relation with suppliers. The finding of the study is also goes in line with the previous works by Tan and Teo (2000); Hussin and Noor (2005); Al-Qirim (2006); Poorangi *et al.* (2013); Ghobakhloo *et al.* (2015); and Looi (2005). For example, in the study by Al-Qirim (2006), found the relationship of the relative advantage and e-commerce in a significant and positive way in discriminating between the low levels and high levels adopters of e-commerce among firms in New Zealand. Moreover, Ghobakhloo *et al.* (2015) found a significant relationship of this phenomenon with the adoption of e-commerce of those SMEs considering the initial adoption decision of the new technology.

Al-Somali (2011) found the significant relationship of the relative advantage and e-commerce in an advanced level of adoption. Similarly, in more recent studies by Sheikh, Shahzad, Ishak (2017), and Shaltoni *et al.* (2018) found the significant relationship of perceived relative advantage with adoption of e-marketing and e-supply chain respectively. Moreover, in another study conducted by Qashou and Saleh (2018), and Ocloo *et al.* (2018), found the perceived relative advantage as the most important factor influencing the adoption of e-commerce with a perfect Beta coefficient value suggests that relative advantage was seen as strong motivator among organisations, and the best predictors of a technological rate's adoption.

Surprisingly in a study conducted by Awiagah (2016) found the insignificant relationship between the perceived relative advantage and adoption of e-commerce in Ghana. Awiagah (2016) state that the insignificant finding could be relate to the low level of adoption among Ghana's firms, discussing that this minimal level of adoption could be a barrier and make the Ghanaian firms difficult to perceive the advantage of adopting new technology. Furthermore, Teo and Tan (1998) argue that the insignificant relationship is because, the adopters were not witnessing the important benefits arise from the internet and new technologies. Based on the findings on perceived relative advantage, the current research suggests that owners/managers with more faith on perceiving the advantage of E-Marketing adoption are likely to adopt new technologies such as E-Marketing. Hence, this study discusses the important role of the relative advantage on firms' owners/managers' decision on the adoption of E-Marketing and the effective contribution of this factor on adoption of E-Marketing by Iranian distribution firms.

Perceived benefit (adopted from TOE framework) is the second most important factor within Model 4 impacts on E-Marketing adoption by Iranian distribution firms. Based on the findings, the perceived benefits of E-Marketing adoption considered having impact on three main categories as the essentials, marketing and competition, and internal business proficiency contribute to the E-Marketing adoption by Iranian distribution firms. The essentials focused on the strategic and future oriented perspective and is concerned with the sales and revenue growth of the organisation (results from adopting the new technology, which is the main purpose of all firms hoping to survive in the competitive market), gaining new investments or better services, and finally supporting the facility collaboration. This is consistent with the study by Abou-Shouk *et al.* (2012), Grandon and Pearson (2004), and Saffu and Walker (2008). The second category of perceived benefits consist of benefits relate to improvement within firm and its

partners' reputation within the market, customisation of firms' services to meet the customer's needs, and finally increase in competitive advantage, results from the reduction in costs. This is in line with findings by Alrousan (2014), and Ahmed Sheikh, Shahzad, and Ku Ishak (2017). The final perceived benefit of adoption in this research is the internal proficiency benefits achieved within the business through the adoption. This benefit is related to the infrastructure that supports the organisation internally for the transaction management and externally through building an active partnership with customers/suppliers. The recognition of the benefits within this category is in line with previous finding from Harindranath *et al.* (2008).

This factor found to have a positive impact on adoption of E-Marketing and been suggested to be influential on the managers/owners' decision to adopt. The finding is consistent with previous works undertaken by Rahayu (2015), Alam *et al.* (2011), Tan *et al.* (2009), Chong (2008), Kumar *et al.* (2019), Arora and Aggarwal, (2018), Morteza *et al.* (2011), Ghobakhloo and Tang (2015), and Ifinedo (2014) found positive and significant impact on adoption of new technologies. For example, Iacovou *et al.* (1995) who studied the adoption of electronic data interchange (EDI) adoption among the firms in British Columbia, found the perceived benefits as the only significant factor that discriminate the adopters and non-adopters of various communication technologies such as e-mail, EDI, Internet etc. in USA. Also, in a study by Ohunmah (2015) on the adoption of EPS in Nigeria found the positive and significant relationship of the perceived benefits and adoption and confirmed that the success in the early stages of new technology implementation is mainly due to its perceived suitability, speed, and its safety way of doing business through the technology tool. Hence, this current study empirically confirms that perceived benefits strongly and positively affect the decision to adopt E-Marketing by Iranian distribution firms.

The Physical Infrastructures and Sufficient Accessibility to Internet Resources (adopted from TOE framework) is the third most crucial factor predicting the E-Marketing adoption by Iranian distribution firms in an excellent way. Success in the new technology adoption is heavily depends on the technology infrastructure and sufficient accessibility to internet resources in the country as one of them is the tele-communication infrastructure for connecting the various regions and parties within and across the country. The adoption of E-Marketing is depending on the well-organised logistic infrastructure within the country. This helps firms to develop a reliable secure payment system infrastructure and firms from the online fraud (Boerhanoeddin, 2000). In overall, IT infrastructure improvement heavily depends on the geographical and the

economic conditions within the country. In this current research, a positive significant relationship found between the physical infrastructure and the adoption of E-Marketing by Iranian distribution firms.

The finding is consistent with previous works conducted by Ohunman (2015), Alrousan (2014), Waheib (2016), Aljowaidi (2015), Misganaw and Singh (2019), Usman and Oyefolahan (2014), and Shemi (2012) who found there is positive relationship between the physical infrastructure and adoption of new technology tools by businesses. For example, Shemi (2012) found out the significant important role of the accessibility to the sufficient internet resources in the expert interviews. The researcher state that, the smooth running of the system and e-commerce application is crucial for sustaining the e-commerce activities in the firm. This is highly depending on the availability of internet resources, good IT infrastructure, and good speed of the internet. Similarly, Usman and Oyefolahan (2014) found that, having a well-conceived technology infrastructure and sufficient accessibility to internet resources that supports the personnel with the secure and fast speed internet connection, appropriate software and hardware, a well-established website, and comfortable communication interfaces, all lead the personnel and the organisation, into a smooth process of adoption of new technology. The National ICT Policy document in Iran (2019) has recently acknowledged the significant development within the IT infrastructure in Iran and mentioned the remarkable high speed in the internet services as well as the adopted latest WIFI technologies within organisations. Based on the finding, the current research suggests that the sufficient accessibility to internet resources contributed to the adoption of E-Marketing by Iranian distribution firms.

Perceived Compatibility (adopted from IDT) is the fourth most important factor within Model 4 impacts on E-Marketing adoption by Iranian distribution firms. This factor found to have a significant positive impact on the adoption of E-Marketing by Iranian distribution firms. The finding is consistent with previous works by Ghobakhloo *et al.* (2015), Alam *et al.* (2008), Ramdani and Kawalek (2007), Alsaif (2013), Ohunmah (2015), Aljowaidi (2015), Shaltoni *et al.* (2018), Samat *et al.* (2017), Faqih (2016), and Purwandari, Otmen, and Kumaralalita (2019). For example, Walczuch *et al.* (2000) in their study on the adoption of e-marketing among Saudi Arabian firms, found a significant and positive relationship. They (ibid) suggest that organisatiois in Saudi Arabia investigated e-marketing compatible with the countries business environment, IT infrastructure, and their current values. Similarly, the positive significant result of the compatibility as the influencing factor of the E-Marketing adoption is consistent with

studies by Ahmad *et al.* (2015), and Ghobakhloo and Tang (2015). Moreover, Saffu *et al.* (2008) highlight that, although it is vital that the existing IS be fitted with the new technology, there should be also compatibility of the firms' system with suppliers and business partners.

In contrast, various scholars found the insignificant relationship between the adoption of new technology and compatibility such as Chong and Ooi (2008), Almoawi and Mahmood (2011), Al-Somali (2011), and Hussin and Noor (2005). For example, Al-Somali (2011) state that, the reason for the insignificance of the finding is due to the lack of compatibility background experience of the owner/managers in integrating the new technology applications within their current business system. Hence, this current research extends and deepens the understanding of the role of the perceived compatibility in influencing E-Marketing adoption by Iranian distribution firms through survey questionnaires conducted.

Finally, the least important factor within technological context is the cost effects (adopted from TOE framework) results from the adoption of E-Marketing. This study found that the cost effect, impacts on the E-Marketing adoption by Iranian distribution firms in a right way. This finding is supported by previous studies conducted by Alam (2009), Wymer and Regan (2005), Morteza *et al.* (2011), Erum, Rafique, and Ali (2017), Adede, Kibera, and Owino (2017), Qashou and Saleh (2018), Tauringana (2019), Sheikh, Shahzad, Ishak (2017), Al-Somali (2011), and Rahayu (2015) that found the significant influence of costs on the adoption of new technologies.

For example, Al-Somali (2011) found that vast investments, huge time, and exertions are needed to integrate advanced innovation applications in firms. Thus, the manager/owner of the organisations need to be aware of the achievability and cost effectiveness of the adoption before taking the action and make decision on integrating the new technology into their business strategies. Similarly, Rahayu (2015) confirmed the effectiveness of the cost in adoption of new technology has impact on the speed of the adoption in the organisation. The lesser the costs, the quicker is the implementation in the organisation. The finding in this study implies that, cost effects of the new technology adoption is the biggest challenge for the organisations with no implementation or low level of implementation. However, acceptance of the contemporary effect of costs through adoption of E-Marketing applications will give opportunities such as the future cost reduction and high ROI (Return on Investment), few years after the implementation

of new technology system. Hence, based on the findings, the current research suggests that considering the ability to manage the cost effectively contributes to the E-Marketing adoption by Iranian distribution firms.

Although the impact of perceived benefits and perceived relative advantage was not significant to support these findings, the individual effect of each of these factors on the adoption of E-Marketing by Iranian distribution firms was investigated through conducting simple linear regression analysis. This was mainly to determine the significance of each independent variable with the dependent variable (E-Marketing adoption). Based on the result of the simple regression analysis, both factors have a significant and positive linear relationship with E-Marketing adoption. This indicates the important role of these two factors in adoption of innovation technology.

#### **Findings 5: The Integration between Factors Affecting the E-Marketing Adoption (Structural Equation Modelling)**

The factors impacting on E-Marketing adoption of Iranian distribution firms differed from the environmental attributes, individual factors, organisational factors, and technological attributes. Even though the framework made from various factors, all the factors from environmental attributes, individual, organisational and technological attributes were established to influence the E-Marketing adoption of Iranian distribution firms. Although expanding the framework into an integrative one (Environmental, individual, organisational and technological level) could develop understanding of factors influencing Iranian distribution firms' E-Marketing adoption from several facets, there is still a need to understand the different relationships and inter-relationships among internal factors (individual factors, organisational factors) and external factors (environmental attributes, technological attributes) from the other perspective. The examination of integration among the independent variables in affecting E-Marketing adoption will deepen the understanding the phenomena of the field study. Based on the data analyses and the results of the hypotheses testing (refer to Chapter 9).

The external factors (technological attributes, the intensity of national e-readiness, and the external IT support) were found positively contribute to the E-Marketing adoption of Iranian distribution firms, whilst the business partner affiliation was found the inverse. The highest impact on E-Marketing adoption by Iranian distribution firms was contributed by External IT support (standardised estimate= 0.58,  $P < 0.01$ ) followed by the intensity of national e-readiness (standardised estimate= 0.056,  $P < 0.01$ ) and technological attributes (standardised estimate=

0.51,  $P < 0.01$ ), while the business partner affiliation is not significant (standardised estimate = -0.18,  $P > 0.05$ ).

The significant positive impact of technological attributes on E-Marketing adoption is consistent with the finding in regression Model 4. Similarly, the significant positive impact of external IT support on E-Marketing adoption is consistent with the finding in regression Model 1. Conversely, the findings from the environmental attributes differs from the results in multiple regression Model 1, where the intensity of national e-readiness is found significant in SEM but not significant in multiple regression Model 1, and the external IT support within the environmental attributes was not significant in SEM but significant in multiple regression Model 1. The reason for significance result of the intensity of national e-readiness maybe because this factor mediates the relationship between individual factors and the E-Marketing adoption, thus, improving the relationship to E-Marketing adoption. In addition, the result of the business partner affiliation in SEM is not consistent with the result of the multiple regression where it found positive and significant result. The reason for the insignificant result of the business partner affiliation maybe because this factor does not mediate the relationship between the individual factors and E-Marketing adoption and does not mediates the relationship between the organisational factors and E-Marketing adoption, hence, it is not improving the relationship to E-Marketing adoption.

The internal related factor that relates to individual factors positively and significantly affected the technological attributes (standardised estimate = 0.95,  $P < 0.001$ ) followed by intensity of national e-readiness (standardised estimate = 0.71,  $P < 0.001$ ), external IT support (standardised estimate = 0.61,  $P < 0.001$ ) and E-Marketing adoption (standardised estimate = -0.27,  $P < 0.001$ ). Surprisingly, the individual factors have insignificant positive impact on the business partner affiliation (standardised estimate = 0.65,  $P > 0.05$ ). The result is due to the correlation between the individual factors and E-Marketing adoption was reduced when the mediator enters (The external IT support, the intensity of national e-readiness). This result is in line with the recommendation of Awang (2014, P. 119) that suggests that a direct effect between the independent and dependent variable is decreased but still significant if a partial mediation occurs.

However, another internal related factor in organisational context has a positive direct relationship to technological attributes (standardised estimate= 0.84,  $P < 0.001$ ) and external IT support (standardised estimate= 0.75,  $P < 0.01$ ). Conversely, organisational factors have insignificant relationship to E-Marketing adoption (standardised estimate= 0.41,  $P > 0.05$ ), and to external factors including the business partner affiliation (standardised estimate= -0.08,  $P > 0.05$ ), the intensity of national e-readiness (standardised estimate= -0.82,  $P > 0.05$ ). The result is due to the correlation between the organisational factors and E-Marketing adoption was reduced when the mediator enters (The external IT support). This result is in line with the recommendation of Awang (2014, P. 119) who suggests that a direct effect between the independent and dependent variable is decreased and no longer significant if a complete mediation occurs.

Regarding the mediating role of external factors, this study found technological attributes partially mediates the relationship between individual factors and E-Marketing adoption. The result infers that the attributes of individuals toward the new technology adoption in Iranian distribution firms to some extent is dependent on the technological attributes (perceived benefits, perceived relative advantage, compatibility, cost effects and the sufficient accessibility to internet resources) in adopting E-Marketing technology. Although, the decision makers (individuals) have a positive behaviour toward adoption, the E-Marketing tool is easy to use, and it results to an enhancement in their job performance. However, to a degree, this adoption depends on the availability of sufficient internet resources, the costs, and whether the new technology is compatible with the firms' existing system. Although with the limited availability and high costs, still they will be able to adopt and implement. However, the outcomes will not be as expected, and in a long-term, it may have negative impact on the individuals' behaviour toward the new technology. Similarly, the technological attributes mediate the relationship between the organisational factors and E-Marketing adoption by Iranian distribution firms. The finding shows that, Iranian distribution firms' dependence on technological attributes (Perceived benefits, perceived relative advantage, compatibility, cost effects and the sufficient accessibility to Internet resources) in adopting E-Marketing technology. Although, organisations meet the entire requirements needed for E-Marketing adoption.

Consequently, the business partner affiliation does not mediate the relationship between the individual factors and E-Marketing adoption. The result might be due to individuals within this study (managers/top managers) do not consider the business partners (suppliers/customers) when decide to adopt E-Marketing and do not amend their technology systems in the favour of the business partners as they may not have accepted the adoption yet or might be in the high level of E-Marketing implementation. Thus, business partners will not impact on individuals' decision for adoption of E-Marketing. Also, the business partner affiliation does not mediate the relationship between the organisational factors and E-Marketing adoption. The result could be due to the firms in this study, do not consider and pressurised for any changes in the level of E-Marketing implementation according to the circumstances of their business partners or their requirements.

The intensity of national e-readiness partially mediates the relationship between individual factors and E-Marketing adoption. The result indicates that even if the individuals have positive behaviour toward the adoption, the E-Marketing adoption boost the individuals' performance and the management fully supports the adoption of new technology. Yet to some extent, the successful adoption depends on the e-readiness of the external environment such as the e-readiness of the country, industry or market forces, in the other word, the lack of national e-ready would negatively influence the individuals' decision for the adoption although it is easy for them to use. However, the intensity of national e-readiness does not mediate the relationship between the organisational factors and E-Marketing adoption of Iranian distribution firms. This shows that, the strong managerial structure and high knowledge of management and employees on IT affect the organisations on the adoption of E-Marketing, regardless of the intensity and level of national e-readiness in the country or industry.

This study found that external IT support partially mediates the relationship between individual factors and E-Marketing adoption. The result infers that individual within firm moderately dependence on getting further supports from the IT expertise and consultants in adoption of E-Marketing. Although the adopted technology is easy to use, free from effort, and add boost to the individuals' performance, yet the everyday changes of the technologies, techniques, and software, require the individuals to get further support from the external IT expertise and consultants from time to time for the fast adaptability of them to the developed new technology. Similarly, external IT support mediates the relationship between the organisational factors and

E-Marketing adoption by Iranian distribution firms. The result may be due to the need of Iranian distribution firms to be more competitive within the global and national marketplace as well as the industry itself. For that, there is always a need to have an updated system that is adapted and modified according to the latest technology and new developed E-Marketing tool. Thus, there is always an essential requirement for the organisations, to get further consultation from IT experts that are dominant to the latest developed E-Marketing tool.

### **10.2.2.2 E-Marketing Impact on Iranian Distribution Firms' Marketing Performance Key Findings**

The other purpose of this study is to identify the impacts of E-Marketing adoption on Iranian distribution firms' marketing performance. The marketing performance was measured in two-fold included the current and future for both financial and non-financial performance measures. There were two variables explained within the financial performance included the firms' total profitability growth (measured by four items within the survey questionnaire) and sales growth (measured by three items within the survey questionnaire). Conversely, the non-financial performance was expounded by four items included Knowledge performance (measured by five items within the survey questionnaire), operational performance (measured by four items within the survey questionnaire), efficiency performance (measured by twenty-five items within the survey questionnaire) and the realisation of firm's objectives (measured by three items within the survey questionnaire).

### **E-Marketing Impact on Current and Future Financial Performance of Iranian Distribution Firms' Key Findings**

The results of the hypotheses analyses testing and the multiple regression analyses in regard of the impact of the E-Marketing adoption indicates that there is a positive impact on the current financial performance of Iranian distribution firms (refer to chapter 9). The adjusted R square ( $R_2$ ) equal to 0.179 indicates that the variables related to the current financial performance explains 18% of the variability in E-Marketing adoption. Therefore, the percentage shows that the model fits in a good way.

Moreover, the results of the analyses demonstrates that all items' mean scores are within the upper half of the distribution within the model, the E-Marketing adoption is related with 1) Firm's total profitability growth ( $M=3.6061$ ); 2) Gross profit margin ( $M=3.5584$ ); 3) Net profit

from new operations (M=3.6061); 4) Increase on return on marketing investment (M=3.6190); 5) Increase sales growth (M= 3.7446); 6) Creation of new markets (M= 3.7359); and 7) Increase in market share of products/services (M= 3.7403).

Furthermore, the result of the one sample t-test indicates that the observed means of the current financial performance indicators are less than ( $P < 0.001$ ) and significantly different from the mid-point of the scale 3.00. Hence, the results confirm that all indicators of current financial performance within this research context are on positive side.

Similarly, the results of the hypotheses analyses testing and the multiple regression analyses in regard of the impact of the E-Marketing adoption indicates that there is a positive impact on the expected future financial performance for the Iranian research distribution firms (refer to chapter 9). The adjusted R square ( $R_2$ ) equal to 0.179 indicates that the variables related to the future financial performance explains 18% of the variability in E-Marketing adoption. Therefore, the percentage shows that the model fits in a good way.

In addition, the results of the analyses demonstrates that all items' mean scores are within the upper half of the distribution within the model, the E-Marketing adoption is related with 1) Firm's total profitability growth (M= 4.6061); 2) Gross profit margin (M= 4.5325); 3) Net profit from new operations (M= 4.6234); 4) Increase on return on marketing investment (M= 4.5455); 5) Increase sales growth (M= 4.6320); 6) Creation of new markets (M= 4.6104); and 7) Increase in market share of products/services (M= 4.5671).

Also, the result of the one sample t-test indicates that the observed means of the future financial performance indicators are less than ( $P < 0.001$ ) and significantly different from the mid-point of the scale 3.00. Hence, the results confirm that all indicators of future financial performance within this research context are on positive side.

Therefore, based on the results of the above analyses this research recommends that the current and future financial performance are dependent on the E-Marketing adoption by Iranian distribution firms. The findings are consistent with the previous works such as Sheikh, Sheikh, Shahzad, and Ishaq (2017); Chong, Man, and Kim (2018); and Rahayu (2015) adoption of new technology tool by firms has a significant and positive relationship with the firms' market performance. Similarly, Zhu and Kraemer (2004), and Teo and Pian (2003), found correlation

between the firms' financial performance and new technology adoption the significant enhancement in the firms' financial performance can only be experienced and recognised by extensive adopters. Zhu and Kraemer (2004) state in their findings that, e-adoption resulted to a high influence on "widening of their sales capacity" and enhanced their sales revenue. Teo and Pian (2003) in their empirical study found a positive impact of the web adoption on firm's growth, in terms of annual sales, financial assets, market share, ROI, and better achievement of firm's aims. Also, Wu and Chuang (2010) indicate in their result of a relationship between e-SCM adoption to both financial and non-financial marketing performance. In another study by Thi (2006), found that E-Commerce adopters have achieved significant growth in the firm's performance of Malaysia in the manufacturing sector (which represented to the firms' profitability, sales growth, market share, financial resources, and the firms' image) when compared to the low and medium adopters. Also, Popa *et al.* (2018) in their empirical study found that e-business directly impacts on the financial performance of the firm regarding return on assets and cost reduction.

### **E-Marketing Impact on Current and Future Non-Financial Performance of Iranian Distribution Firms' Key Findings**

The results of the hypotheses analyses testing and the multiple regression analyses in regard of the impact of the E-Marketing adoption indicates that there is a positive impact on the current non-financial performance of Iranian distribution firms (refer to chapter 9). The adjusted R square ( $R_2$ ) equal to 0.201 indicates that the variables related to the current non-financial performance explains 20% of the variability in E-Marketing adoption. Therefore, the percentage shows that the model fits in a good way.

Moreover, the results of the analyses demonstrates that all items' mean scores are within the upper half of the distribution within the model, the E-Marketing adoption is related with 1) Change in Customer Ordering (M= 3.6537); 2) 24/7 Availability of after sale services (M= 3.7229); 3) Order Accuracy (M= 3.6277); 4) Process Enhancement (M= 3.7489); 5) Quality Improvement of Service/Product (M= 3.7186); 6) Improve in customer services (M= 3.7706); 7) New service (M=3.7576); 8) Increase the accessibility to more customers (M=3.8009); 9) Support linkage with suppliers (M=3.6580); 10) Increase the ability to compete (M=3.8571); 11) Support cooperative partnership in the industry (M=3.8615); 12) Improve collaboration and partnership among firms in order to increase the market share (M= 3.7792); 13)

Availability of expertise regardless of physical location (M= 3.7922); 14) Improved communications (M= 3.8312); 15) Faster delivery and Better service and support from supplier (M= 3.8442); 16) New customers (M= 3.8312); 17) Greater customer loyalty (M= 3.7143); 18) Cost reduction (M=3.7706); 19) Identify New Suppliers (M=3.7229); 20) Delivery Reliability (M=3.8052);21) Improved information (M=4.0000); 22) Better awareness of business environment (M=3.8701);23) Technological knowledge (M=3.8304); 24) New technology innovation (M=3.9004); 25) Enhancement of the managerial capabilities (M=3.7749); 26) Free the business of technical disruption/delays (M=3.7706); 27) Aid and improve the inter-company communication (M=3.8009); 28) Elimination of geographical restriction and market (M=3.8095); 29) Time reduction of routine service jobs (M=3.8225); 30) Enhancement of the company's brand image and reputation (M=4.1039); 31) Overall success in the distribution sector (M=3.8701) and 32) Longevity and sustainability in the market (M=3.8874).

Furthermore, the result of the one sample t-test indicates that the observed means of the current non-financial performance indicators are less than ( $P < 0.001$ ) and significantly different from the mid-point of the scale 3.00. Hence, the results confirm that all indicators of current non-financial performance within this research context are on positive side.

Similarly, the results of the hypotheses analyses testing and the multiple regression analyses in regard of the impact of the E-Marketing adoption indicates that there is a positive impact on the expected future non-financial performance for the Iranian research distribution firms (refer to chapter 9). The adjusted R square ( $R_2$ ) equal to 0.048 indicates that the variables related to the future non-financial performance explains only 5% of the variability in E-Marketing adoption. Therefore, the percentage shows that the model fits in a good way.

In addition, the results of the analyses demonstrates that all items' mean scores are within the upper half of the distribution within the model, the E-Marketing adoption is related with 1) Change in Customer Ordering (M= 4.5887); 2) 24/7 Availability of after sale services (M= 4.6970); 3) Order Accuracy (M=4.5844); 4) Process Enhancement (M=4.6147); 5) Quality Improvement of Service/Product (M=4.7879 ); 6) Improve in customer services (M=4.6320); 7) New service (M=4.6061); 8) Increase the accessibility to more customers (M=4.6364); 9)

Support linkage with suppliers (M=4.5541); 10) Increase the ability to compete (M=4.6623); 11) Support cooperative partnership in the industry (M=4.4892); 12) Improve collaboration and partnership among firms in order to increase the market share (M=4.7965); 13) Availability of expertise regardless of physical location (M=4.5887); 14) Improved communications (M=4.6364); 15) Faster delivery and Better service and support from supplier (M=4.6364) ; 16) New customers (M=4.6970); 17) Greater customer loyalty (M= 4.5844); 18) Cost reduction (M=4.6407);19) Identify New Suppliers (M=4.6364); 20) Delivery Reliability (M=4.6061);21) Improved information (M=4.6190); 22) Better awareness of business environment (M=4.6537);23) Technological knowledge (M=4.6494); 24) New technology innovation (M=4.6234);25) Enhancement of the managerial capabilities (M=4.6147); 26) Free the business of technical disruption/delays (M=4.6537); 27) Aid and improve the inter-company communication (M=4.5628); 28) Elimination of geographical restriction and market (M=4.5758); 29) Time reduction of routine service jobs (M=4.6494 ); 30) Enhancement of the company's brand image and reputation (M=4.7186); 31) Overall success in the distribution sector (M=4.7013) and 32) Longevity and sustainability in the market (M=4.6797).

Also, the result of the one sample t-test indicates that the observed means of the future non-financial performance indicators are less than ( $P < 0.001$ ) and significantly different from the mid-point of the scale 3.00. Hence, the results confirm that all indicators of future non-financial performance within this research context are on positive side.

Accordingly, based on the results of the above analyses, this research recommends that the current and future non-financial performance are dependent on the E-Marketing adoption by Iranian distribution firms. The findings are consistent with the previous works such as Abebe (2014), Garg and Choeu (2015), and Jahanshahi, *et al.* (2012) who found a positive and significant relationship between technology innovation adoption and enhancement of the organisations' performance, attributed to the increasing growth of ICT. Similarly, the findings are aligning with the results by Reino (2009), who found high significant contribution of online marketing adoption on efficiency performance in hotel sector. MacGregor and Vrazalic (2006), found that E-Marketing adoption has a positive impact on marketing activities of the firm. In this regard Sheikh, Shahzad, and Ishaq (2017), Rahayu (2015), found that e-marketing and e-commerce adoption have a positive relationship with all types of firm's performance and develops the intra and inter-organisational communication. Kendall *et al.* (2001) who

confirmed the significant impact of E-Marketing adoption on firm's operation effectiveness through the whole value chain state that, E-Marketing also have positive impact on acceleration of the decision-making process and giving opportunity to gain access to whole value chain, national and international market with better customer service. Subsequently Aydiner, *et al.* (2019), and Bayrak (2015), found the significant impact of e-marketing adoption on optimisation of business operations, better decision-making process, predicting the consequences, improving efficacy, improvement on the existing service and innovating new service/product, capturing the new market opportunities, and achieving to a competitive advantage against the rivals in the industry.

### **10.2.2.3 E- Marketing Implementation Key Findings**

The purpose of the study was to explore the different characteristics of E-Marketing by Iranian distribution firms to attain to a better understanding of the tools and level of E-Marketing implementation by Iranian firms in distribution sector. In this respect, E-Marketing can be conducted through various number of tools. A comprehensive review on the literature indicated that most common used by majority of organisations are search engine marketing and social media marketing followed by mobile marketing, email marketing, and intranet marketing. All these E-Marketing tools were adopted and implemented by the research distribution firms and based on the results of the hypotheses testing (refer to chapter 9). It was found that when implementing E-Marketing, distribution firms in Iran depend on more than one E-Marketing tool. Within this context, 90.5% of the research respondents (209 Iranian distribution firms out of 231 of the research firm participants) used search engine marketing as an E-Marketing tool. Furthermore, 85.7% of the research respondents used social media marketing as an E-Marketing tool, 82.3% of the respondents used mobile marketing, 79.7% of the research respondents used e-mail marketing as an E-Marketing tool, and % 65.4 of the research respondents used intranet marketing as an E-Marketing tool. Moreover, 85.7% of these distribution firms were using search engine marketing as well as social media marketing as E-Marketing tools, which shows that search engine marketing and social media marketing are the most commonly used E-Marketing tools by Iranian distribution firms when implementing E-Marketing. This is consistent with the findings of Terrance *et al.* (2018), and Catherine and Kielgast (2008) who found that search engine marketing is the most commonly used tool for conducting the marketing electronically.

Moreover, all the research respondents were implementing E-Marketing. The majority of these distribution firms 49.7% were in level 4 of E-Marketing implementation (business integration). On the other hand, 26.8% were implementing E-Marketing in a medium level, followed by 23.5% of the research participants were in level two implementation.

### 10.3 Chapter Summary

This chapter presented and discussed the research's empirical findings and highlighted the potential influence of the factors affecting the adoption of E-Marketing and figured out the impacts of Iranian distribution firms adopting E-Marketing. This chapter discussed the main findings obtained from hypotheses testing in chapter 9. The research findings provide positive and significant contribution to the body of knowledge in the field of E-Marketing in general and in factors influencing the E-Marketing adoption of Iranian distribution firms, as well as the impacts of this adoption on distribution firms marketing performance. Accordingly, this chapter is devoted with interpreting and discussing the research findings in chapter 9, and consequently, compared the findings with previous studies and literature undertaken within the research field. The discussion throughout this chapter were divided into three key extents which comprised of E-Marketing adoption, the different tools and levels of E-Marketing adoption and the impact of E-Marketing on Iranian distribution firms' Marketing performance.

This chapter started by discussing factors influencing the E-Marketing adoption by Iranian distribution firms. The findings demonstrated that Iranian distribution firms adopt E-Marketing based on the factors related to environmental attributes, individual factor, organisational factors and technological attributes, adopted from six theories of new technologies and is consistent with previous works including Le *et al.* (2012), Li *et al.* (2010), Rahayu (2015), Al-Qirim (2007), Chiu *et al.* (2017), Hanafizadeh *et al.* (2014), Jamali *et al.*, (2015), Al-Alawi and Al-Ali (2015), Al-Somali (2011), Harif (2017), Ghobakhloo and Tang (2013), and Rabie (2013). The highest impact on E-Marketing adoption by the research distribution firms were from the individual context and occurred by five factors namely perceived ease of use, management support, social normative influence, long-term consequences of PC use and job-fit with PC use. Environmental attributes showed significant and positive relationship to the adoption of E-Marketing. Also, organisational factors were important in facilitating the firms and in encouraging them to adopt and implement E-Marketing. Finally, technological attributes were tested and showed to have positive and significant impact on the adoption decision.

The research findings also suggest that external related factors (technological attributes, the intensity of national e-readiness and external IT support) mediate the relationship between internal factor (individual factors) and E-Marketing adoption, and external related factors (technological attributes and external IT support) mediate the relationship between internal factor (organisational factors) and E-Marketing adoption by Iranian distribution firms. The results show that technological attributes, the intensity of national e-readiness and external IT support influence the decision of individuals (manger/owner) of Iranian distribution firms, although individuals meet the requirements needed for E-Marketing adoption. Also, the results show that technological attributes and external IT support influence the decision of Iranian distribution firms although the firms meet the requirements needed for E-Marketing adoption. However, the business partner affiliation did not mediate the relationship between individual factors and E-Marketing adoption as well as, organisational factors and E-Marketing adoption, also intensity of national e-readiness did not mediate the relationship between organisational factors and E-Marketing adoption.

Afterwards, this chapter discussed on the findings related to the aspects related to implementation of E-Marketing by Iranian distribution firms. In this context, the findings were related to the different tools and levels of E-Marketing implemented by Iranian distribution firms were discussed.

Finally, the research findings suggested that there is a significant and positive contribution of E-Marketing adoption on the current and future financial and non-financial marketing performance of Iranian distribution firms. based on these research findings, the next chapter will present and discuss the accumulative knowledge contribution within the research field, the contribution, and implications of the research toward different academic and practitioners including policymakers, and distribution firms' owners/managers, the study limitations linked to it as well as suggestions and recommendations for future research in this field. The findings indicated that when implementing E-Marketing, Iranian distribution firms depended on more than one tool of E-Marketing tools. The findings also illustrated that social media marketing and search engine marketing are the most commonly used E-Marketing tools by the Iranian distribution firms, and that the majority of these distribution firms were implementing E-Marketing in level three of implementation (business integration).

## Chapter 11: Conclusion

### 11.1 Introduction

This research is one of the few studies that empirically investigate the relationship between the electronic marketing adoption and marketing performance as well as one of the first studies that investigate this relationship empirically in distribution sector context. This study is also one of the first studies to examine the different characteristics related to electronic marketing practices in Iran. This study also extends the integrative conceptual model introduced by Rabie (2013) in technological innovation adoption research and integrates six theories of new technology including Technological-Organisational-Environmental Framework (TOE), Technology Acceptance Model (TAM), Diffusion of Technology Innovation (DOI), Perceived E-Readiness Model (PERM), Model of PC Utilisation (MPCU), and Resource-Based View (RBV). This study discusses that individual/managerial perspective should be considered by firms in the process of E-Marketing adoption. Therefore, the new internal factors of individual/managerial attributes have been embedded in the integrative conceptual model to understand the behavioural impacts of decision-makers on E-Marketing adoption of Iranian distribution firms. Thus, this research extends the prior studies conducted by Aldwsry (2012); Alrousan (2014); Qashou, (2017); Hameed and Arachchilage (2016); Ng Picoto (2011); and Awa, Ojiabo, and Emecheta (2015). Based on the above current study focus, this chapter argues the research contributions, implications, limitations, and recommendations for future research studies in the field. The chapter begins with a brief explanation of the study contributions into the study of the E-Marketing adoption of distribution firms. Consequently, the study demonstrates the implications to academics and practitioners, followed by study limitations and recommendations for future study works within the field.

To answer the first and second research questions, five statistical analysis models were developed. To answer the first question, the research conducted various tests such as multiple regression, simple linear regression, one sample T-test to find the influencing factors of E-Marketing adoption and to test the impact of the factors related to environmental, individual, organisational and technological on E-Marketing adoption by Iranian distribution firms. To answer the second research question, Structural Equation Modelling was used to examine the role of external related factors in mediating the relationship between internal related factors and E-Marketing adoption. To answer the third question, several articles, empirical studies, and secondary case studies on Electronic Marketing, Mobile Marketing, Social Media Marketing,

Search Engine Marketing, -E-Mail marketing, E-Commerce and E-Business were studied. The results of these review and both exploratory and quantitative phases were identified tools, and levels of Electronic Marketing implementation in Iran. Accordingly, to answer the fourth research question, which is related to impact of E-Marketing adoption on current and future marketing performance of both financial and non-financial measures of Iranian distribution firms, simple linear regression and one sample T-test were implemented.

Consequently, this study has been achieved the research aims and objectives. This study to address the objectives, deployed a triangulation approach, initiated from an in-depth review of the extant literature by systematically commencing from prior studies with the field, Consequently, to purify the findings from the review of the extant literature, the researcher conducted in-depth semi-structured interviews. This study has developed the conceptual framework and hypotheses by relying on the findings from the exploratory interviews. Therefore, the study achieves the fifth objective of the study.

To confirm the conceptual framework, A combination of online and traditional mail survey questionnaire was conducted to examine the study hypotheses empirically. The study analysed 231 data collected from survey questionnaire with several statistical methods containing of Cronbach-Alpha test, simple linear and multiple regression, one sample T-Test, and structural equation modelling (SEM) and found that determinants factors of E-Marketing adoption of Iranian distribution firms are vary. All measures related to environmental, individual, organisational, and technological characteristic have a significant relationship to E-Marketing adoption by Iranian distribution firms. The study also found technological attributes, and the external IT support mediate the relationship between organisational factors and E-Marketing adoption as well as technological attributes, the intensity of national e-readiness, and external IT support mediate the relationship between Individual factors and E-Marketing adoption by Iranian distribution firms. Hence the study achieves to the first and second objectives. The findings indicate that Social Media Marketing and Search Engine Marketing are the most commonly used Electronic Marketing tools, and the majority of distribution firms in Iran are in level three of E-Marketing implementation. This addressed the third and sixth objectives of the study. Finally, E-Marketing adoption is found positively significant in impacting current and future marketing performance (both financial and non-financial measures) of distribution firms in Iran. This result, therefore, achieve the fourth objective of the study.

## **11.2 Contributions of the Study**

This research contributes to the research area in understanding the E-Marketing adoption of distribution firms' behaviour of Middle Eastern countries, particularly the influencing factors of E-Marketing adoption by Iranian distribution firms. The study contributions are described from the theoretical perspectives. The contributions of the study are discussed in the following section.

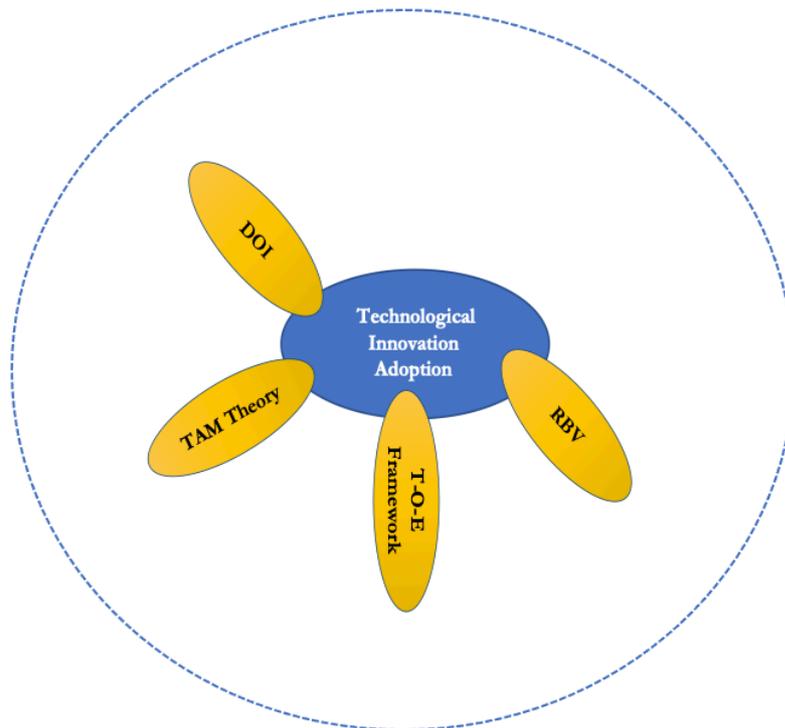
### **11.2.1 Contribution 1: The Theory of Distribution Firm E-Marketing Adoption**

Considering the theoretical stance, this research extends the existing integrative theoretical model through a more holistic approach by extending into a new perspective related to individual/managerial attributes and e-readiness of both external and internal environment of organisation. This study underpins and extends Rabie (2013) previous work in understanding distribution firms' E-Marketing adoption. The study argues that the adoption of technological innovation was based on the decision maker's practice, such as the characteristics and attributes. Hence, it is difficult to capture the technology innovation adoption of firms by using only one single theoretical framework. The study suggested that the new technology theories including Technology Acceptance Model (TAM), Technological-Environmental-Organisational Framework (TOE), Diffusion of Technology (DOI) and Resource-Based View (RBV) should be combined in a single research to understand the phenomena in an all-inclusive approach. The reason for integrating the new technology theories, as stated by Rabie (2013) is because these theories are complementary to each other. For instance, Resource-Based View concerns with the organisation's resources and capability to adopt new technology innovation. Conversely, the Technology Acceptance Model (TAM) concerns with individual's acceptance of technology innovation during the adoption process. DOI concerns with technical aspects of the innovation and forecasts the levels of the adoption of technology innovation which in turn accelerates the technology innovation adoption process. Finally, TOE framework focuses on the innovation adoption process from three perspectives of technological, environmental, and organisational insight.

Similarly, the current study underlines the holistic approach for understanding the influencing factors that impact the adoption of E-Marketing by Iranian distribution firms due to a different justification of each theory. Furthermore, the researcher discusses that understanding the distribution firms' E-Marketing adoption from one distinct theory provides indecisive data about the phenomena. The findings of the current study responded to Rabie (2013) and Hung

*et al.* (2011) who asserted that there is no single model or theory exists that have best describe the adoption of technology innovation of organisations individually unless one be integrated with other model(s) or theory (ies). If an individual theory, rules the pragmatic studies, the study in understanding E-Marketing adoption of distribution firms may suffer from diminution rather than growth in its expansion. Figure 11.1 illustrates the unique integrative theoretical model in understanding the organisations’ technological innovation adoption by Rabie (2013).

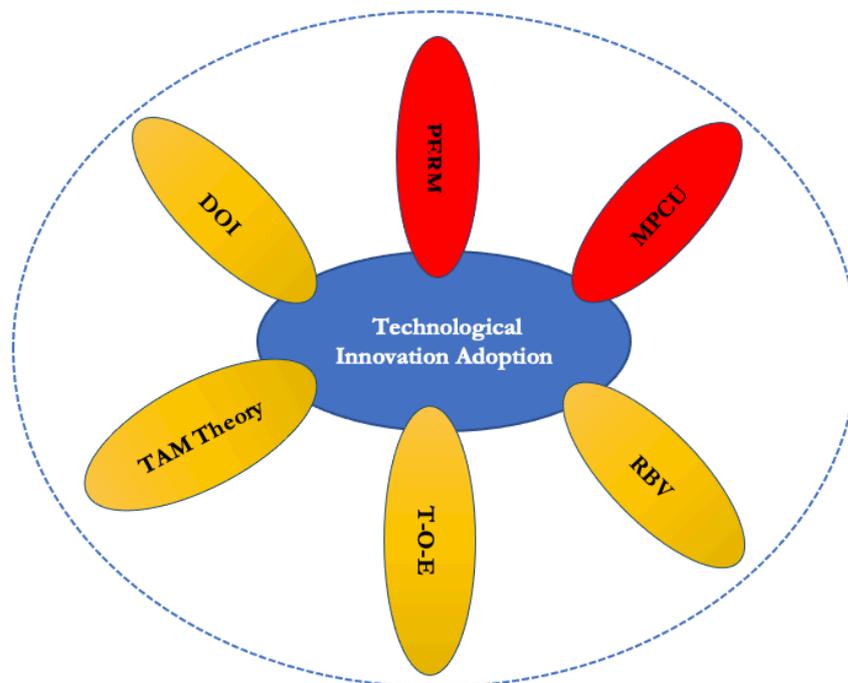
**Figure 11.1:** Integrative Theoretical Model in Understanding the Organisations’ Technological Innovation Adoption Suggested by Rabie (2013)



Since the integrative theoretical model proposed by the current researcher is a plethora of various studies (Ifeonu, 2014 (TOE) and (DOI); Shemi *et al.*, 2013 (TOE) and (RBV); Al-Somali, Gholami, and Clegg, 2015 (TOE) and (DOI); Alrousan, 2014 (TOE), (DOI), and (Hofstede’s Cultural Model); Ohunmah, 2015 (TOE) and (DOI); Aldwsry, 2013 (IT), (TOE) and (PERM); Idris, Edwards, and McDonald, 2017 (TOE) and (PERM); Abdulhakeem, Edwards, and McDonald, 2017 (TOE) and (PERM); Rahayu, 2015 (TOE) and (DOI); Chen and Chang, 2014 (TOE) and (PERM); and Gono, Harindranath, Özcan, 2013 (TOE), (DOI), (RBV), and (TAM). Therefore, based on the prior studies conducted within this research vein, this study extends the integrative theoretical model by embedding the MPCU and PERM in the model as shown in the following Figure 11.2. This model responded to the recommendation by Shemi *et al.* (2013), Hung *et al.* (2011) and Rabie (2013) who assert that in term of theoretical integration, further study is essential in developing countries contexts to comprehend how the firm’s e-

environment grows by deploying RBV combined with TOE, PERM, TBP, DOI and TAM. Hence, this current study, by adding MPCU and PERM, extends the model to also focus on the computer usage behavior and its impact on the individuals' behaviour in long-term as well as the unique external and internal e-readiness of organisations since evaluating the external and internal e-readiness of the organisation can provide significant predictions for the adoption of e-marketing.

**Figure 11.2:** Theories Deployed in this Current Study as an Extension of the Existing Integrative Conceptual Model by Rabie (2013) and Other Prior Studies within the Research Vein as well as the Suggestion by Shemi et al. (2013); Hung et al. (2011) and Rabie (2013)



### 11.2.2 Contribution 2: Factors Impacting E-Marketing Adoption by Distribution Firms

Based on the developed integrated model, the study found a list of possible factors influencing E-Marketing adoption by Iranian distribution firms. Determining factors influencing E-Marketing adoption in developing countries is crucial for engaging more distribution firms to involve in Electronic Marketing practices that in turn, provides these distribution firms with all the benefits related with Electronic Marketing, increasing their marketing performance and the countries' GDP. Furthermore, such adoption facilitates knowledge for Iranian distribution firms to develop their competitive advantage before involving in technological innovation adoption and implementation for their marketing activities.

This current study explored the relevant factors influencing the E-Marketing adoption by Iranian distribution firms through empirical data analysis. Based on the review of the extant literature, this study found various factors affecting E-Marketing adoption of distribution firms that have not been discovered empirically in Iran context. Among the factors are: i) national e-readiness; ii) business partner affiliation; iii) external IT support; iv) normative social influences; v) job-fit with PC use; vi) long-term consequences of PC use; viii) organisation culture; ix) receptivity (attitude) toward change; x) degree of formalisation; xi) the level of decentralisation; and xii) marketing capabilities of the organisation and xiii) sufficient accessibility to internet resources. These factors were excluded in prior studies conducted in Iran context (e.g.), Mohtaramzadeh (2017), Rahimnia and Hassanzadeh (2013), and Barkhordari *et al.*, (2017). Thus, this study contributed to understanding the role of these factors in influencing E-Marketing adoption by Iranian distribution firms.

Furthermore, the previous studies have considerably focused on SMEs in both service and manufacture sectors (refer to appendix 1) and ignored to investigate the specific type of industry, in particular the distribution industry that is one of the main contributors to Iran's GDP. Therefore, this research has extended the study context into the distribution industry as a service sector and contributed to understanding the common factors predicting E-Marketing adoption among Iranian distribution firms.

Moreover, this research investigated the role of external related factors (technological related factors, business partner affiliation, external IT support and the intensity of national E-readiness) in mediating the relationship between internal factors (organisational attributes and individual attributes) and E-Marketing adoption by Iranian distribution firms. The mediation role evaluation by deploying Structural Equation Modelling is an extension of the prior study undertaken by Al-Fahim *et al.* (2016) who investigated the role of internal factors (e.g., PU and PEU) in mediating the relationship of external factors (e.g., ICT readiness, regulatory support, competitive pressure, and financial institution support) – technological innovation adoption of Yemenis SMEs.

### **11.2.3 Contribution 3: The Relationship between E-Marketing Adoption and Iranian Distribution Firms' Marketing Performance**

This study conducted the review of the extant literature on E-Marketing Adoption-Marketing Performance and found the inconsistent results of previous works. For example, Qashou (2017), Ali and Kaldeen (2017), and Chanthinok, Ussahawanitchakit, and Jhundra-indra (2015) found

positive relationship or Uzoka, Shemi, and Seleka (2007), and Karakaya and Stahl (2009) found negative or no significant relationship between the E-Marketing adoption and marketing performance of the organisation. Moreover, there were no conducted empirical study on the impact of E-Marketing adoption on the marketing performance of distribution firms. Therefore, based on the inconsistent outcomes of previous studies and absence of study in the study context, this current study investigated and extended the knowledge into understanding the relationship between the current impact of adoption as well as the future impact of Electronic Marketing adoption and marketing performance of distribution firms concerning both financial and non-financial measures. The empirical examination of E-Marketing-Marketing Performance relationship is considered as a first attempt for understanding the phenomena on distribution industry as well as Iran context, which in turn, produces a remarkable knowledge contribution by this current study.

This study found that E-Marketing adoption has significantly contribute to Iranian distribution firms' current and future financial performance. The E-Marketing adoption the current and future financial performance measures of Iranian distribution firms predicts in a right way including Total firm's profitability growth; Gross Profit Margin; Net profit from new operations; Increase on Return on Marketing Investment; Increase sales growth; Creation of new markets and increase in market share of products /services. Thus, the outcome supports the prior study's findings of E-Marketing adoption significantly and positively impacts on the current and future financial performance. For example, this current study supports Rahayu (2015), who found a significant and positive relationship of technology innovation adoption with the firms' market performance. The investigation showed that Electronic Marketing adoption has a significant positive impact on current and future marketing performance of distribution firms regarding the financial measures.

Moreover, E-Marketing adoption has positively and significantly predicted current and future non-financial measures of Iranian distribution firms including change in customer ordering, 24/7 availability of after sale services, order accuracy, process enhancement, quality improvement of service/product, improve in customer services, new service, increase the accessibility to more customers, support linkage with suppliers, increase the ability to compete, support cooperative partnership in the industry, improve collaboration and partnership among firms in order to increase the market share, availability of expertise regardless of physical location, improved communications, faster delivery and better service and support from

supplier, new customers, greater customer loyalty, cost reduction, identify new suppliers, delivery reliability, improved information, better awareness of business environment, technological knowledge, new ideas about new technology services, enhancement of the managerial capabilities, free the business of technical disruption/delays, aid and improve the inter-company communication, elimination of geographical restriction and market, time reduction of routine service jobs, enhancement of the company's brand image and reputation, overall success in the sector and longevity and sustainability in the market.

Thus, the result supports the findings of previous studies which found E-Marketing adoption positively and significantly impacts on marketing performance regarding non-financial measures. For example, this study supports the research by Kendall *et al.* (2001), and Yamin *et al.* (1999) who confirmed the significant impact of E-Marketing adoption on firm's operational effectiveness through the whole value chain, state that E-Marketing also have a positive impact on speeding up the decision-making process and giving the opportunity to gain access to whole value chain, national and international market with better customer service or Rahayu (2015) who found technological innovation adoption has a positive and significant correlation with cost reduction and communication. The investigation showed that Electronic Marketing adoption has a significant and positive impact on current and future marketing performance of distribution firms regarding the non-financial measures.

The outcomes, confirm that E-Marketing strategy benefits Iranian distribution firms regarding their marketing performance. Thus, the finding filled the research gap in the context of the relationship of the E-Marketing-Marketing Performance of distribution firms in Iran.

#### **11.2.4 Contribution 4: Different Implementation Levels and Electronic Marketing Used by Distribution Firms**

This research is one of the first studies to validate empirically the different Electronic Marketing tools deployed by distribution firms when implementing Electronic Marketing as well as the different levels of such implementation. The research focused on examining the employment of different Electronic Marketing tools (intranet marketing, social media marketing, search engine marketing, e-mail marketing and mobile marketing) as well as different Electronic Marketing implementation levels by Iranian distribution firms. This research found Search Engine Marketing and Social Media Marketing are the most common used Electronic Marketing tools by Iranian distribution firms and the majority of distribution firms (half of the

research participants) are implementing Electronic Marketing at high level (business integration level).

### **11.2.5 Contribution 5: Using the Conceptual Model to Assess the Potential of Electronic Marketing for Distribution Firms in Middle-Eastern Developing Countries (Iran)**

This Research is the first study to investigate the current practices of Electronic Marketing by Iranian distribution firms. To achieve an in-depth understanding of the phenomena under examination, the research attempted to investigate the current elements related to Electronic Marketing adoption and implementation by Iranian distribution firms depending on semi-structured interviews. Twenty-Eight case studies were conducted through in-depth semi-structured interviews with Iranian distribution firms' owners/managers and/or top managers who involved in E-Marketing adoption and implementation process, that in turn, were examined and analysed. The results demonstrate that Iranian distribution firms' owners/managers and top managers have enough IT knowledge about Electronic Marketing and its different implementation tools. Furthermore, it was found that business partner affiliation, external IT support, perceived ease of use, job fit with PC use, Long-term consequences of PC use, normative social influences, owner/manager support, the degree of formalisation and decentralisation, marketing capabilities of the firm, management IT knowledge, physical infrastructure and sufficient accessibility to internet resources, cost effects, and compatibility are the most important factors that have a significant impact on the decision of Electronic Marketing adoption by Iranian distribution firms. These findings are the first findings to be produced from Iranian distribution firms in relation to their Electronic Marketing adoption and impact of such adoption on its marketing performance.

### **11.2.6 Contribution 6: Methodological Contribution**

This current study contributes to the research of different factors influencing Iranian distribution firms by adopting more holistic study approach using both qualitative and quantitative techniques. This research employed a triangulation of methodological technique to answer the research questions. The primary data and information were gathered through review of extant literature, qualitative in-depth semi-structured exploratory interviews with twenty-eight research participants, and survey questionnaire of 231 respondents. Moreover, this study employed several quantitative data analysis approaches contained Cronbach Alpha for the

reliability analysis, chi-square, simple linear and multiple regression, one-simple- T-Test, confirmatory factors analysis (CFA), and structural equation modelling (SEM).

Based on the extant review of the literature conducted to evaluate research methodology deployed in prior studies in the study area, it was found that there are limited studies regarding scholars conducted through the triangulation methodology, particularly in Iran context (see appendix 3). Moreover, there is an inadequate prior study in the research area for deploying several analysis approaches in an individual study involving multiple regression analysis by using SPSS as well as confirmatory factors analysis (CFA) and structural equation modelling (SEM) through AMOS. Therefore, this study has contributed to the research filed regarding the data analysis.

### **11.3 Research Implications**

The study has various implications to both academics/researchers and to practical/managerial world. These implications will be discussed in the next following section of the chapter.

#### **11.3.1 Theoretical (Academic) Implications**

In terms of academic implications, the research is a unique research in the field of E-Marketing in general and E-Marketing in distribution firms in particular. The study has not only made a considerable contribution to the accumulative knowledge in its direct field, but it has also some implications for the wider body of knowledge by developing a conceptual framework and measuring the impact of E-Marketing adoption on distribution firms' marketing performance. Moreover, as the theories of technology innovation in the field of E-Marketing is still in the immaturity phase and still is not well recognised, this research can be counted as a step for developing a theory in the electronic-marketing context.

On the other hand, the contribution of this study for academics and researchers is about understanding different factors that impact on the E-Marketing adoption, which numerous factors are yet undiscovered, and not examined in Iran such as individual/managerial and organisational attributes. Moreover, this study contributes to achieving to the limited number of studies in determining different influencing factors of Iranian distribution firms' E-Marketing adoption by utilising more holistic approaches implicating both qualitative and quantitative techniques. This study also contributes to the knowledge by differentiating E-Marketing determinants across distribution industry as previous literature were mostly focusing

on SMEs (focusing on both manufactures and services of all sectors) and tourism and hospitality industry in Iran context. The study expands the integrative models developed by Rabie (2013), Al-Somali (2011), and Rahayu (2015) by investigating the role of managerial/individual attributes with new variables adopted from MPCU and e-readiness elements on E-Marketing adoption. Finally, the contribution regarding the theoretical foundation, integrates six theories of technology adoption instead of using single or two theories.

Therefore, the implications of the current study for the academic and researchers, are summarised as the followings:

1. Determining several influencing factors of distribution firms' E-Marketing adoption (both internal and external factors) and their contribution to current and future marketing performance that is still, undiscovered in Iran. This study is possibly one of the first studies to suggest and validate empirically those factors that affect the adoption of E-Marketing by distribution firms. Moreover, the study provided the first attempt to explore E-Marketing practice by Iranian distribution firms. The findings add to the current knowledge in the field and encourage other researchers to conduct more research to investigate the practices of E-Marketing in Iran in different contexts.
2. Determining different factors of Iranian distribution firms' E-Marketing adoption by deploying more holistic study techniques involving both qualitative and quantitative research approaches.
3. Differentiating E-Marketing adoption determinants across specific sector (distribution industry) as prior literature highly concentrated upon SMEs in both service and manufacture sector and ignored to determine and pay attention to a specific sector type.
4. This study is the first to validate empirically the relationship between E-Marketing adoption and marketing performance among distribution firms. The study developed, tested, and validated the model both conceptually and empirically. This again provides other researchers with a valid model to be used to investigate the impact of E-Marketing adoption on marketing performance in other types of industries or in other countries. Also, this study expands the prior studies in marketing performance measurement, from focusing only upon current impacts, into both current and future impacts as well as from focusing only upon financial performance, into both financial and non-financial performance.

5. This study Developed the extant literature in determining influencing factors of distribution firms E-Marketing adoption, from focusing only on external factors, into internal and external factors of the organisations.
6. This study extended a new conceptual framework of understanding the potential of distribution firms E-Marketing adoption in Middle Eastern developing countries particularly in Iran.
7. This study found different implementation levels of e-marketing as well as e-marketing tools used in the distribution firms and Iran context.
8. The research's contribution to the theory of E-Marketing by the examination of the phenomenon under investigation in distribution context is another implication of this research for academics. Through this, the research also contributes to the expansion of the studies on E-Marketing in distribution firms. Almost all the studies in the field are directed at examining the impact of E-Marketing adoption and/or implementation on business performance. However, this research examines the impact of E-Marketing adoption on marketing performance, which can guide other researchers when examining this impact in other types of industries or in other developing countries.
9. There is a limited integration of research results in the fields of marketing, information systems and sociology (El-gohary,2009). Undeniably, such a limited exchange of ideas across these fields will further reduce the understanding of how different companies use and adopt E-Marketing. This study aimed to integrates theories among marketing, IS, and IT through testing and expanding the integrated model developed by Rabie (2013) by adding PERM and MPCU in the context of E-Marketing adoption by distribution firms. This was done as an attempt to increase the exchange of ideas across the fields of marketing and IS which in turn will lead to better understanding of how different companies use and adopt E-Marketing. Thus, in term of new technology theories' adoption, this research combines six theories of new technology adoption instead of deploying only single or two theories.

In summary, this research has provided a significant contribution to the advancements of the theory by providing a model that can be used to understand the adoption of E-Marketing by distribution firms as well as the impact of this adoption on distribution firms' marketing performance.

### **11.3.2 Managerial (Practical) Implications**

This study provides useful information on the individual/managerial and organisational attributes where owner/managers can learn how to be more vigilant and attentive to vagueness and turbulent of the constantly changing environmental and technological factors that impact E-Marketing adoption process. Managers, CEOs, Marketers, Governmental agencies, business support agencies, policymakers, IT consultants, software vendors, and all other parties that want to deploy or are developing their business, may also benefit from this research by accommodating the most suitable support services for distribution firms to enhance their business growth and marketing performance through E-Marketing adoption strategy. These implications can be demonstrated as follows:

#### **Significance to Practitioners (Management of Distribution Firms)**

Firstly, not only this study provides an empirical evaluation of the most important factors affecting the adoption of E-Marketing by distribution firms, but it also measures the importance of such factors which were generated from a comprehensive review of the relevant literature as well as the outcomes of the research exploratory studies. Based on the importance of these factors revealed from the findings of the study, this research has potential for managerial/practical applications in the usage and adoption of Electronic Marketing by distribution firms. This study provides a pragmatic guideline for managers/owner, that will assist and aspire distribution firms or any institution that link with distribution sector (e.g., Product Distribution Management System, Iranian Distribution Industry Companies Association, Distribution License System, Capillary Distribution Management System, Distribution Companies' Association Committee, Distribution Companies Statistics System etc.) to use Electronic Marketing for conducting marketing activities or seek for determinants, that can increase the E-Marketing adoption process of their organisation. Moreover, they will have a better understanding about the different factors affecting the adoption of E-Marketing by distribution firms which then can be used in planning and directing the future policies, plans and strategies of these organisations. This will in turn increase the diffusion of E-Marketing practices by distribution firms and might lead to a positive impact on the economy.

Secondly, the conceptual model can be deployed as a guideline for managers to be involved in E-Marketing adoption process for conducting their marketing activities. This research can support managers in identifying which level of E-Marketing could be useful for their business as well as for managers who are keen in expanding their business and marketing activities to

assist in drawing a path and strategy for gaining more benefits from E-Marketing applications. For example, by using one of the E-Marketing tools such as SEO strategies or social media platforms.

Thirdly, the study findings confirm that IT theories (DOI, MPCU, PERM, RBV, TAM and TOE) are valid in illustrating the adoption of E-Marketing by distribution firms. The findings suggest that 21 factors, are the main determinant factors of the adoption of E-Marketing by distribution firms which can motivate and facilitates the adoption decision of distribution firms' managers/owner. Hence, governmental agencies, and nongovernmental organisations linked with distribution firms should aim at increasing distribution firms' managers and/or marketing managers awareness of these issues and how tasks can be supported by E-Marketing. Moreover, such organisations should aim at reducing apprehensions about the complexity of E-Marketing usage.

Fourthly, employing the same logic and based on the same findings' distribution firms' managers and/or marketing managers should aim at increasing the awareness of their employees about these issues and how tasks can be supported by E-Marketing, how the use of E-Marketing can create benefits for the enterprise and finally how E-Marketing practices can be easy to use and implement. Increasing employees' awareness about these issues will provide a very good supportive organisational culture towards E-Marketing which in turn will lead to a good impact on distribution firms' marketing performance.

For example, marketing capabilities is one of the significant factors of E-Marketing adoption with a positive impact, which is vital for managers when transforming from initial stages of adoption to a more advanced level. This will help them to consider and focus on growing and the essential capabilities that allow firms to market their goods/products online. Firms with high level of tangible and intangible technological resources are more likely to improve the opportunity and degree of the E-Marketing. Moreover, Management support factor is imperious for increasing the degree of e-marketing adoption. Management teams need to commit continuous support to e-marketing plans by offering a great level of resources to foster a better deployment of the IT. Managers have a key role in motivating the employees. If they have satisfactory behavior toward the technology innovation, there is likely a positive behavior from employees under their influence. In fact, managers by expressing their belief and participation

through team working, trainings, and programs can attract the employees' attention and change their behavior toward E-Marketing and its applications.

A good collaboration is crucial and beneficial for firms in running the business. Business partner affiliation as another influencing factor needs to be considered by managers when adopt and implement new technology applications. Business partner affiliations are essential connections and resources for planning the future, and to shape the knowledge about products/services change. If no business partner affiliation, there will be likely disagreements and the threat of ending the partnerships in the business journey with even a minor change. Thus, distribution firms need to keep a good collaboration with their partners, customers, and suppliers to speed up the adoption and implementation process, which in turn, lead to benefiting both internals and externals. Moreover, the compatibility of e-marketing to the internal IT infrastructure and the staffs' key capabilities is another influencing factor of E-Marketing adoption and efficient implementation. Here the point is that the managers/owners need to evaluate the alignment among E-Marketing applications and the organisations' current IT resources unless the result of the adoption will be a failure. Furthermore, the support of external IT consultants for all firm sizes is a vital factor. Firms, nonetheless, of their IT strategies, still would have difficulty in overcoming the everyday change technologies and the high competition within the sector. Using external IT support is a useful factor which enables firms to change the firm's old technology to the latest one, to plan for launch and expansion for marketing operations, and to identify the issues from different insight.

Managers/owners with great IT knowledge are more confident and have less vagueness through adoption of E-Marketing as well as they will take more risks toward technology innovation adoption which in fact enhances the speed of the adoption. Finally, it is important that Iranian distribution firms consider the level of formalisation during the initial stage of adoption as the firms require to be more flexible and open toward new IT resources as well as the degree of decentralisation. The participation of more organisational members in the decision-making process, will lead to more opportunities for various groups and individuals to express their opinions and creative idea of E-Marketing applications. Greater and more creative technology ideas will be derived in a decentralised organisation.

Fifthly, the study proves that there is a positive impact for Electronic Marketing Adoption and distribution firms marketing performance. Consequently, practitioners (managers) can derive a

better marketing performance by adopting and implementing E-Marketing within their companies. However, this does not mean that marketing effectiveness is automatically achieved with the adoption of E-Marketing. Such benefits of E-Marketing adoption are based on the proactive and knowledgeable use of E-Marketing forms and tools by marketing people within the firm which in turn will leverage the enterprise marketing efficiency and effectiveness.

Sixth, the study findings stress the great role of distribution firms' manager's skills in the successful adoption and implementation of E-Marketing. This will have some significant implications for the practitioners. Considering the growing information intensity, the very rapidly changing environment, the global economic problem, hard competition and the endless developments in IT, computers and communications technologies, distribution firms' managers should be extremely skilled, trained, efficient and able to take complete advantages of the benefits related to E-Marketing.

Finally, employing the same logic and based on the same findings, as well as findings related to the current practices of E-Marketing by Iranian distribution firms, the government through its agencies can use the E-Marketing adoption model developed within this study as well as its findings to increase the levels of E-Marketing adoption, diffusion and practices by Iranian distribution firms which will lead to a positive impact on Iranian economy performance in both the short and long term.

#### **Significance to IT Consultants, Web and Software Vendors, and IT Experts**

The study findings are also beneficial for IT consultants and web vendors to find a suitable strategy and model influencing each level of E-Marketing in distribution firms as well as the appropriate E-Marketing tools to be used for conducting marketing activities (e.g., if they need to have more social media presence or need to optimise the webpage for search engines, etc.). Moreover, this study will help IT consultants, to understand owners/managers' insight and knowledge in regard of E-Marketing applications, and to find the reasons for the slow adoption of E-Marketing within distribution firms. This, in fact, allows them to develop solutions for distribution firms' needs in employing the suitable level of E-Marketing. Furthermore, relative advantage as one of the influencing factors of E-Marketing adoption of distribution firms, entails IT consultants, to train and instruct owners/managers and decision-makers on E-Marketing benefits through webinars, seminars, workshops, or personal visits. Accordingly,

understanding influencing factors for adoption of E-Marketing applications will allow IT consultants, to design business strategies for the extensive adoption of E-Marketing. Moreover, the factors will help software and web vendors, and mediating agencies to understand the issues distribution firms face, the distribution firms' characteristics, take more dynamic role to foster fruitful dissemination in these firms, and target those segments whose characteristics demonstrate that they are expected to become E-Marketing adopters.

Finally, IT consultants and software vendors can assist firms to assess the resources required for successful adoption of E-Marketing, suggest methods to support firms to understand the fundamentals for launching their business online, and to use it with marketing activities. In overall, IT consultants and web vendors need to understand that each phase in the technology innovation adoption process is a possible refusal point. For instance, it is likely to refuse the technology innovation within the initial phase of adoption by just disregarding about it after acquiring sufficient knowledge since disappointing results were achieved.

#### Significance to Governments, Governmental Agencies, and Policymakers

This study for governments, governmental agencies and policymakers provides useful implications via the establishment of support guidelines for distribution firms that would lead to the improvement of more competitive Iranian distribution firms. Based on the results of this study, the governmental agencies will have a greater understanding of the different factors impacting the adoption of Electronic Marketing by distribution firms. This, in turn, can be deployed in developing and managing future policies, regulations, strategies and tactics that can lead to enhancement in the dissemination of Electronic Marketing by firms (in general) and distribution firms (in particular). Subsequently, the government may attempt to develop improved infrastructures and facilities to the advancement of distribution firms' engagement in technological innovation adoption process. The accommodations ought to include enhanced physical infrastructure, adequate shipping infrastructure, increase the national e-readiness, awareness of individuals from the benefits of E-Marketing, and other technological innovations to improve Iranian distribution firms' competitive advantage. Moreover, by relying on the influencing factors of E-Marketing adoption, governments and policymakers can develop appropriate policies and regulations, trainings and learning programs, and provide funding for firms who aspire to adopt and implement such technology to improve their marketing performance. This, in fact, indirectly influence the economy and GDP.

Finally, the results of this study can assist policymakers in developing and planning policies and regulations and finding solutions and overcoming challenges delaying E-Marketing adoption in distribution sector in Iran. Policymakers, in terms of rules and regulations, need to liberalise the Iranian telecommunication sector that might have a significant role on E-Marketing adoption of distribution firms. The government need to also reduce taxes and prices on innovation technology means like servers and routers, to accelerate E-Marketing adoption process. In terms of legislatures, the policymakers and government, must develop a firm governing framework to support the adoption and to protect both firms and customers in contradiction of online fraud. Finally, distribution firms in Iran would have no issues to adopt full and complex levels of E-Marketing applications, if they get financial support and funds (long-term or low-level interest loans) from government, as it was found that one of the main concerns of distribution firms' managers/owners were setting up costs and pricing problems although it will reduce and cut other costs.

#### **11.4 Limitations of the Study**

Despite of several contributions of this study and although lots of attention has been given and put into designing of this research including the new developed methodology, exploratory phase of the study, data collection and analysis, this research has several limitations in terms of time and financial limitations, study samples, research methodology, and the wideness of the study area under investigation. The mentioning of these limitations can be beneficial to future study.

##### **11.4.1 Time and Financial Limitations**

This study has time limitations in both qualitative and quantitative data collection phases. Within the qualitative exploratory semi-structured interviews, the researcher conducted only 28 interviews out of targeted 40 interviews of both face to face and focus group interviews. The researcher challenged difficulties in setting arrangements with the potential participants of the Iranian distribution firms that involved in E-Marketing adoption and implementation for conducting their marketing activities (managers/owners, CEO, top managers who involved with E-Marketing adoption and implementation process) since they were always busy.

Due to cultural differences and trust issues, when it comes to interviews and gathering sensitive data in Iran, the preference is on face-to-face interviews rather than online. Moreover, due to the lack of trust, they would give information as less as they can. For that reason, the researcher was unable to conduct online interviews. To gain accurate information, the data collection

process conducted through physical travelling to Iran to get accurate data, see participants' appearance, do more challenging interviews through focus groups, and even to see the organisational culture and ethnicity. For that reason, the researcher only had few weeks for conducting the interviews and needed to arrange the interviews with participants in a limited period. Moreover, the focus group interviews' arrangements were challenging since it was conducted with managers/owners and top managers who were busy as it was challenging to find an available date and time that everyone be able to participate in the interview. Out of 28 conducted interviews, 12 participants were agreed for the focus group interviews, and 16 agreed for having face to face interviews due to the unavailability of top managers and the limited time of the researcher for conducting the interviews. Within the survey questionnaire data collection, this research collected only 231 responses out of 300 questionnaires emailed and distributed online through online survey software. Moreover, the time differences between Iran and United Kingdom had restricted the process of following up via telephone calls.

Another limitation in time is related to the nature of this study, this research is cross-sectional, and the cross-sectional study only imitates the participants' opinions, insights, and experiences towards E-Marketing adoption at single-time point. Though, insights and opinions might change during time. Thus, the researcher suggests conducting longitudinal study in future work to offer more vigorous evidence that describes the factors related with E-Marketing adoption and give more validation to the conceptual model proposed in this research.

In the other word, the research impact is just at a single time point and as the firms' business strategies, the external environment, and the technological innovations are constantly changing, the influencing factor of adoption in the present, may not be significant and important in few years. For example, slow speed of internet was found as one of the influencing factors for adoption of E-Commerce by Shemi (2012), however, this study has not chosen this factor as one of the influencing factors for E-Marketing adoption, since the speed of internet and IT infrastructure in Iran has dramatically changed since 2005 and left the country with no issue called slow speed, specifically, with the launch of 3G,4G and LTE in 2016. This made Iran the first five countries in the Middle Eastern region that have had a growth percentage of more than 20 and had the highest level of development in ICT (Burkhart and Grey, 2009; MCI,2021; Iran Tele-Communication, 2021; and DataReportal, 2021).

Moreover, as a strategic decision, the process of decision-making associated with E-Marketing might improve over a period. Furthermore, the nature of Electronic Marketing practices recommends that evaluating the influence of Electronic Marketing adoption on distribution firms' marketing performance may be complex if assessed over a short period of time. Thus, some of the scholars prefer to select the longitudinal case study method, that tends to appropriately capture the distribution firms' E-Marketing involvement from the initial stages to the advanced stages. Thus, the time limitation stopped and restricted the researcher from such an approach.

In terms of financial limitations, the issue regarding the high international telephone charges, the cost of the travelling from United Kingdom to Iran as well as the domestic travelling, has restricted the interview process and resulted in conducting face to face and focusing group interviews with managers/owners, CEO and top managers in Tehran, the capital of Iran. Moreover, the high cost of postal survey questionnaire restricted the choices to the researcher by conducting the survey questionnaire through direct emails and online questionnaires to decrease the high costs. Furthermore, due to the cultural differences as explained previously, the researcher travelled to Iran to hand-in the questionnaires in person to the participants in the capital city, Tehran and this led to high costs for the researcher.

#### **11.4.2 Methodological and Research Sample Limitations**

There are also some limitations regarding methodology and study samples related to qualitative data analysis approach in the exploratory phase of the study. The study deployed manual analysis approach rather than using advanced qualitative analysis software such as Nvivo, Computer-assisted qualitative data analysis software, ATLAS.ti, and MAXQDA due to the time constraint. As this study requires to purify the influencing factors of distribution firms' E-Marketing adoption from reviewing the extant literature, the researcher decided to accelerate the interview data analysis of qualitative phase in a simple data analysis method.

In regard of the study samples, this study deployed only samples of distribution firms in Iran. In contrast, the future works might expand to regionally based studies such as Middle Eastern developing countries or other developing countries. Moreover, the study only focuses upon samples of firms in distribution sector. Thus, the outcomes found in this study apply to distribution sector instead of all industrial sectors. In contrast, future works may focus on other particular service sectors such as tourism and hospitality, communications, electronics and

IT, Banking, Energy, gas, petroleum, and Higher education (World Economic Outlook Database, 2020) that are currently the leading service sectors contributing to Iran's GDP. Moreover, since the data deployed in this research, is from distribution firms in Iran, there is a limitation for the generalisation of this research to only Iranian distribution firms. Even so, this research is expected to be beneficial as a source for conceptual model development of E-Marketing adoption in other Middle Eastern developing countries.

This study is limited to 231 participants of distribution firms' managers/owners, CEO, and top managers and not extended to business customers and suppliers. The future study may extend the study to also external's perspectives. This might lead to the emergence of new factors that influence on the adoption. Moreover, since this research was not carried out in Iran and in particular in distribution sector before, it was difficult to access to secondary data related to the research population and the number of the distribution firms with their own website and implemented E-Marketing process. Gathering the accurate secondary data was time-consuming and delayed the researcher. The other limitation is regarding the questionnaire survey of this research that developed in English language. However, since the data collection process was in Iran, it needed to be translated and changed into two languages of Farsi and English. Thus, both questionnaires required to be tested in terms of the validity and reliability, which was quite time-consuming.

#### **11.4.3 Robustness of the Research Field Limitations**

The study has constraints concerning the broadness of the research area coverage. As discussed previously, Electronic Marketing is new developed field in Middle Eastern developing countries context where the theory is still in its initial stage and influenced heavily by the indistinct method of dealing with the conception and explanation of the Electronic Marketing. Moreover, it suffers since it is associated with various marketing scopes and occurs in a very fast-changing environment. This inspired the researcher to follow an experimental and pragmatic method in this research to improve an all-inclusive and integrated understanding of Electronic Marketing. This necessitated enhancement within the extent of the research by revising a large body of suitable literature and gathering a great set of associated data. However, whilst the researcher has tried to cover such an obligation by revising several literatures in the context of marketing, distribution firms, Information Technology/Information System, and Information Communication Technology, and pursuing different sorts of information from both

secondary and primary informants, it might not be argued that the experimental analysis of this research has derived from all diverse problems linked to this standpoint. Within this context, time frame, restricted access to financial resources, distribution firms, organisational data, and time frame were the key limitations.

### **11.5 Recommendations for Future Researchers**

This study has reserved several areas for consideration for future study in the field study of E-Marketing adoption of distribution firms. The research has various possible recommendations for future study including methodological perspective; the scope of the research and investigation; and theoretical contribution. Based on the outcomes of this research, the following discussions concern with the recommendations for future study:

Firstly, through combining and expanding the MPCU and PERM models, the study provides a new instrument modified and adapted to E-Marketing. On one hand, researchers can use this modified instrument for the adoption of E-Marketing in other types of industries or in other countries. On the other hand, this instrument can motivate researchers to develop better instruments for investigating the adoption of E-Marketing in the future.

Secondly, as this research, has expanded the integrative theoretical model through embedding the model of PC utilisation and perceived e-readiness model to understand the individual's attributes to the computer usage and its impact on their behaviour in long-term as well as the unique external and internal e-environment of organisations in the process of distribution firms E-Marketing adoption, this study recommends future researchers to use this new model and theoretical base in interpreting distribution firms E-Marketing adoption. Within the distribution process in Iran, the physical travelling is obligatory for the assigned employees in delivery tasks and for representors. Since the distribution firms in Iran are still dependent on combination of traditional and modern techniques, these factors within the theory are important factors to understand the behavior of individuals toward using PC related tools and the impact it may have, in long-term. Thus, the employees who refuse to use PC and its related applications, after understanding the impacts this usage have on their performance, they will have more openness toward technology innovation and this, in fact, would result to accelerating the adoption process within the organisation as a whole. Hence, a further research agenda might draw attention to

improving the understanding of these factors in a different setting. Within this context, future research might focus on the following points:

1. Similar studies could be carried out to investigate E-Marketing adoption by distribution firms in other countries depending on the same proposed factors generated within this study.
2. Similar studies could be carried out to investigate E-Marketing adoption by manufactures depending on the same proposed factors generated within this study.
3. Within this study, the usage of structure equation modelling was for the first order model, but future research can look at second order models.
4. Future studies could be carried out to investigate E-Marketing adoption depending on other factors than the ones generated within this study.

Afterwards the results of these studies can be compared with the results of this research.

Thirdly, it is recommended that future researchers to examine determinants of Iranian distribution firms E-Marketing adoption by deploying the heterogeneous model as the paradigm is always linked with the research of firms in all sizes for E-Marketing adoption. The utilisation of this theory may help researchers in interpreting the role of managerial/individuals' behaviour in influencing the process of E-Marketing adoption by Iranian distribution firms. Future studies could be undertaken to test the conceptual model in other service sectors, depending on the same suggested factors generated in this research.

Fourthly, with regards to the scope of the research, it is recommended future study to undertake the examination of the same phenomena in other developing countries as the study in investigating the influencing factors of E-Marketing adoption by distribution firms is scant in other developing countries, particularly Middle Eastern developing countries.

Fifthly, this research has also presented new factors influencing E-Marketing adoption of distribution firms regarding the individual's behavior toward computer usage. Thus, in-depth research required in future studies to understand this individual/managerial related factors. Future study may use qualitative methods such as case studies and in-depth data gathering to interpret the phenomena.

Sixth, as the deployment of Structural Equation Modelling (SEM) is discovered scarcely in prior studies in this study area, future work needs to examine the role of internal related factors

in mediating the relationship between external related factors and E-Marketing adoption of Iranian distribution firms. Moreover, it will be more effective the future work examines the role of E-Marketing adoption in mediating the relationship between the influencing factors and Iranian distribution firms marketing performance.

Seventh, future works are recommended to use the similar triangulation study approach as this method is still developing in the study area, particularly in the Middle Eastern developing countries and distribution context as the studies are scant within the literature. Even though triangulation approach necessitates an obligation to more attempts, time, and money, it has the advantage of removing the bias that is often associated with the usage of a single technique which in turn, will enhance the validity and reliability of the study conclusions. Within this context, future researchers can employ data, method, and methodological triangulation. Moreover, as stated earlier, this research is limited to 231 participants of distribution firms' managers/owners, CEO, and top managers and not extended to externals (business customers and suppliers). The future study may be extended to the external's perspectives within the same industry and country context. This might lead to the emergence of new factors that influence on the adoption.

Eighth, conducting future studies to measure the actual E-Marketing performance of distribution firms is highly recommended and the results of such studies can be then compared with the results of this research.

Ninth, conducting future studies to examine the relationship between the level of electronic marketing implementation and distribution firms' marketing performance is highly suggested. Although, the different stages of Electronic Marketing implementation by distribution firms were discovered within this research, examining the relationship between these stages and the distribution firms marketing performance is highly required as the review of the extant literature failed to discover a single research to examine such relationship from a distribution sector context. For the similar reasons, it is also suggested to conduct future works to explore the relationship between different Electronic Marketing tools, other service sectors as well as manufacturing sectors from one side and the marketing performance from the other.

Finally, although there is a growing trend toward conducting E-Marketing related studies in Middle Eastern developing countries, there is still a great need to conduct research studies to

investigate the different aspects of E-Marketing in Iran, the Middle Eastern developing countries as well as other developing countries since it is less represented in the literature.

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# Appendix

## Appendix 1: Extant Literature on E-Marketing Adoption by Industrial Sector from 1993 to 2021

### 1.0 The Literature

#### 1.1 An Overview

The key aim of this section is to investigate, and develop an understanding of the various study points regarding to researches of electronic marketing articles published between 1993 and 2021 in the field of electronic marketing. Indeed, the review of extant literature will support in making a record of prior articles in the field of electronic marketing that in turn is useful in determining the research gaps in the extant literature and thus help in managing the future study in the study field. On the other hand, as the model in the field of electronic marketing is still in its initial stage and not engrained, there is a great requirement for having further well-established studies that could be considered as a step through building a model in the field of electronic marketing. Accordingly, the research purposes to provide a comprehensive picture with reference to studies of electronic marketing articles published between 1993 and 2021. Commonly, due to the nature of study on electronic marketing is challenging to conduct since it is still considered as a vague concept for the most of academics and practitioners and the nature of electronic marketing study resources that are greatly distributed among several journals such as Science Direct (Elsevier), ProQuest, Summon (Birmingham City University catalogue), Emerald, and ABI databases.

Moreover, the study descriptors and the year published were determined within the electronic marketing in general and electronic marketing in distribution industry in particular. These descriptors include electronic marketing, social media marketing, intranet and extranet marketing, search engine marketing, mobile marketing, e-commerce, e-business, and email marketing. The items were chosen since they signify the essentials of electronic marketing and some of these items such as e-commerce or e-business were deployed within the literature equal to electronic marketing.

Study of internet and electronic marketing reveal that the evolution of technology began to appear within the literature in the late 1980s by study of Malone *et al.* (1989) and continued with other studies such as Samiee (1998), Porter (2001) and so on. By considering the World Wide Web that is one of the key elements of electronic marketing was launched in 1993 the study considers the time frame of e-marketing within the literature from 1993 and ends in May 2021 as the first step toward developing a record of prior articles in the field of electronic marketing. Hence by reviewing the extant literature of e-marketing, the study yielded 273 published articles in the study field from 1993 to 2021.

### 1.2 Extant Literature on E-Marketing Adoption by Industrial Sector from 1993 to 2021

Since this study aims to investigate factors of e-marketing adoption, and based on the review of extant literature, this research divides the industrial sector into two categories of i) manufacturing; and ii) service sector (i.e., educational institutions, hospitality and tourism, engineering, banks and financial institutions, ICT and information providers, and architecture). Previous studies on e-marketing adoption focused more on service sector and less to manufacturing. These can be seen from the extant review of literature conducted by the researcher. The researcher found 111 out of 273 articles reviews focused on E-Marketing adoption in the service sector. Moreover, study on the manufacturing sector accounted for only 39 articles 53 articles focused on both manufacturing and service sectors. As can be seen from the review of the literature e-marketing concept, majority of the scholars focused on service sector rather than manufacturing.

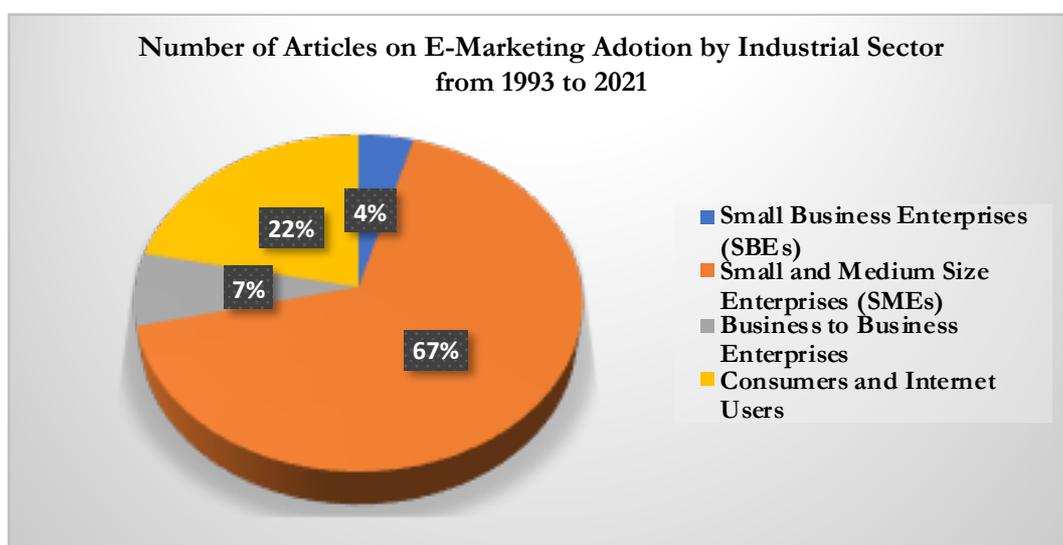


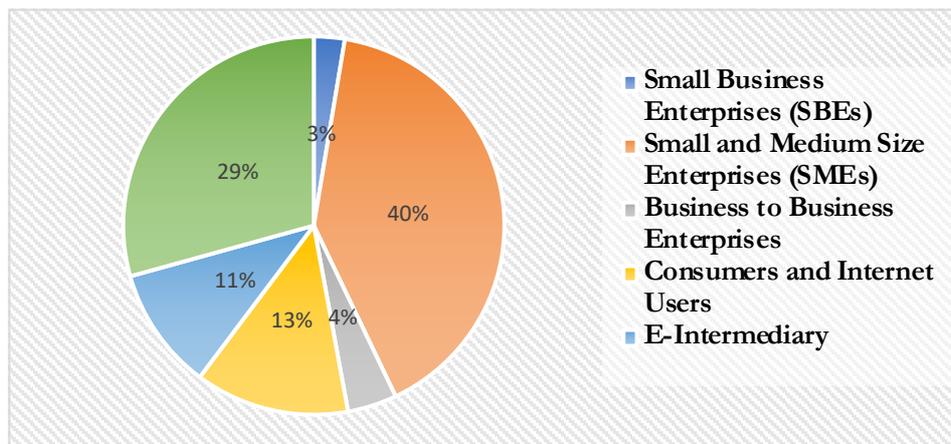
Figure 1.1: Extant Literature on E-Marketing Adoption by Industrial Sector

### 1.3 Extant Literature on E-Marketing Adoption According to Sample Unit

On the other hand, Table 1.1 and Figure 1.2 Demonstrates the distribution of articles related to E-Marketing studies published from 1993 to 2021 according to sample unit. From the table, it can be seen that majority of the studies were conducted on SMEs and less than half of the total published articles were focused on firms in all sizes as sample units. In this regard, 77 articles were focused on SMEs with a percentage of 40% of the total number of published articles and 56 articles conducted in other sample units which include large size firms with a percentage of 29% of the total number of articles. Subsequently, it is remarked that 25 articles were focused on consumers and internet users accounted for 13% of the total number of published articles.

**Table 1.1:** Distribution of articles Related to E-Marketing Studies published from 1993 to 2021 According to Sample Unit

| Sample Unit                              | Number of Studies | Percentage |
|--|-------------------|------------|
| Small Business Enterprises (SBEs)        | 5                 | 3%         |
| Small and Medium Size Enterprises (SMEs) | 77                | 40%        |
| Business to Business Enterprises         | 8                 | 4%         |
| Consumers and Internet Users             | 25                | 13%        |
| E-Intermediary                           | 20                | 11%        |
| Other Sample Units                       | 56                | 29%        |
| Total                                    | 191               | 100%       |



**Figure 1.2:** Distribution of articles Related to E-Marketing Studies published from 1993 to 2021 According to Sample Unit

#### **1.4 Literature on E-Marketing Adoption According to Nature of Study (Empirical and Non-Empirical)**

With regard to the extant review of literature conducted by the current study, 273 published articles on E-Marketing adoption between 1993 and 2021 were discovered. Of the amount, 72 percent of the total number of articles (f =196 articles) within the literature were empirical studies, 17 percent of the total number of articles (f =47 articles) within the literature were conceptual/theoretical studies, and eleven percent (f =30 articles) conducted literature review. The low percentage of non-empirical studies shows many factors examined were confirmed empirically. In the other word, the results show not only the enhancement trend of empirical studies in E-Marketing, but also demonstrates the existence of an adequate level of conceptualisation for the majority of the theoretical subjects related to electronic marketing. The outcomes show that a research on e-marketing adoption is becoming noticeable among scholars.

Moreover, to discover the interest of researchers to study E-Marketing, the distribution of articles studied E-Marketing from 1993 to 2021 was analysed. The results of this analysis (as illustrated in Table 1.2) show that:

- Most of the E-Marketing articles were published in between 2003-2009 with a percentage of 36% of the total number of articles.
- Generally, there is significant stability in E-Marketing research in the last 9 years.
- Regardless of the important role of E-Marketing in conducting marketing activities, there no increasing interest in studying E-Marketing by researchers by 2014 and a sudden increase from 2015 onward which can be related to the Covid-19 situation made academics more interested in the subject due to the sudden shift of people to online environment.

This reflects a decreasing interest from researchers to study E-Marketing.

**Table 1.2:** Articles on Electronic Marketing Published from 1993 to 2021

| Year      | Electronic Marketing |                |
|-----------|----------------------|----------------|
|           | Number of Articles   | % Of the Total |
| 1993-1997 | 11                   | 4%             |
| 1998-2002 | 18                   | 7%             |
| 2003-2009 | 98                   | 36%            |
| 2010-2014 | 52                   | 19%            |
| 2015-2021 | 94                   | 34%            |
| Total     | 273                  | 100%           |

## Appendix 2: Studies Conducted Based on the TOE Framework from 1990 to 2019

| No | Authors                             | Theories Adopted                           | IT Innovation   | Constructs and Variables   |
|----|-------------------------------------|--|---|--|
| 1  | Parveen (2012)                      | TOE  | Social Media  | <b>Technology:</b> Relative Advantage, Compatibility<br><b>Organisation:</b> Top Management Support, Entrepreneurial Orientation<br><b>Environment:</b> Institutional Pressures  |
| 2  | Al-Qirim (2006)                     | TOE  | E-Commerce  | <b>Technology:</b> Relative Advantage, Cost, Compatibility<br><b>Organisation:</b> Size, Information Intensity of Product, CEO's Innovativeness, CEO's Involvement<br><b>Environment:</b> Competition, Buyer/Supplier Pressure, Support From Technology Vendors  |
| 3  | Scupola (2009)                      | TOE  | E-commerce  | <b>Technology:</b> Relative Advantage, Barriers and Benefits, IT Related Technologies<br><b>Organisation:</b> CEO's Characteristics, Top Management Support, Employees' IS Knowledge and Attitude, Resource Constraints<br><b>Environment:</b> Role of Government, Technology Support Infrastructure   |
| 4  | Chong <i>et al.</i> (2009)          | Integrated TOE and DOI                     | E-Mail  | <b>Technology:</b> Complexity, Relative Advantage<br><b>Organisation:</b> Top Management Support<br><b>Environment:</b> Pressure   |
| 5  | Scott (2007)                        | TOE  | IT  | <b>Technology:</b> Observability, Trialability<br><b>Organisation:</b> IT Expertise, Size<br><b>Environment:</b> Competitive Pressure, Technology Support Infrastructure   |
| 6  | Kuan and Chau (2001)                | TOE  | EDI   | <b>Technology:</b> Perceived Direct Benefits, Perceived Indirect Benefits<br><b>Organisation:</b> Perceived Financial Cost, Perceived Technical Competence<br><b>Environment:</b> Perceived Industry Pressure, Perceived, Government Pressure  |
| 7  | Oliveira and Martins (2011)         | TOE, DOI, Institutional theory             | IT  | <b>Technology:</b> Perceived Benefits<br><b>Organisation:</b> Organisational Readiness, etc.<br><b>Environment:</b> External Pressure  |
| 8  | Oliveira and Martins (2010)         | TOE and Iacovou <i>et al.</i> (1995) Model | E-Business Adoption                                   | <b>Perceived Benefits:</b> Perceived Benefits and Obstacles of E Business<br><b>Technology and Organization Readiness:</b> Technology Readiness; Technology Integration; Firm Size.<br><b>Environment and External Pressure:</b> Competitive Pressure; Trading Partner Collaboration<br><b>Controls:</b> Country and Industry Effects          |
| 9  | Iacovou, Benbasat and Dexter (1995) | TOE  | EDI   | <b>Technology:</b> Perceived Benefits<br><b>Organisation:</b> Organisational Readiness<br><b>Environment:</b> External Pressure  |
| 10 | Ramdani, Kawalek and Lorenzo (2009) | TOE  | Enterprise Systems, (ERP), CRM, SCM and e-procurement | <b>Technology:</b> Relative Advantage, Compatibility, Complexity, Observability, Trialability<br><b>Organisation:</b> Top Management Support, Organisational Readiness, IS Experience, Size<br><b>Environment:</b> Industry, Market Scope, Competitive Pressure, External IS Support   |
| 11 | Thong (1999)                        | DOI to the TOE framework                   | E-commerce  | <b>Technology:</b> Relative Advantage, Compatibility, Complexity<br><b>Organisation:</b> Business Size Employee's IS Knowledge, Information Intensity, CEO's Innovativeness, CEO's IS Knowledge<br><b>Environment:</b> Competition   |
| 12 | Chau and Tam (1997)                 | TOE  | Open systems  | <b>Technology:</b> Perceived Benefits, Perceived Barriers, Perceived Importance of Compliance With Standards, Interoperability And Interconnectivity<br><b>Organisation:</b> Complexity of IT Infrastructure, Satisfaction With Existing Systems, Formalisation of System Development And Management<br><b>Environment:</b> Market Uncertainty |

|    |   |                                   |  |  |
|----|---|-----------------------------------|--|--|
| 13 | Ifinedo (2014)                          | DOI to the TOE framework          | E-Commerce   | <b>Technology:</b> Relative Advantage, Compatibility, Complexity<br><b>Organisation:</b> Management Support, Organisational Readiness<br><b>Environment:</b> External Pressures  |
| 14 | Premkumar and Roberts (1999)            | TOE                               | Four ICT Tools: online access, email, Internet and EDI | <b>Technology:</b> Relative Advantage, Cost, Complexity, Compatibility<br><b>Organisation:</b> Top Management Support, IT Expertise, Size of The Business<br><b>Environment:</b> Competitive Pressure, Vertical Linkages, External Support   |
| 15 | Alshamaila, Papagiannidis and Li (2013) | TOE                               | Cloud Computing  | <b>Technology:</b> Relative Advantage, Uncertainty, Compatibility, Complexity, Trialability<br><b>Organisation:</b> Size, Top Management Support, Innovativeness, Prior IT Experience<br><b>Environment:</b> Competitive Pressure, Industry, Market Scope, Supplier Efforts , External Computing Support |
| 16 | Wang <i>et al.</i> (2010)               | DOI to the TOE framework          | Internet Marketing                                     | <b>Technology:</b> Relative Advantage, Complexity, Compatibility<br><b>Organisation:</b> Top Management Support, Firm Size, Tech Competence<br><b>Environment:</b> Environment: Competitive Pressure, Trade Partner Pressure, Information Intensity  |
| 17 | Lin and Lin (2008)                      | TOE                               | E-Business   | <b>Technology:</b> IS Infrastructure, IS Expertise, Expected Benefits<br><b>Organisation:</b> Organisational Compatibility, Expected Benefits<br><b>Environment:</b> Competitive Pressure, Trading Partner Readiness   |
| 18 | Pan and Jang (2008)                     | TOE                               | Enterprise Resource Planning (ERP)                     | <b>Technology:</b> IT Infrastructure, Technology Readiness<br><b>Organisation:</b> Size, Perceived Barriers<br><b>Environment:</b> Production and Operations Improvement, Enhancement of Products and Services, Competitive Pressure, Regulatory Policy  |
| 19 | Yoon (2009)                             | TOE, DOI and Institutional Theory | Virtual Worlds   | <b>Technology:</b> Relative Advantage<br><b>Organisation:</b> Security Concerns, Organisational readiness<br><b>Environment:</b> Institutional pressures, etc.   |
| 20 | Li (2008)                               | TOE, DOI and Institutional Theory | E-Procurement  | <b>Technology:</b> Relative Advantage, Complexity, Financial Slack<br><b>Organisation:</b> Financial Slack<br><b>Environment:</b> External pressure, Government promotion,   |
| 21 | Rashid and Al-Qirim (2001)              | TOE and Institutional Theory      | E-Commerce   | <b>Technology:</b> Perceived benefits<br><b>Organisation:</b> Financial resources<br><b>Environment:</b> External pressure, Government, Promotion  |
| 22 | Nkhoma and Dang (2013)                  | TOE                               | Cloud Computing  | <b>Technology:</b> Relative Advantage<br><b>Organisation:</b> Security<br><b>Environment:</b> Government policy  |
| 23 | Hong and Zhu (2006)                     | TOE                               | E-Commerce   | <b>Technology:</b> Technology Integration, Web Functionalities, EDI Use<br><b>Organisation:</b> Web Spending, Perceived Obstacles<br><b>Environment:</b> Partner Usage   |
| 24 | Zhu <i>et al.</i> (2003,2004, 2006)     | TOE                               | E-Business   | <b>Technology:</b> Relative Advantage, Compatibility, Costs and Security Concerns<br><b>Organisation:</b> Technology Competence, Organisational Size<br><b>Environment:</b> Competitive Intensity, Partner Readiness   |
| 25 | Gibbs and Kraemer (2004)                | TOE + Institutional Theory        | Internet Marketing                                     | <b>Technology:</b> Technology Resources, Perceived Benefits<br><b>Organisation:</b> Lack of Organisational Compatibility, Financial Resources, Firm Size,<br><b>Environment:</b> External Pressure, Government Promotion, Legislative Barriers   |
| 26 | Lertwongs atien <i>et al</i> (2004)     | TOE                               | Internet Marketing                                     | <b>Technology:</b> Perceived Benefits, Perceived Compatibility   |

|    |  |                          |                       |   |
|----|--|--------------------------|-----------------------|---|
| 27 | Seyal <i>et al</i> (2004)                                  | TOE+ Hofstede's Theory   | E-Commerce            | <b>Technology:</b> Perceived Benefits, Task Variety<br><b>Organisation:</b> Organisational Culture, Management Support, Motivation to Use<br><b>Environment:</b> Government Support   |
| 28 | Xu <i>et al</i> (2004)                                     | TOE                      | E-Business            | <b>Technology:</b> Technology Competence<br><b>Organisation:</b> Firm Size, Global Scope, Enterprise Integration<br><b>Environment:</b> Competition Intensity, Regulatory Environment   |
| 29 | Shemi (2012)   | TOE + RBV                | E-Commerce            | <b>Technology:</b> Availability and Slow Speed of the Internet , Cost , Access to Payment Facilities<br><b>Organisation:</b> Skilled ICT Personnel, Organisational Culture , Security Concerns<br><b>Environment:</b> Lack of E-commerce Regulation, Customer and Supplier Preferences , The Role of the Local Business Environment   |
| 30 | Ohunmah (2015)   | TOE + DOI                | E-Payment             | <b>Technology:</b> ICT Development, National Physical Infrastructure Development Policy<br><b>Organisation:</b> Security and Safety,<br><b>Environment:</b> Legal, Law Enforcement, Financial Support Policy, Publicity/Public Awareness Policy<br><b>Individual:</b> Educational Level, IT Knowledge, Age, Gender  |
| 31 | Abou-Shouk <i>et al.</i> (2012)                            | TAM +DOI+TOE             | E-Commerce            | <b>Essential Benefits:</b> Sales, Revenue and Profits Growth, Support Effective Re-Intermediation<br><b>Marketing and Competition Benefits:</b> Customizing Services to Customer Needs, Improve Customer Satisfaction, Increase<br><b>Competitive Advantages Benefits:</b> Effective partnerships, Improve Accountability, Enhance, Staff Satisfaction, Easiness of Carrying Out Transactions |
| 32 | Wang <i>et al.</i> (2016)                                  | TOE                      | Mobile Marketing      | <b>Technology:</b> Relative Advantage, Complexity, Compatibility<br><b>Organisation:</b> Top Management Support Firm Size, Technological Competence<br><b>Environment:</b> Competitive Pressure, Critical Mass, Information Intensity   |
| 33 | Taylor (2015)  | DOI to the TOE framework | ICT Adoption          | <b>Technology:</b> Individual Leader Factors<br><b>Organisation:</b> Organizational Change, Organizational Culture, Financial Slack, Firm Size, Industry Type<br><b>Environment:</b> System Openness, Competitive Pressure, External Support  |
| 34 | Tripopsakul (2018)   | TAM + TOE                | Social Media Adoption | <b>Technology:</b> Relative Advantage , Complexity , Compatibility , Trialability , Observability<br><b>Organisation:</b> Academic support , Entrepreneur Innovativeness , IT Experience<br><b>Environment:</b> Competitive Pressure ,Customer Pressure, Social Pressure  |
| 35 | Awa and Ojiabo (2016); and Awa, Ukoha, and Emecheta (2016) | TOE                      | ERP                   | <b>Technology:</b> ICT infrastructures, Technical Know-how, Perceived Compatibility, Perceived Values, Security<br><b>Organisation:</b> Firm's size, Scope of Business Operations, Trading Partners' Readiness, Demographic Composition, Subjective Norms<br><b>Environment:</b> External Supports, and Competitive Pressures   |
| 36 | Lian, Yen, and Wang (2014)                                 | TOE                      | Cloud Computing       | <b>Technology:</b> Data Security, Complexity, Compatibility, Costs<br><b>Organisation:</b> Relative Advantage, Top Manager's Support, Adequate Resource, Benefits<br><b>Environment:</b> Government Policy, Perceived Industry Pressure   |

|    |                                   |                              |   |   |
|----|-----------------------------------|------------------------------|---|---|
| 37 | Chiu, Chen, and Chen (2017)       | TOE +DOI                     | Mobile Marketing  | <p><b>Technology:</b> Relative Advantage, Compatibility, Complexity, Trialability, Observability</p> <p><b>Organisation:</b> Information Intensity, Management Support, Employee's Knowledge, Absorptive Capability</p> <p><b>Environment:</b> Competitive Pressure, External supports, Business Partner, Government Support</p>  |
| 38 | Awa, Ojiabo, and Emecheta (2015)  | TAM + TOE + TPB              | E-Commerce  | <p><b>Technology:</b> Perceived Usefulness (PU) , Perceived Ease of Use (PEOU) ,Perceived Behavioural Control (PBC) , Perceived Service Quality (PSQ)</p> <p><b>Organisation:</b> Scope of Business Operations (SBOs) , Firm's Size (FS) , Organization Mission (OM) , Facilitating Conditions (FCs) , Individual Difference Factors (IDFs) , Social Influence or Subjective Norms</p> <p><b>Environment:</b> Consumer Readiness (CR) , Competitive Pressure (CP) ,Trading Partners' Readiness (TPR) , Perceived Trust (PT)</p> |
| 39 | Aljowaidi (2015)                  | TOE                          | E-Marketing   | <p><b>Technology:</b> Internal IT Infrastructure, Compatibility, Human Resources</p> <p><b>Organisation:</b> E-Strategies, Financial Resources, Organisational Structure and Management Style</p> <p><b>Environment:</b> Industry Adoption, Jurisdictional Issues, External Infrastructure, Social and Cultural Beliefs</p>   |
| 40 | Al-Somali <i>et al.</i> (2011)    | TOE +DOI                     | E-Business  | <p><b>Technology:</b> Technology Competence</p> <p><b>Organisation:</b> Firm Size, Top Management Support, Customer Orientation, Competitor Orientation, Technology Orientation</p> <p><b>Environment:</b> Customer Readiness, Trading Partner Readiness, Competitive Pressure, Regulatory Support</p>  |
| 41 | Sheikh, Shahzad, and Ishak (2017) | TOE +DOI                     | E-Marketing   | <p><b>Technology:</b> Technology Orientation</p> <p><b>Organisation:</b> Top Management Support</p> <p><b>Environment:</b> Pressure From Trading Partners</p>   |
| 42 | Rahayu and Day (2015)             | TOE                          | E-Commerce  | <p><b>Technology:</b> Perceived Benefits, Compatibility, Cost</p> <p><b>Organisation:</b> Technology Readiness, Firm Size</p> <p><b>Environment:</b> Customers/Suppliers Pressure, Competitor Pressure, Government Support, Technology Vendor Support</p> <p><b>Individual:</b></p>   |
| 43 | Rabie (2013)                      | TOE+ TAM + DOI + RBV         | E-Commerce  | <p><b>Technology:</b> Relative advantage</p> <p><b>Organisation:</b> Firm Activity, Firm Size, Firm's Assets/Capital , Firm Age ,Employee's IT knowledge</p> <p><b>Environment:</b> Government Support</p> <p><b>Managerial:</b> geographical distance; communication tools; e-commerce research; future strategies; relationship with other parties; and company tasks</p>   |
| 44 | Lin and He (2014)                 | TOE+ TAM                     | IT Adoption of the Pharmaceutical Distribution Enterprise | <p><b>Technology:</b> Relative Advantages, Compatibility, Complexity,</p> <p><b>Organisation:</b> Firm Characteristic, Leadership Support, Human Resources Investment, Information Technology Strategy, Relation Of Competition And Cooperation,</p> <p><b>Environment:</b> Government Support</p>  |
| 45 | Alrousan (2014)                   | TOI + IDT + Hofstede's Model | E-Commerce  | <p><b>Technology:</b> Relative advantage, Observability</p> <p><b>Organisation:</b> Uncertain Avoidance</p> <p><b>Environment:</b> Government Support, Supplier/Partner Pressure</p> <p><b>Individual:</b> Top Management Support, Power Distance , Uncertainty Avoidance, Manager's Attitude toward E-commerce Applications</p>  |
| 46 | Raymond (2001)                    | TOE+DOI                      | E-Commerce  | <p><b>Marketing Strategy:</b> Price, Distribution, Customer Relations</p> <p><b>Managerial Context:</b> Owner/Manager's Experience, Educational Level</p> <p><b>Organisational Context:</b> Type of Ownership, Nature of Business</p> <p><b>Characteristics of E-Commerce:</b> Perceived Advantages, Technology Attributes</p> <p><b>Environment:</b> Partner Influence, Environmental Uncertainty</p>  |

|    |                                  |                        |               |  |
|----|----------------------------------|------------------------|---------------|--|
| 47 | Hung <i>et al.</i> (2011)        | DOI+TOE                | E-Commerce    | <p><b>Innovation attributes:</b> Compatibility, Relative Advantages, Relative Risk</p> <p><b>Organisation:</b> Centralization, Formalization, Percept of Superiority, Organisation Scale Industry</p> <p><b>Environment:</b> Government Policy, Legal Regulation, Competition Intensity, Market Scale, Popularity of Internet User, Customers Pressure, Supplier Pressure, Security, Website Transmission Correctness, Website Transmission Speed</p>                              |
| 48 | Grandon and Pearson (2004)       | TAM+TOE+               | E-Commerce    | <p><b>Technology:</b> Perceived Ease of Use, Perceived Usefulness,</p> <p><b>Organisation:</b> Organisational Readiness, Organisational Support, Managerial Productivity, Strategic Value</p> <p><b>Environment:</b> External Pressure</p>   |
| 49 | Huy <i>et al.</i> (2012)         | TOE+DOI                | E-Commerce    | <p><b>Technology:</b> Compatibility, Complexity, Relative Advantages, Risk</p> <p><b>Organisation:</b> Employee's E-commerce, Knowledge, Organisational, Readiness, Firm's Strategic, Orientation, Firm Size, Firm's, Characteristics of Managers, Managerial Attitudes towards Innovation, Manager's Relative IT Knowledge</p> <p><b>Environment:</b> Competitive Pressure, Industry Associations' Support, Governmental Policy, IT Infrastructure, Buyers/Suppliers Pressure</p> |
| 50 | Heung (2003)                     | TOE+ Hofstede's Theory | E-Commerce    | <p><b>Technology:</b> Technical Issues</p> <p><b>Organisation:</b> Knowledge of E-commerce, Management Support,</p> <p><b>Environment:</b> Partner's Participations</p>  |
| 51 | Hao <i>et al.</i> (2010)         | TOE                    | EDI           | <p><b>Technology:</b> Compatibility, Complexity</p> <p><b>Organisation:</b> IS Input, Intended IS Budget, Top Management, Strategy, Management, Firm Size, Web Functionality, Security</p> <p><b>Environment:</b> Competitive Pressure</p>   |
| 52 | Alamro and Tarawneh (2011)       | TOE                    | E-Commerce    | <p><b>Technology:</b> Ecommerce Benefits, E-Commerce Barriers, Increase Innovations and New Technologies, Rapid Decline in Technology Cost</p> <p><b>Organisation:</b> Financial Resources, Top Management, Support, Rapid Political Change, Changing Nature of Workforce</p> <p><b>Environment:</b> Strong Competition, Increased Power of Consumer, Significant, Change in Markets, Global Economy, Regional Trade Agreements</p>  |
| 53 | Ghobakhl oo <i>et al.</i> (2011) | TOE                    | E-Commerce    | <p><b>Technology:</b> Perceived Relative Advantages, Perceived Compatibility, Cost</p> <p><b>Organisation:</b> Information Intensity, CEO's Knowledge, CEO's Innovativeness, Business Size</p> <p><b>Environment:</b> Competition, Buyer/Supplier Pressure, Support from Technology Vendors</p>  |
| 54 | Almoawi And Mahmood (2011)       | TOE                    | E-Commerce    | <p><b>Technology:</b> Relative Advantages, Compatibility, Complexity</p> <p><b>Organisation:</b> Firm Size, Manager's Attitude, Manager's Innovativeness, Owner's Knowledge</p> <p><b>Environment:</b> Information Intensity, Competition Intensity</p>  |
| 55 | Teo <i>et al.</i> (2009)         | TOE                    | E-Procurement | <p><b>Technology:</b> Perceived Direct Benefits, Perceived Indirect Benefits, Perceived Costs</p> <p><b>Organisation:</b> Firm Size, Top Management Support, Information Sharing Culture</p> <p><b>Environment:</b> Business Partner Influence</p>   |
| 56 | Pan and Jang (2008)              | TOE                    | ERP           | <p><b>Technology:</b> IT infrastructure, Technology Readiness</p> <p><b>Organisation:</b> Size; Perceived Barriers</p> <p><b>Environment:</b> Production and Operations Improvement, Enhancement of Products and Services, Competitive Pressure, Regulatory Policy</p>   |

|    |   |                               |                                      |   |
|----|---|-------------------------------|--------------------------------------|---|
| 57 | Ramdani And Kawalek (2009)                | TOE +DOI                      | Enterprise Systems                   | <p><b>Technology:</b> Relative Advantages, Compatibility, Complexity, Trialability, Observability</p> <p><b>Organisation:</b> Top Management Support, Organisational Readiness, IS Experience, Firm Size</p> <p><b>Environment:</b> Industry Market Scope, Competitive Pressure , External IS Support</p>   |
| 58 | Kurnia <i>et al.</i> (2009)               | TOE                           | E-Commerce Technologies              | <p><b>Technology:</b> Perceived Benefits</p> <p><b>Organisation:</b> Organisation readiness, Organisation Resources and Governance</p> <p><b>Environment:</b> Environmental Pressure, National Readiness, Perceived Supporting Services, Industrial Readiness, Industry Structure Standards</p>   |
| 59 | Premkumar and Roberts (1999)              | TOE                           | Email/EDI                            | <p><b>Technology:</b> Relative Advantage, Complexity</p> <p><b>Organisation:</b> Organisational Size</p> <p><b>Environment:</b> External Competitive Pressure</p>   |
| 60 | Martins and Oliveira (2009)               | TOE                           | Internet Web Site E-Commerce         | <p><b>Technology:</b> Technology Readiness, Technology Integration, Security Applications</p> <p><b>Organisation:</b> Perceived Benefits of Electronic Correspondence, IT Training Programmes, Access to The IT System of the Firm; Internet and Email Norms.</p> <p><b>Environment:</b> Internet Competitive Pressure, Web Site Competitive Pressure,, E-Commerce Competitive Pressure</p> |
| 61 | Liu (2008)                                | TOE                           | E-Commerce Development Level         | <p><b>Technology:</b> Support from Technology; Human Capital; Potential Support from Technology</p> <p><b>Organisation:</b> Management Level for Information; Firm Size</p> <p><b>Environment:</b> User Satisfaction; Ecommerce Security, Controls Firm Property</p>  |
| 62 | SoaresAguiar and PalmaDos-Reis (2008)     | TOE And Institution Al Theory | Electronic Procurement Systems (EPS) | <p><b>Technology:</b> Technology Competence, IT Expertise; B2B Know How</p> <p><b>Organisation:</b> Firm Size, Firm Scope</p> <p><b>Environment:</b> Trading Partner Readiness, Extent of Adoption Amongst Competitors, Perceived Success of Competitor Adopters</p>  |
| 63 | Chen and Chang (2014)                     | TOE + PERM                    | IT                                   | <p><b>Technology:</b> Technological Resources,</p> <p><b>Organisation:</b> Business Resources , Top Management Support</p> <p><b>Environment:</b> Environmental Compliance Drivers, Economic Drivers, Governance Support</p>  |
| 64 | Idris, Edwards, And McDonald (2017)       | TOE + PERM                    | E-Commerce                           | <p><b>Technology:</b> Technological Resources, Complexity,</p> <p><b>Organisation:</b> Human Resource, Awareness, Commitment, Size</p> <p><b>Environment:</b> Governance, Business Resources, Government Readiness, Market Forces Readiness, Supporting Industry Readiness</p>  |
| 65 | Lertwongsatien and Wongpinunwatana (2003) | TOE                           | E-Commerce                           | <p><b>Technology:</b> Perceived Benefits, Perceived Compatibility,</p> <p><b>Organisation:</b> Size, Top Management Support, Existence of IT Department</p> <p><b>Environment:</b> Industry Competitiveness</p>   |
| 66 | Bellaaj <i>et al.</i> (2008)              | TOE                           | Web Site                             | <p><b>Technology:</b> Perceived advantage , Perceived compatibility, Perceived complexity</p> <p><b>Organisation:</b> Management support , Client-oriented strategy</p> <p><b>Environment:</b> Clients , Competitors, Business partners</p>   |
| 67 | Doolin and Al Haj Ali (2008)              | TOE                           | Mobile Commerce                      | <p><b>Technology:</b> Relative Advantage</p> <p><b>Organisation:</b> Information Intensity</p> <p><b>Environment:</b> External Competitive Pressure</p>   |
| 68 | Awa, Ojiabo, and Orokor (2017)            | TOE + TAM + TPB               | Technology Adoption                  | <p><b>Technology:</b> Perceived Benefits, Cost</p> <p><b>Organisation:</b> Organisational Readiness</p> <p><b>Environment:</b> Customer Pressure</p> <p><b>Individual:</b> Subjective Norms, Hedonistic Drivers</p>   |
| 69 | Bhattacharya and Wamba (2018)             | TOE                           | RFID Adoption                        | <p><b>Technology:</b> Relative Advantage</p> <p><b>Organisation:</b> Value Chain Complexity</p> <p><b>Environment:</b> Competitive Pressure, Catalyst Agent</p>   |

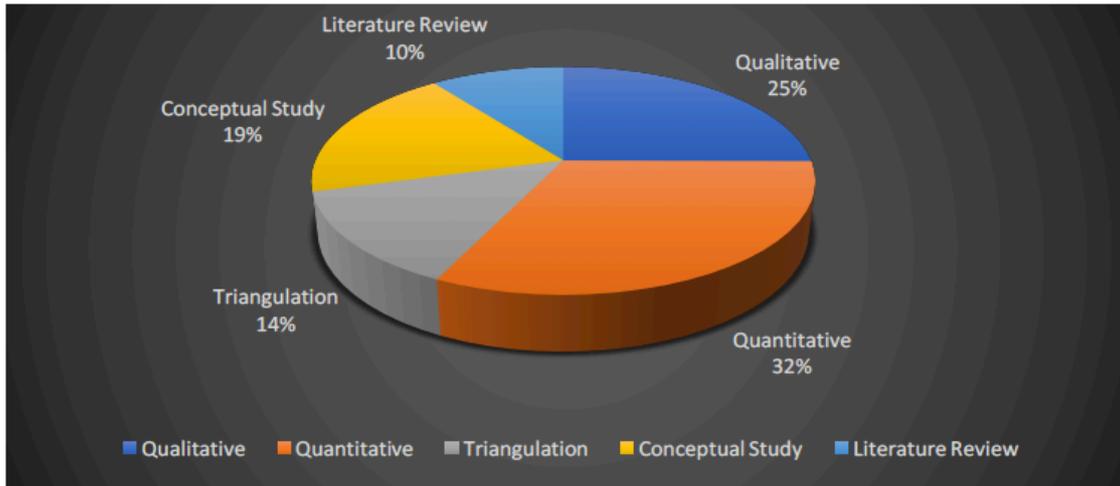
|    |                                |   |                  |  |
|----|--------------------------------|---|------------------|--|
| 70 | Saint and Gutierrez (2017)     | TOE   | Cloud Computing  | <b>Technology:</b> Relative Advantage, Complexity, Perceived Financial Cost<br><b>Organisation:</b> Organisational Top Management Support Technology Competence, Institution Size<br><b>Environment:</b> Vendor Support, Environmental Competitive Pressure  |
| 71 | Qashou and Saleh (2018)        | TOE + DOI                                     | E-Marketing      | <b>Technology:</b> Relative Advantage<br><b>Organisation:</b> Market Scope<br><b>Environment:</b> Customer Pressure  |
| 72 | Tarofder <i>et al.</i> (2019)  | TOE   | Web 2.0 Adoption | <b>Technology:</b> Relative Advantage<br><b>Organisation:</b> Top Management Support<br><b>Environment:</b> Competitive Pressure   |
| 73 | Ikumoro and Jawad (2019)       | TOE + TAM + UTAUT                             | E-Commerce       | <b>Technology:</b> Perceived Relative Advantage, Perceived Technology Security<br><b>Organisation:</b> Employees Technology Know-How, Performance Expectancy, Chief Executive Officer (CEO) And Manager Characteristics, Perceived Adoption Cost, Facilitating Condition<br><b>Environment:</b> Social Influence, Hedonistic Drives, And Normative and Mimetic Pressures |
| 74 | Hassen, Rahim, and Shah (2019) | TOE + TAM + PERM + E-Commerce Success Factors | E-Commerce       | Not Stated in the Article  |

Source: Developed by the Researcher

### Appendix 3: Methodologies and Methods Used in Contemporary E-Marketing Research

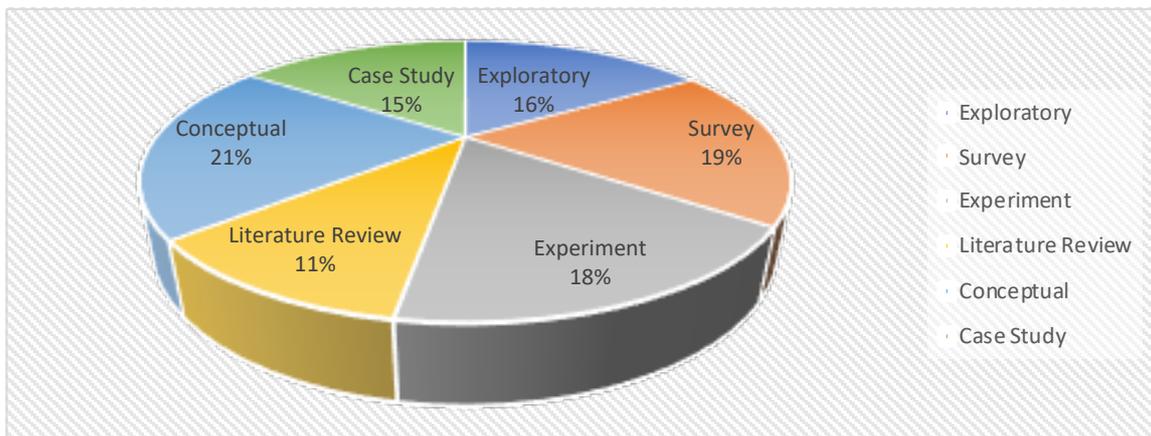
The research identified an extensive range of the literature review in its wider broad sense and after examination, and despite the fast increase in E-Marketing research in the last three decades; it appears that only from the early 1990s, study on E-Marketing began to appear in the literature. These research studies investigated and covered a broad range of E-Marketing areas. To examine the different methodologies and methods used in contemporary E-Marketing research, the literature related to the fields of E-Marketing and distribution firms has been investigated from a methodological context in the period from 1993 to 2021. The literature time started from 1993 because the World Wide Web (WWW), which is the main E-Marketing element, started in 1993. The following online databases were searched to provide a comprehensive bibliography of the E-Marketing methodological literature: as Science Direct (Elsevier), ProQuest, Summon (Birmingham City University catalogue), Emerald, ABI, EBSCO Electronic Databases.

The review of the literature yielded 273 studies. Although it was planned initially (because of the limited resources regarding time and effort) to construct a representative un-probability sample from the literature in order to come up with an precise and fair representation of the methodological literature characteristics, and to investigate the methodologies and methods used in contemporary E-Marketing research, it was decided to take all the studies resulting from the literature into consideration due to the relatively limited number of studies produced. By reviewing these literatures, it was found that the majority of studies within the literature were quantitative methodology with a percentage of 32 % of the total number of studies. It was also found that the majority of empirical studies depended on qualitative methodology with a percentage of 25% of the total number of studies followed by a 19% of the total number of studies depending on conceptual studies and 10% of the research methodologies were based on literature review. On the other hand, triangulation methodology was applied in 14% of the total number of studies. These findings are illustrated in the following figure.



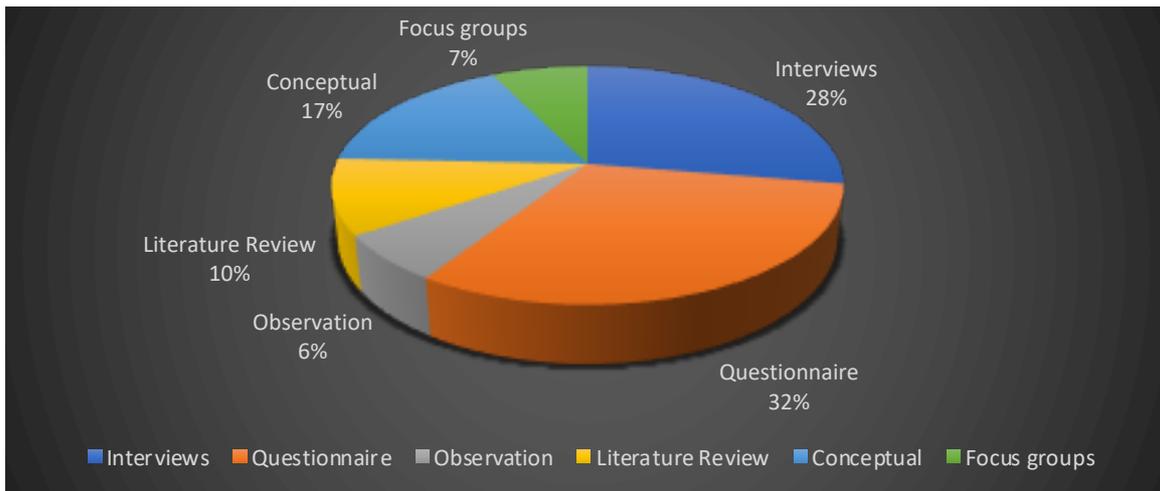
**Figure 3.1:** Research Methodologies Implemented in E-Marketing Literature

With regard to the research strategies adopted by the researchers within the field, it was found that the majority of studies depended on conceptual strategy with a percentage of 21% of the total number of studies and as illustrated in figure 3.2; 19% of the researchers applied survey strategy, 18% applied experiment strategy, and 11% applied systematic literature review strategy.



**Figure 3.2:** Research Strategies Implemented in E-Marketing Literature

On the other hand, with regard to the research methods implemented by researchers from 1993 to 2021 in the field of E-Marketing, it was found that the majority of researchers depended on questionnaires with a percentage of 32% of the total number of studies and as illustrated in figure 3.3; 28 % applied interviews, 7 % applied focus groups and 6% applied observation.



**Figure 3.3:** Research Methods Implemented in E-Marketing Literature

Based on the previous discussion and the review of the methodological literature for the research methodologies, research strategies and research methods employed by researchers in the fields of E-Marketing and distribution firms from 1993 to 2021, this research can argue that there is a need to conduct more quantitative studies to increase the degree of generaliseability of the findings of such studies. Moreover, this research suggests that when conducting such studies, a triangulation methodology can be used depending on survey and case study research strategies by employing questionnaires and interviews as research methods. In attempting to determine the most appropriate research methodology for this research, the extant literature on ICT adoption has been widely reviewed. To this point, not numerous studies have been found that investigated E-Marketing adoption using triangulation methodology. Majority of studies that have found as using qualitative or quantitative research method.

Appendix 4: Study Measures (Chapter 5)

| Table 5.7: Study Measures    |  |  |   |  |
|------------------------------|--|--|---|--|
| N                            | Constructs   |  | Items   | Sources  |
| <b>Independent Variables</b> |  |  |   |  |
| 1                            | Determinant of E-Marketing Adoption (Adoption Stimuli, Factors enabling E-Marketing adoption). | <b>Environmental Related Factors (External)</b>  | <b>1. Business partner affiliation</b><br>6 items; responses of business partner affiliation are coded using a five-point Likert scale ranging from 1= completely disagree to 5=completely agree. <ul style="list-style-type: none"> <li>We believe that due to the nature of the value chain wide-ranging acts are necessary to achieve our business objectives.</li> <li>We believe that due to the nature of the supply chain wide-ranging acts are necessary to achieve our business objectives.</li> <li>Our organisation regularly solve problems jointly with its suppliers.</li> <li>Our organisation has continuous quality improvement program.</li> <li>Firms in our supply chain create a compatible communication and information system.</li> <li>Our firm participates in the marketing efforts of its customers.</li> </ul> | Adapted from sources including semi-structured interview and literature review (e.g. Parker and Castleman, 2009; Castleman, 2004; Wilson et al., 2008; Shemi, 2012; Moodley and Morris, 2004). |
|                              |  |  | <b>2. Intensity of National E-Readiness</b><br>4 Items; 1=completely disagree...5= completely agree. <ul style="list-style-type: none"> <li>Iran have a cultural resistance toward new ideas such as the Internet.</li> <li>The organisations' working culture in Iran support the Research and Development (R&amp;D).</li> <li>Firms and businesses are adaptable with the developments in the ICT technologies.</li> <li>There is a shortage of government legislation to regulate the use of the Internet.</li> </ul>  | Adapted from (Al-Somali <i>et al.</i> , 2011; Alrouzan, 2014 the result of semi-structured interview.  |
|                              |  |  | <b>3. External IT Support (Technology Consultants' Involvement)</b><br>5 Items; 1=completely disagree...5= completely agree. <ul style="list-style-type: none"> <li>IT consultants are helpful for our firm in reducing time consuming and tiring business processes.</li> <li>Organisation would require IT assistance for technical issues and system failures within company's IT infrastructure.</li> <li>Technology consultants are beneficial for Customising internet-based software.</li> <li>Technology consultants are helpful in installing software packages which ease our business operations.</li> <li>Technology consultants are useful for monthly upgrades.</li> </ul>  | (Al-Somali, 2011; Robey <i>et al.</i> , 2000; Weigelt and Sarkar, 2009; Swanson, 2010), and the result of Semi-structured interview.   |
|                              |  | <b>Individual Related Factors (Internal)</b><br><b>1. Normative Social Influences</b><br>Items; 1=completely disagree...5= completely agree. <ul style="list-style-type: none"> <li>How I use technology influences my customers.</li> <li>People who are important to my firm (customers, suppliers, information system people, industry peers) think that we should use the E-Marketing.</li> <li>There has been a dramatic change in the last 5 years in my business due to IT.</li> <li>There will be a dramatic change over the next 5 years in my business due to IT.</li> <li>E-Marketing Adoption of competitors, influence the firm's decision in adoption.</li> <li>How I use technology influences my competitors.</li> <li>How I use technology influences my suppliers.</li> <li>I use online services if my suppliers also used them.</li> </ul> | Adapted from (Zhu and Chen, 2016; Hu, Chen, and Davison ,2019; Li , Xu, and Ngai, 2018) and the result of semi-structured interview.  |  |

|  |  |   |   |
|--|--|---|---|
|  |  | <ul style="list-style-type: none"> <li>• I use online services if my customers also used them.</li> <li>• People around me who use the E-Marketing system have more prestige.</li> </ul>  |   |
|  |  | <p><b>2. Owner/Manager Support (Involvement)</b><br/>6 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Top managements in the organisation are helpful in solving problems related to IT system.</li> <li>• Management is really keen to see that we are happy using new technology systems.</li> <li>• There is sufficient support for E-Marketing from top management.</li> <li>• The owner or manager enthusiastically supports the use of a web site for marketing aims.</li> <li>• I am convinced that management is sure as to what benefits can be achieved with the use of E-Marketing.</li> <li>• Management has provided most of the necessary help and resources to get us used to the systems quickly.</li> </ul>  | Adapted from (Looi, 2005; Stockdale and Standing, 2006; Bharati and Chaudhury, 2006; Alamro and Tarawneh, 2011; Alamro and Tarawneh, 2011; Al-Weshah and Al-Zubi; 2012; Hao <i>et al.</i> , 2010), and the result of semi structured interview. |
|  |  | <p><b>3. Perceived Ease of Use</b><br/>10 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• We could adopt E-Marketing with very little effort.</li> <li>• Staff would need to undertake training.</li> <li>• I would require training to be able to use such a system.</li> <li>• Learning to operate E-Marketing would be easy for me.</li> <li>• Learning to interact with the website would be easy for me.</li> <li>• Interacting with this retailer's Website does not require a lot of mental effort.</li> <li>• I find E-Marketing to be flexible to interact with.</li> <li>• I find E-Marketing easy to use.</li> <li>• It be easy for me to become skilful at using E-Marketing.</li> <li>• My interaction with E-Marketing would be clear and understandable.</li> </ul>   | Adapted from (Lin and Wu, 2004; Straub <i>et al.</i> ,1997; Luo and Remus, 2006; McKechnie <i>et al.</i> , 2001; Pavlou, 2003; Grandon and Pearson, 2004) and the result of in depth interview.   |
|  |  | <p><b>4. Job fit with PC use</b><br/>11 Items 1=completely disagree...5= completely agree</p> <ul style="list-style-type: none"> <li>• The implementation of E-Marketing meet our business aims.</li> <li>• Every function at my company is supported by Information Technology.</li> <li>• My job's responsibility fit with PC use.</li> <li>• Using E-Marketing would fit into my workstyle.</li> <li>• Using the marketing shorten the duration of time needed to accomplish important job responsibilities.</li> <li>• E-Marketing is suited to our customers and suppliers.</li> <li>• E-Marketing is suited to way business is conducted.</li> <li>• Our business is compatible with all aspects of E-Marketing.</li> <li>• The internet is compatible with all aspects of the work of the organisation.</li> <li>• Technological changes provide big opportunities in our industry.</li> <li>• Using the marketing shorten the duration of time needed to accomplish important job responsibilities</li> </ul> | Adapted from (Thompson <i>et al.</i> ,1991; Igbaria, 1995) and the result of semi-structured interview.   |

|  |  |   |  |   |
|--|--|---|--|---|
|  |  |   | <p><b>5. Long-term Consequences of PC use</b><br/>6 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Adoption of E-Marketing in long-term reducing the cost of our business operations.</li> <li>• Adoption of E-Marketing in long-term Increase sales.</li> <li>• Adoption of E-Marketing in long-term Support cooperative partnership in the industry.</li> <li>• It is very difficult to forecast where technology in our industry will be in the next 2 to 3 years.</li> <li>• E-Marketing adoption provides big opportunities in our organisation.</li> <li>• A large number of new service ideas have been possible though technological breakthrough in our industry.</li> </ul>  | <p>Adapted from (Thompson <i>et al.</i>,1991; Al-Qeisi and Abdallah, 2013; Zhou <i>et al.</i>, 2010), and the result of semi-structured interview.</p>  |
|  |  | <p><b>Organisational Related Factors (Internal)</b></p> | <p>Please tick the option that best describes your view on the following statements of organisational factors that influence your firm's E-Marketing adoption.</p> <p><b>1. Organisation's Culture</b><br/>5 Items; 1=completely disagree...5= completely agree</p> <ul style="list-style-type: none"> <li>• Our organisation perceives that E-Marketing is adaptable with the company's culture.</li> <li>• I think E-Marketing is compatible with my aspects and cultural value.</li> <li>• The sense around here is that employee learning is an investment, not an expense.</li> <li>• Managers basically agree that our organisation's ability to learn is the key to our competitive advantage.</li> <li>• The basic values of this organisation include learning as key to improvement.</li> </ul>  | <p>Adapted from (Montazemi, 2006; Thatcher <i>et al.</i>, 2006; Tan <i>et al.</i>, 2007; Botho-Vision, 2016) and the result of semi structured interview.</p>   |
|  |  |   | <p><b>2. Organisation's E-Readiness</b><br/>11 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Our firm is highly computerised with internal and external network connections which connect the company to its other branches.</li> <li>• We have high and speed connectivity to the Internet.</li> <li>• The majority of organisation's employees have basic ICT literacy.</li> <li>• We have sufficient skilled human resources to implement E-Marketing.</li> <li>• Our company has individual(s) who be able to plan and carry out several parts of the assessment process of E-Marketing implementation.</li> <li>• Working environment encourages ICT employees to develop their abilities and ICT skills exist in organization.</li> <li>• Most of our staffs have unrestricted admission to PCs.</li> <li>• A central support (e.g. Information centre, help desk) is Available to help out with problems.</li> <li>• Most of our employees are knowledgeable in ICT.</li> <li>• We are constantly updated on new software that can help us to use computers more effectively.</li> <li>• Our organisation has the financial resources to adopt E-Marketing.</li> </ul> | <p>(Scupola, 2003; Ramdani and Kawalek, 2009; Grandon and Pearson, 2004; Hussin and Noor, 2005; Sparling <i>et al.</i> 2007; Kurnia <i>et al.</i>, 2009; Huy <i>et al.</i>, 2012), and the result of Semi-structured interview.</p> |

|  |  |  |  |  |
|--|--|--|--|--|
|  |  |  | <p><b>3. Receptivity toward change (Attitude toward change)</b><br/>5 Items; 1= completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Our firm respond well to industry competitors and any other changes in the business environment.</li> <li>• In our firm, staff easily accept any changes in the organizational roles.</li> <li>• In my company, employees easily accept any changes in the software applications that they use.</li> <li>• Our company is capable to adapt itself with the fast changes of technology.</li> <li>• We have a strong tendency to be ahead of others in adopting new technology.</li> </ul>   | <p>Adapted from (Almoawi, 2011; Hussein, 2009; Mpofu <i>et al.</i>, 2009; Seyal and Rahman, 2003; To and Ngai, 2007; Teo <i>et al.</i>, 2009; Ramsey and McCole, 2005; Huy <i>et al.</i>, 2012; Thong, 1999; Rashid and Al Qirim,2001), And the result of semi structured interview.</p> |
|  |  |  | <p><b>4. Marketing Capabilities of Organisation</b><br/>4 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Internet and its applications is used extensively for marketing in my organisation.</li> <li>• We make a good job of evolving new trading services over E-Marketing.</li> <li>• New technology adoption enables us to distribute our organization' products online as well as offline.</li> <li>• P.R. activities such as advertising over the Internet give the company more market share opportunity.</li> </ul>  | <p>Adapted from (Hussein 2009; Abou-Shouk <i>et al.</i>, 2012), and the result of semi structured interview.</p>   |
|  |  |  | <p><b>5. Degree of Decentralisation</b><br/>5 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• In this company, only key strategic decisions need to be confirmed by Managers/owner.</li> <li>• Small issues can be resolved with by employees in operational level.</li> <li>• In the company if any of the Employees want to make their own decision would be encouraged here.</li> <li>• Any situation happens, we have processes to follow to deal with the Situation.</li> <li>• Each employee has a particular task to do.</li> </ul>  | <p>Adapted from (Hung <i>et al.</i>, 2011; Alrousan, 2014), and the result of semi-structured interview.</p>   |
|  |  |  | <p><b>6. The Degree of Formalisation</b><br/>5 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Our organisation has very tough rules of adopting and investing in new technologies</li> <li>• Our organisation has developed regulation to support the E-Marketing technology within the firm.</li> <li>• Our company has rules and procedures related to new technology systems and most of the time they are well defined in written form.</li> <li>• Our organisation is enacting regulations that protect the right of privacy and safety of personal information.</li> <li>• Regulations are the main hurdle for E-Marketing in our company (electronic transaction act, consumer protection law etc.).</li> </ul> | <p>Adapted from (Hung <i>et al.</i>, 2011; Alrousan, 2014), and the result of in-depth interview.</p>  |
|  |  |  | <p><b>7. Employees' IT Knowledge (Level of New Technology Knowledge)</b><br/>6 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Our firm's employees have sufficient knowledge with information technology.</li> <li>• Most of Our firm's employees are experienced with IT tools</li> <li>• Our staff have the skill to use E-Marketing tools.</li> </ul>   | <p>Adapted from (Musa and Mbarika, 2005; Alrousan,2014; Hussein, 2009; Huy <i>et al.</i>, 2012) and</p>  |

|  |  |   |  |  |
|--|--|---|--|--|
|  |  |   | <ul style="list-style-type: none"> <li>• Our company has skilled technical support staff.</li> <li>• Our company has capable technical support staff.</li> <li>• Our company employees are experienced with information technology.</li> </ul>   | the result of semi-structured interview.   |
|  |  |   | <p><b>8. Management IT Knowledge</b><br/>4 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Manager, have IT knowledge for implementation of E-Marketing.</li> <li>• Management have the skill to use E-Marketing tools.</li> <li>• Top management is aware of the of the website and technology functions toward marketing.</li> <li>• Management always have new, innovative IT ideas.</li> </ul>  | Adapted from (e.g. Karakaya and Shea, 2008; Scupola, 2010; Ghobakhloo <i>et al.</i> , 2011, Almoawi, 2011; Huy <i>et al.</i> , 2012), and the result of semi-structured interview. |
|  |  | <b>Technological Related Factors (External)</b> | <p><b>1. Sufficient Accessibility to Internet Resources (Availability and characteristic of the technology)</b><br/>8 Items; 1=completely disagree...5= completely agree.</p> <ol style="list-style-type: none"> <li>7. Stability in IT infrastructure widen our choice of how to reach clients or other business associates.</li> <li>8. Internet access and other IT facilities are at affordable prices to our firm.</li> <li>9. There are challenges with the bandwidth strength/speed of the internet here in Iran.</li> <li>10. The system is always suffering from shutdown problem.</li> <li>11. Online customer services are available at all times.</li> <li>12. Inadequate speed and quality of telecommunication infrastructure negatively affect our business.</li> <li>13. The system provides continuous access to other resources.</li> <li>14. The slow speed constrained us in using internet to the optimum in our operations.</li> </ol> | Adapted from (Shemi, 2012; (Oreku <i>et al.</i> , 2009; Mutula and Van Brakel, 2007); and the result from semi structured interview.   |
|  |  |   | <p><b>2. Intensity of cost effects</b><br/>4 Items; 1=completely disagree...5= completely agree.</p> <ol style="list-style-type: none"> <li>15. The implementation of E-Marketing cover negative issues (e.g. High costs, time, taking traditional methods, etc.)</li> <li>16. The owner or manager has allocated adequate resources to development of a web site.</li> <li>17. The high costs of maintaining a web site (upgrading, installing new software, and updating information) influence our decision for adoption of E-Marketing.</li> <li>18. The initial cost of developing a web site is high for our company.</li> </ol>   | Adapted from (Mutula and Van Brakel, 2007; Lee <i>et al.</i> , 2003; Sarosa and Zowghi, 2003); and the result of semi structured interview.  |
|  |  |   | <p><b>3. Perceived Benefits</b><br/>6 Items; 1=completely disagree...5= completely agree.</p> <ol style="list-style-type: none"> <li>19. Using E-Marketing enables the company to conduct online transactions anytime.</li> <li>20. Using Chart-Master in my job would enable me to accomplish tasks more quickly.</li> <li>21. I believe that using E-Marketing enables me to manage the internal interactions more effectively.</li> <li>22. I would find E-Marketing useful in my job.</li> <li>23. Top management is aware of the benefits of E-Marketing use for the company.</li> <li>24. I believe that using E-Marketing enables me to manage the external interactions more effectively.</li> </ol>   | Adapted from (Chibelushi and Costello, 2009; Looi, 2005); the result of semi-structured interview.   |
|  |  |   | <p><b>4. The Intensity of Perceived Compatibility</b><br/>4 Items; 1=completely disagree...5= completely agree.</p> <ol style="list-style-type: none"> <li>25. Our organisation perceives that E-Marketing is consistent with The Company's values.</li> </ol>   | Adapted from (Hung <i>et al.</i> , 2011; Huy <i>et al.</i> , 2012; Ghobakhloo <i>et al.</i> , 2011; Hung <i>et al.</i> , 2011; Tan <i>et al.</i> , 2008;                           |

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|  |   |                                   | <p>26. My company exchange more information now with internet customers than we did before the internet was used.</p> <p>27. The internet is consistent with the values, believes and business needs of my company.</p> <p>28. E-Marketing would be consistent with our existing technology Infrastructure.</p>  | Ramdani And Kawalek, 2009) and the result of semi-structured interview.  |
|  |   |                                   | <p><b>5. The Relative Advantage</b><br/>10 Items; 1=completely disagree...5= completely agree.</p> <p>29. Using E-Marketing would enable my company to accomplish specific tasks more quickly.</p> <p>30. Using E-Marketing in my job would increase my productivity.</p> <p>31. Using the internet improves the quality of the marketing activities</p> <p>32. The internet supports critical aspects of my job.</p> <p>33. Using the internet gives me greater control over my work.</p> <p>34. Using the internet allows me to accomplish more marketing work than would otherwise be possible.</p> <p>35. Using E-Marketing would improve my job performance.</p> <p>36. I find E-Marketing useful in my job.</p> <p>37. Using E-Marketing would make it easier to do my job.</p> <p>38. Using E-Marketing would enhance my effectiveness on the job.</p>  | Adapted from (Scupola, 2009; Ghobakhloo <i>et al.</i> , 2011; Tan <i>et al.</i> 2008; Ramdani and Kawalek, 2009; Huy <i>et al.</i> , 2012), the result of semi-structured interview.   |
| <b>Dependent/Intervening Variables</b> |   |                                   |  |  |
| 2                                      | E-Marketing Adoption of your Firm-Acceptance of the E-Marketing Adoption, E-Marketing Involvement Decision. |                                   | <p><b>1. E-Marketing Adoption</b><br/>This part concerns your ability, reactions and willingness to undertake expansion of the marketing strategies of the firm through adoption of E-Marketing. Please circle the most appropriate number that explains the best about your firm's E-Marketing adoption.<br/>7 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• E-Marketing make our job operations easier.</li> <li>• E-Marketing facilitates exchange of productive ideas among the staff (e.g. aid inter-company communication, more idea exchange and business transactions).</li> <li>• It facilitates seamless operational efficiency free of technical disruption and delays.</li> <li>• E-Marketing allows us for increasing the market size.</li> <li>• IT related Works and communication done quicker, faster and more accurately with the adoption of E-Marketing.</li> <li>• E-Marketing adoption allows us for delivery of products to wider spectrum of the population at reduced cost.</li> <li>• E-Marketing facilitates exchange of productive IT related ideas among the staff.</li> </ul> | (Terrance <i>et al.</i> , 2018; Bhandari <i>et al.</i> , 2018; Shih <i>et al.</i> , 2013; Chen <i>et al.</i> , 2011; Ifeonu, 2014; Al-Somali, 2011; Rahayu,2015; Rabie,2013; and Catherine and Kielgast, 2008; Looi,2005); and the result of semi- structured interview. |
|  |   | <b>E-Marketing Implementation</b> | <p><b>2. E-Marketing Tools</b><br/>Questions in this part concern your firm's E-Marketing adoption (in terms of tools and level) of adoption. Please choose the most appropriate answer that explains the best about your firm's E-Marketing adoption. Please circle the number that reflects the tools of E-Marketing adoption in your company where:<br/>5 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• Our firm uses e-mail in conducting its marketing activities.</li> <li>• Our firm uses mobile marketing in conducting its marketing activities.</li> <li>• Our firm depends heavily on social media in conducting marketing activities.</li> <li>• Our firm uses its intranet in conducting marketing activities.</li> <li>• Our firm uses search engine in conducting marketing activities.</li> </ul>   | Based on the in depth literature review and the results of the research exploratory studies.   |

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|                            |                                      |                           | <p><b>3. E-Marketing Implementation Level</b><br/>Please choose the most appropriate answer that explains the best about your firm's E-Marketing adoption. Please circle the number that reflects the tools of E-Marketing adoption in your company where:</p> <p>5 Items; 1=completely disagree...5= completely agree.</p> <ul style="list-style-type: none"> <li>• In our Firm, we depend on Mobile Marketing to conduct up to ---% of our marketing activities.</li> <li>• In our Firm, we depend on E-Mail Marketing to conduct up to ---% of our marketing activities.</li> <li>• In our Firm, we depend on Social Media Marketing to conduct up to ---% of our marketing activities.</li> <li>• In our Firm, we depend on Intranet Marketing to conduct up to ---% of our marketing activities.</li> <li>• In our Firm we depend on Search Engine Marketing to conduct up to ---% of our marketing activities</li> </ul> | Based on the in-depth literature review and the results of the research exploratory studies.   |
| <b>Dependent variables</b> |                                      |                           |  |  |
| 3                          | Overall firm's marketing performance | Financial performance     | <p>Please specify the degree of your satisfaction regarding your firm's financial performance as a result of E-Marketing adoption. (Circle the number that reflects your satisfaction).</p> <p><b>1. Profitability Growth</b></p> <ul style="list-style-type: none"> <li>• Total firm's profitability growth.</li> <li>• Gross Profit Margin.</li> <li>• Net profit from new operations.</li> <li>• Increase on Return on Marketing Investment.</li> </ul>   | (Terrance <i>et al.</i> , 2018; Bhandari <i>et al.</i> , 2018; Shih <i>et al.</i> ,2013; Chen <i>et al.</i> , 2011, and Catherine and Kielgast, 2008). |
|                            |                                      |                           | <p><b>2. Sales Growth</b></p> <ul style="list-style-type: none"> <li>• Increase sales growth.</li> <li>• Creation of new markets.</li> <li>• Increase in market share of products /services.</li> </ul>  | (Terrance <i>et al.</i> , 2018; Bhandari <i>et al.</i> , 2018; Shih <i>et al.</i> ,2013; Chen <i>et al.</i> , 2011, and Catherine and Kielgast, 2008). |
|                            |                                      | Non-financial performance | <p>(Please indicate the degree of your satisfaction regarding your company's non-financial performance as a result of E-Marketing adoption. (Circle the number that reflects your satisfaction).</p> <p><b>1. Efficiency Performance</b></p> <ul style="list-style-type: none"> <li>• Change in Customer Ordering.</li> <li>• 24/7 availability of after sale services.</li> <li>• Order Accuracy.</li> <li>• Process Enhancement.</li> <li>• Quality Improvement of Service/Product.</li> <li>• Improve in customer services.</li> <li>• New service.</li> <li>• Increase the accessibility to more customers.</li> <li>• Support linkage with suppliers.</li> <li>• Increase the ability to compete.</li> <li>• Support cooperative partnership in the industry.</li> <li>• Improve collaboration and partnership among firms in order to increase the market share.</li> </ul>  | (Terrance <i>et al.</i> , 2018; Bhandari <i>et al.</i> , 2018; Shih <i>et al.</i> ,2013; Chen <i>et al.</i> , 2011, and Catherine and Kielgast, 2008). |

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|  |  |  | <ul style="list-style-type: none"> <li>• Availability of expertise regardless of physical location.</li> <li>• Improved communications.</li> <li>• Faster delivery and Better service and support from supplier</li> <li>• New customers.</li> <li>• Greater customer loyalty.</li> <li>• Cost reduction</li> <li>• Identify New Suppliers.</li> <li>• Delivery Reliability.</li> </ul> |  |
|  |  |  | <p><b>2. Knowledge Performance</b></p> <ul style="list-style-type: none"> <li>• Improved information.</li> <li>• Better awareness of business environment.</li> <li>• Technological knowledge.</li> <li>• New ideas about new technology services.</li> <li>• Enhancement of the managerial capabilities.</li> </ul>  | (Terrance <i>et al.</i> , 2018; Bhandari <i>et al.</i> , 2018; Shih <i>et al.</i> ,2013; Chen <i>et al.</i> , 2011, and Catherine and Kielgast, 2008). |
|  |  |  | <p><b>3. Operational Performance</b></p> <ul style="list-style-type: none"> <li>• Free the business of technical disruption/delays.</li> <li>• Aid and improve the inter-company communication.</li> <li>• Elimination of geographical restriction and market.</li> <li>• Time reduction of routine service jobs.</li> </ul>  | (Kraemer, 2002; Molla and Heeks, 2007; Abebe, 2014; Garg and Choou, 2015; and Jahanshahi, <i>et al.</i> ,2012)   |
|  |  |  | <p><b>4. Realisation of Firm's Objectives Performance</b></p> <ul style="list-style-type: none"> <li>• Enhancement of the company's brand image and reputation.</li> <li>• Overall success in the sector.</li> <li>• Longevity and sustainability in the market.</li> </ul>   | (Terrance <i>et al.</i> , 2018; Bhandari <i>et al.</i> , 2018; Shih <i>et al.</i> ,2013; Chen <i>et al.</i> , 2011, and Catherine and Kielgast, 2008). |

Source: Current Researcher

## Appendix 5: Tools of E-Marketing Implementation

| E-Marketing Tools              | Definition  | Discussion  |
|--------------------------------|---|---|
| <b>E-Mail Marketing</b>        | <p>- Marketing strategies developed via utilisation of e-mail, with the purpose of communicating with existing customers and prospects (Alizadeh and Pourashraf, 2015; Waheed and Yang, 2017).</p>  | <ul style="list-style-type: none"> <li>• E-mail marketing is an important medium of marketing communication especially for firms that seek to build and maintain closer relationships with customers and creates brand awareness and long-term relationship (McCloskey, 2006, Chaffey <i>et al.</i>, 2017; Bawm and Nath, 2014; Mullen and Daniels, 2011).</li> <li>• Easy manageable platform that enables the marketers to manage the mailing lists according to their targeted customers as well as design and sending the emails through this platform (Kaur,2017).</li> <li>• Cost-effectiveness, high return on investment, ability to accomplish loyal followers and “the easy possibility to see results”. E-mail data is easy to track, enable the open rate analysis to understand which performs are best among the subscribers. (Copyblogger Media, 2014).</li> <li>• It is not only about sending and bombarding many emails and filling the inbox of audiences. It requires planning to ensure of maximum revenues (Liljeroos 2013; Kaur, 2017).</li> <li>• It is considered as a vital component of e-marketing since been used by 98% of customers (Pavlov, Melville, and Plice, 2018; IWS, 2019).</li> </ul> |
| <b>Search Engine Marketing</b> | <p>-Search Engine Marketing is a tool of e-marketing that is about increasing the visibility of the company’s website in the results of the search engines through organic or paid method (Kaur, 2017).</p>   | <ul style="list-style-type: none"> <li>• There are two different types of SEM; search engine optimisation, which improves the results in search, engines by natural means and search engine advertising which targets at the same aim but by paid means. (Larvanko 2012).</li> <li>• The most important aim of search engine marketing is not to draw attention of big audience but rather to communicate with a potential customer by answering to their search needs by determining the webpage traffic (Yang, Shi, and Wang, 2015).</li> <li>• It focuses on influencing the relevance of the webpage and increasing popularity to be placed better in the organic search results (Joseph <i>et al.</i>, 2017).</li> <li>• According to studies, more than 80% of internet users search for their needed information via the search engine (Yang, Shi, and Wang, 2015).</li> <li>• The purpose of search engine marketing is to increase sales and customers by enhancing the usage of keyword exposure (Aswani, Ilavarasan, and Dwivedi, 2018).</li> </ul>  |
| <b>Social Media Marketing</b>  | <p>-Social media marketing is an e-marketing tool that is based on internet applications which is developed on the conceptual and technical fundamentals of Web 2.0, and lead to the formation and exchange of user-generated content (Sehar, Ashraf, and Azam, 2019).</p> <p>-Social media campaign contains of the endeavour to utilise social media to encourage those who one's firm, items, and solutions are valuable (Salam, Iskandar, Ibrahim, and Farooq, 2019).</p> | <ul style="list-style-type: none"> <li>• The propagation of social media formed a completely new era for organisations and brand owners, compelling them to pursue new collaborative techniques of reaching and engaging to their customers (Gallaughar and Ransbotham, 2010).</li> <li>• SMM in 2012 rapidly expanded the marketing channels and reached the organisations and business owners to more than two thirds of Internet users around the globe and provided incomparable opportunities for brands aimed at reputation building (Spillecke and Perrey, 2015).</li> <li>• Social media are the right platforms for finding data for developing partialities about products/services (Naylor, Lamberton, and West, 2016).</li> <li>• SMM have transformed the way “brand content” is made, distributed, and expended (Tsai and Men, 2013).</li> </ul>  |

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| <p><b>Mobile Marketing</b></p>   | <p>-Mobile Marketing is an e-marketing tool that is extensively measured to be one of the most profitable tools that can be effectually provided through the mobile devices (Guo <i>et al.</i>, 2010).</p> <p>-MM is both two way and multi-way communication and promotion of service/product between organisation and customers via mobile medium technology (Shankar and Balasubramanian, 2009).</p> <p>- MM Is the procedure of systematic: designing, executing and controlling the business activities proposed to bring together firm and customers for the joint benefits or transmission of goods/services where the main point of communication is via mobile device (Maduku, Mpinganjira, and Duh, 2016).</p> | <ul style="list-style-type: none"> <li>• MM is conducted through text messaging (SMS), geo targeting, Combined content, WAP sites, Collaborative voice response, viral, mobile transmission advertising, smart-phone, and mobile telesales (Lamarre <i>et al.</i>, 2012).</li> <li>• Text message is the most basic and most common type of mobile marketing method (Hsu, 2014; Maduku, Mpinganjira, and Duh, 2016).</li> <li>• Is a set of marketing tools, which utilize wireless technologies in smartphones, and networks to make customised and collaborative communication between a firm and the targeted audiences, leading to a value creation for both sides (Maduku, 2016)</li> <li>• One of the main feature of MM is that it enables firms for a constant accessibility to customers at “anytime” and “anywhere” and establish a global e-presence. This makes the tool dynamic, operative and personal e-marketing medium (Hofacker <i>et al.</i>, 2016).</li> <li>• Recent reports by (E-marketer, 2019), stated that universal mobile marketing expenditure in 2019 amounted to 18 Billion US Dollars.</li> <li>• MM is the most common and existing tool for organisations and businesses in developing economies as countries do not have the IT infrastructure in developed countries (Fritz, Sohn, and Seegebarth, 2017; Shankar, 2016).</li> <li>• It is estimated that the potential of MM will go beyond 183 Billion Dollars in the next 5 years and over half of the world’s population will have at least one smartphone device (Statista, 2019).</li> </ul> |
| <p><b>Intranet Marketing</b></p> | <p>-Intranet Marketing is one of the tools and is a medium to establish internal communication between the organisation’s employees. With intranet, messages are transmitted via a gateway with a firewall between the employees that cannot be seen and are not accessible by any external (Park, Park, and Heo, 2018).</p> <p>-It is a limited access or internal(private) network which is alike internet as the functionality, however only accessible for internals within the organization which enables employees for sharing the data and information via e-mail and world wide web (Chaffey, Hemphill, and Edmundson-Bird, 2019).</p>   | <ul style="list-style-type: none"> <li>• It has a potential of allowing firms to develop interaction and communication between the employees, thus enhancing efficiency and offering remarkable savings in costs, time, and money (Mohammed,2015).</li> <li>• Although internet and intranet, both using elements such as e-mail and web, however there are two main differences between them (Underwood,2017; El-Gohary,2009):</li> <li>• The intranet users are able to get on the internet, however internet users around the globe cannot get access into intranet.</li> <li>• Intranet is usable without internet and wireless connections.</li> <li>• It is one of the e-marketing tools that is beneficial for developing internal marketing (Roshan and Rao, 2016; Mishra, Mishra, and Walker, 2016).</li> <li>• According to Market research future (2020), the universal intranet service as a marketing tool is valued at 10 billion US dollars in 2018 and is forecasted to have the increase, up to 14.2% by 2024 and reach to 25.5 billion US dollars.</li> </ul>   |

## Appendix 6: Summary of E-Adoption Stage Models Since Early 1970s

| E-Adoption Stage Models   | Description   | Authors                           |
|---|---|-----------------------------------|
| Four Stages of PC Growth  | <ul style="list-style-type: none"> <li>Initial stage (PC Acquisition)</li> <li>Contagion (Concentrated system improvement)</li> <li>Control</li> <li>Business Integration</li> </ul>  | (Nolan, 1973, 1979).              |
| Six Stages of Growth  | <ul style="list-style-type: none"> <li>Initial stage (PC Acquisition).</li> <li>Contagion (Concentrated system improvement).</li> <li>Control.</li> <li>Business Integration.</li> <li>Information Management.</li> <li>Maturity.</li> </ul>            |                                   |
| Five Stages Growth Model Related to The Improvement of Online Selling | <ul style="list-style-type: none"> <li>Image and Service/Product Data.</li> <li>Info Collection.</li> <li>Customer Support/Service.</li> <li>Internal Support/Service.</li> <li>Transactions.</li> </ul>  | (Quelch and Klein, 1996).         |
| IT Technology Adoption Levels   | <ul style="list-style-type: none"> <li>Info Admittance.</li> <li>Work Partnership.</li> <li>Fundamental Business Trades.</li> </ul>   | (Nambisan and Wang, 1999).        |
| Intranet Network Adoption Stages                                      | <ul style="list-style-type: none"> <li>Issuing.</li> <li>Performing.</li> <li>Networking.</li> <li>Searching.</li> <li>Recording.</li> </ul>  | (Damsgaard and Scheepers, 1999).  |
| Shifting to E-business  | <ul style="list-style-type: none"> <li>Web Presence.</li> <li>Accessibility to Data and Manage Business.</li> <li>Assimilation of Skills, Procedures and Technologies.</li> <li>Ability, Leveraging Knowledge and Know How To Exploit Value.</li> </ul> | (Willcocks <i>et al.</i> , 2000). |
| Three levels of E-Marketing   | <ul style="list-style-type: none"> <li>Experimentation.</li> <li>Integration.</li> <li>Transformation.</li> </ul>   | (Hackbath and Kehinger, 2000).    |
| Ladder of E-Adoption (From Stage 0 to Stage 5)                        | <ul style="list-style-type: none"> <li>0. No Internet Connection.</li> <li>1. Email.</li> <li>2. Website.</li> <li>3. E-Commerce.</li> <li>4. E-Business.</li> <li>5. Transformed Firm.</li> </ul>  | (Martin and Matlay, 2001).        |
| Measurements and Phases of E-Government Growth                        | <ul style="list-style-type: none"> <li>Cataloguing.</li> <li>Business Transaction.</li> <li>Vertical Integration.</li> <li>Horizontal Integration.</li> </ul>   | (Layne and Lee, 2001).            |
| Stages of E-Government  | <ul style="list-style-type: none"> <li>Basic Information about Firm.</li> <li>Two-Way Communication.</li> <li>Transaction.</li> <li>Integration.</li> <li>Political Participation.</li> </ul>   | (Hiller and Bélanger, 2001).      |
| Level of E-Marketing Adoption (From Stage 0 to Stage 4)               | <ul style="list-style-type: none"> <li>0. E-Mail Adoption.</li> <li>1. Internet Presence.</li> <li>2. Prospecting.</li> <li>3. Business Integration.</li> <li>4. Business Transformation.</li> </ul>  | (Teo and Pian, 2003).             |

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| <b>Growth Model for E-Commerce Development</b>                     | <ul style="list-style-type: none"> <li>• Internet Presence.</li> <li>• Portals.</li> <li>• Transactions Integration.</li> <li>• Innovativeness Integration.</li> </ul>   | (Rao <i>et al.</i> , 2003).               |
| <b>Buy-Side E-Commerce Stages</b>                                  | <ul style="list-style-type: none"> <li>• No Use of the Network.</li> <li>• Review and Selection from Competing Merchants By means of Intermediate Websites.</li> <li>• Orders Placed Electronically Over EDI, Through Intermediate Sites.</li> <li>• Orders Placed Electronically with Integration of Organisation's Procurement Schemes.</li> <li>• Orders Placed Electronically.</li> </ul>              | (Chaffey <i>et al.</i> , 2003, 2011).     |
| <b>Sell-Side E-Commerce Stages (From Stage 0 to Stage 5)</b>       | <ul style="list-style-type: none"> <li>• 0. No Presence on Web.</li> <li>• 1. Simple Web Presence.</li> <li>• 2. Basic Static Informational Webpage.</li> <li>• 3. Basic Interactive Site.</li> <li>• 4. Interactive Website Supporting Trades with Customers.</li> <li>• 5. A Complete Interactive Site Supporting the Entire Buying Process.</li> </ul>  |   |
| <b>Ladder of Connectivity</b>                                      | <ul style="list-style-type: none"> <li>• From Stage 0 (No Presence) To Stage 6 (Advanced E-Commerce).</li> </ul>   | (Murphy and Symonds, 2004).               |
| <b>Six-stages of E-Business Adoption (From Stage 0 to Stage 5)</b> | <ul style="list-style-type: none"> <li>• 0. Not Internet Connection.</li> <li>• 1. Connected to the Internet Via e-mail.</li> <li>• 2. Static Website.</li> <li>• 3. Interactive Web presence.</li> <li>• 4. Transitive Website.</li> <li>• 5. Integrated Website.</li> </ul>  | (Molla and Licker 2005a, 2005b).          |
| <b>Four Levels of Online Marketing Adoption</b>                    | <ul style="list-style-type: none"> <li>• Basic Information and E-mail.</li> <li>• Static Website and the Broad Use of E-Mail.</li> <li>• Online Ordering.</li> <li>• Online Transactions.</li> </ul>   | (Chen and McQueen, 2008).                 |
| <b>Five Levels of E-Commerce Development</b>                       | <ul style="list-style-type: none"> <li>• 0. No Internet and E-mail.</li> <li>• 1. Broad Usage of E-mail and Website as Marketing Tool.</li> <li>• 2. Interact With Customers.</li> <li>• 3. Online Interaction and Communication internally with employees, as well as suppliers.</li> <li>• 4. Online Exchange and E-Marketplace for Suppliers/Business Partners, and Customers and internals.</li> </ul> | (NCC, 2009).                              |
| <b>The E-Commerce Staircase</b>                                    | <ul style="list-style-type: none"> <li>• From Stage 0 (Not Started) To Stage 6 (Advanced E-Commerce).</li> </ul>   | (Thomas <i>et al.</i> , 2009).            |
| <b>Stages of The E-Commerce Adoption Ladder</b>                    | <ul style="list-style-type: none"> <li>• From Stage 0 (Not Started) To Stage 6 (Advanced E-Commerce).</li> </ul>   | (Beynon-Davies, 2010).                    |
| <b>E-commerce Adoption Ladder</b>                                  | <ul style="list-style-type: none"> <li>• From Stage 0 (Not Started) To Stage 5 (Transformed Company).</li> </ul>   | (Thomas <i>et al.</i> , 2013).            |
| <b>E-Adoption Ladder</b>   | <ul style="list-style-type: none"> <li>• From Stage 1 (E-mail) To Stage 6 (Digital Ecosystem).</li> </ul>  | (Mpofu, Milne, and Watkins-Mathys, 2013). |
| <b>Organisation Level of E-Marketing Adoption</b>                  | <ul style="list-style-type: none"> <li>• From Stage 0 (No Online Capability) To Stage 5 (Integrated webpage).</li> </ul>   | (Al-Somali and Clegg, 2015).              |
| <b>Level of E-commerce Adoption</b>                                | <ul style="list-style-type: none"> <li>• No Adoption.</li> <li>• E-Mail.</li> <li>• Static Website.</li> <li>• Interactive Website.</li> <li>• E-Commerce.</li> <li>• Internal Integration.</li> </ul>   | (Rahayu and Day, 2017).                   |

|   |  |  |
|---|--|--|
| <b>E-business Measurement Evolution Model (From Stage 0 to Stage 8)</b> | <ul style="list-style-type: none"><li>• 0. No Internet Presence.</li><li>• 1. E-Mail.</li><li>• 2. Web Presence.</li><li>• 3. Social Media Presence.</li><li>• 4. E-Commerce.</li><li>• 5. Mobile Applications.</li><li>• 6. Cloud Services.</li><li>• 7. E-Business.</li><li>• 8. Transformed Firm.</li></ul> | (Abdullah, Thomas, Murphy, and Plant, 2018). |
|---|--|--|

**Source:** Developed by Current Researcher

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**Birmingham City Business School,  
Birmingham City University**

**Research Questionnaire regarding” Determinants of Distribution Firms’ Decision to Adopt E-Marketing and The Impact upon Marketing Performance: An Empirical Study of Iranian Firms”**

Dear Sir/Madam,

Your kind cooperation is requested in filling out this questionnaire that is part of a research study on the E-Marketing adoption of Iranian distribution firms, being conducted by the researcher. This research seeks to benefit Iranian distribution firms by shedding light on the determinants that are beneficial in facilitating the firms’ decision makers to expand their businesses through online marketing tools. You and your firm has been chosen to participate in this study based on a random selection. Given the focus of the research, this questionnaire should be completed by the: CEO, Manager/Owner, top managers who are responsible for the E-Marketing /IT related activities within the organisation.

The research is being conducted in partial fulfilment of the requirements for a PhD degree at Birmingham City University, Birmingham, United Kingdom. Please note that this research is purely for academic purposes and the data you provide will be used only for research, the information you provide will contribute to an important part of our research which will help to better understanding of the determinant factors for adoption of E-Marketing.

Your kind responses will be kept strictly confidential following the Data Protection Act (1998) and no one will have access to it except the researcher and the research team. The report of findings will not include the names of individuals and/or companies. If you would like to receive a copy of the study summary report, please indicate this on the relevant forwarding address at the end of the questionnaire. I have enclosed a copy of our questionnaire, which will take you just 20-30 minutes to complete, I appreciate the significant pressure that you currently work under but your company for filling this questionnaire would be extremely helpful to my research. Please kindly answer all the questions.

Finally, by completing this questionnaire you will be one of those who assisted me in completing my thesis and I value this very highly and acknowledge your generosity. I would appreciate your participation in this research and the research team sincerely hopes that you will find the study of interest to you and hopefully to your organisation.

*Thank you very much for your time and cooperation.*

Research Team

***Sepideh Zahiri***

Doctoral Researcher

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***Professor Hatem El-Gohary***

***Professor Javed Ghulam Hussain***

**“Determinants of Distribution Firms’ Decision to Adopt E-Marketing and The Impact upon Marketing Performance: An Empirical Study of Iranian Firms”**

**Survey Questionnaire**

This structured questionnaire is part of a Doctoral research instrument which is attempting to explore the influence of E-Marketing adoption on marketing performance of Iranian companies in distribution sector. Your participation in this survey will be a valuable contribution to my doctoral study. All your responses will be treated completely confidentially. I will save your information only for the duration of my study and I will guarantee full anonymity. If you wish to make additional comments on any of the specific questions or on any issues in general, use the space at the end of the questionnaire. Your opinions are extremely important for understanding how companies adopt E-Marketing and what impact it has on marketing performance of the firm. We greatly appreciate your co-operation.

**Guidance on the Questionnaire:**

- Most questions require just tick-box answers occasionally;
- You are required to write an answer in the space provided;
- All the questions in the questionnaire refer to your firm;
- Where questions ask for your opinion, there are no right or wrong answers. All we are interested in are your perceptions about each factor;
- Please complete all the questions, even if they appear similar;
- All the information that you provide will be kept strictly confidential.

**The questionnaire consists of six sections:**

- Section 1:** Information about the organisation.
- Section 2:** E-Marketing adoption by the organisation.
- Section 3:** E-Marketing implementation by the organisation.
- Section 4:** E-Marketing Performance
- Section 5:** General information about the respondents.
- Section 6:** Contact information about the researcher/Participant for receiving a copy of the research summary report.

*The questionnaire should be filled in by the (Please tick your role in the organisation):*

|                                     |  |
|-------------------------------------|--|
| <input type="checkbox"/> Owner      | <input type="checkbox"/> Top Manager (Please specify): |
| <input type="checkbox"/> CEO/Manger | <input type="checkbox"/> Chairman                      |

*Section 1: Information about the organisation*

**Please respond to the next group of questions about your company.**

In which sector of distribution does your organisation operate in?

|                                    |   |                                   |  |   |                                    |   |
|------------------------------------|---|-----------------------------------|--|---|------------------------------------|---|
| <input type="checkbox"/> Groceries | <input type="checkbox"/> Groceries-Hygienic | <input type="checkbox"/> Hygienic | <input type="checkbox"/> Electronics & Home Appliances | <input type="checkbox"/> Pharmaceutical and Medical Equipment | <input type="checkbox"/> Cosmetics | <input type="checkbox"/> Oil and Petroleum Products |
|------------------------------------|---|-----------------------------------|--|---|------------------------------------|---|

|   |  |   |  |
|---|--|---|--|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Pharmaceutical-Groceries | <input type="checkbox"/> <input type="checkbox"/> Cosmetics-Hygienic | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Battery Distribution | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Distribution of Spare Parts for Automobiles |
|---|--|---|--|

2. Which city is your company Based? \_\_\_\_\_

3. In terms of scope of distribution, your organisation distributes:  
  Locally        Provincially        All over Iran        Internationally        All over Iran and Internationally

4. Approximately the annual sales of the organisation are (in IRR): \_\_\_\_\_

5. Please indicate the average percentage (%) of market growth since the implementation of E-Marketing of the total growth.

Between 0 % and 25 %      Between 26 % and 50 %      Between 51 % and 75 %    and  
  Between 76 % and 100 %

6. Please indicate your average firm profitability growth in percentage (%) since involving in E-Marketing implementation.

Between 0 % and 25 %      Between 26 % and 50 %      Between 51 % and 75 %    and  
  Between 76 % and 100 %

7. Please indicate your average firm Sales growth in percentage (%) since involving in E-Marketing implementation.

Between 0 % and 25 %      Between 26 % and 50 %      Between 51 % and 75 %    and  
  Between 76 % and 100 %

8. Approximately, the capital of your organisation is: \_\_\_\_\_

9. Proportion of Company's annual budget been spent on Marketing as a percentage of the total company budget is?

Less than 5 %      Between 5 % and 10 %      Between 11 % and 15 %    and      Between 16 % and 25 %      Over 25%

10. How many years has your company been involved in E-Marketing implementation? (Please tick the appropriate option that best describes your firm?)

< 5 years       6-10 years        > 10 year

11. How long has the company been in existence?

Less than 3 years<sup>[SEP]</sup>      3 – 5 Years<sup>[SEP]</sup>      6 – 10 years      11 – 15 Years      16 – 20 Years  
  21 Years and above

12. Number of employees in your company?

Less than 10<sup>[SEP]</sup>      10 -49      50-99      100-150      151-250      More than 250

13. How would you describe the ownership structure of your company?

|  |  |  |   |
|--|--|--|---|
| <input type="checkbox"/> Sole Proprietor   | <input type="checkbox"/> Family Business             | <input type="checkbox"/> Mixed non-joint venture | <input type="checkbox"/> Partnership        |
| <input type="checkbox"/> Limited liability | <input type="checkbox"/> Unlimited Liability Company | <input type="checkbox"/> Private Joint Stock     | <input type="checkbox"/> Public Joint Stock |

Kindly describe ownership structure of your company, if different from the above: \_\_\_\_\_

14. Please tick the option that best describes your view on the following statements of Technology consultants' participation and involvement on which ways it influences your firm.

|   |   |
|---|---|
| <input type="checkbox"/> Customising internet-based software. | <input type="checkbox"/> Installing software packages which ease our business operations. |
|---|---|

|  |  |
|--|--|
| <input type="checkbox"/> Doing monthly upgrades.         | <input type="checkbox"/> Attend to technical issues or ensure the packages work optimally. |
| <input type="checkbox"/> Get support for other services. | <input type="checkbox"/> We are not using consultants in our organization.                 |

15. Does your company employ specialist information technology (IT) staff? Yes No

If 'yes', please indicate which of the following types of staff?

System Manager Web Designer System Analyst Programmer Other (please specify):

## Section 2: E-Marketing Adoption by the Organisation

Questions in this section are related to your firm's ability, reactions and enthusiasm to adopt E-Marketing to conduct marketing activities of your organisation. For the purpose of this questionnaire "E-Marketing" which also has known as Online Marketing, involves applying the Internet and related digital technologies to achieve marketing purposes and to support the modern concept of marketing. Here it is defined as "The process of ordering, buying and selling products or services using electronic data transmission via the Internet and the www." The mere use of electronic mail or the use of a web site for electronic publishing purposes also constitute E-Marketing to the definition above. By E-Marketing we mean: conducting marketing activities by using E-Marketing tools such as: E-Mail, Search Engine, Mobile, Intranet, and Social Media Marketing. The questions are developed to measure the factors that affect your E-Marketing adoption.

Please circle the following scale reflects to what extent the following motivates you to adopt E-Marketing for marketing purposes where:

| 1                   | 2        | 3       | 4     | 5                |
|---------------------|----------|---------|-------|------------------|
| Completely Disagree | Disagree | Neutral | Agree | Completely Agree |

### Environmental Factors

By environmental factors we mean: The factors that are not controllable and arise from the outside of the company.

|    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
| 1  | We believe that due to the nature of our supplier wide-ranging IT related acts are necessary to achieve our business objectives.  | 1 | 2 | 3 | 4 | 5 |
| 2  | We believe that due to the nature of our customers wide-ranging IT related acts are necessary to achieve our business objectives. | 1 | 2 | 3 | 4 | 5 |
| 3  | Our organisation regularly solves problems jointly with its suppliers.  | 1 | 2 | 3 | 4 | 5 |
| 4  | Our organisation has continuous quality improvement programs adapted to its business partners.                                    | 1 | 2 | 3 | 4 | 5 |
| 5  | Firms in our supply chain create a compatible communication and information system.   | 1 | 2 | 3 | 4 | 5 |
| 6  | Our firm participates in the continuous efforts for developing new e-marketing techniques for its customers.                      | 1 | 2 | 3 | 4 | 5 |
| 7  | Iran have a cultural resistance toward new ideas such as the Internet.  | 1 | 2 | 3 | 4 | 5 |
| 8  | The organisations' working culture in Iran support the Research and Development (R&D).  | 1 | 2 | 3 | 4 | 5 |
| 9  | Firms and businesses are adaptable with the developments in the ICT technologies.   | 1 | 2 | 3 | 4 | 5 |
| 10 | There is a shortage of government legislation to regulate the use of the Internet.  | 1 | 2 | 3 | 4 | 5 |
| 11 | IT consultants are helpful for our firm in reducing time consuming and tiring business processes.                                 | 1 | 2 | 3 | 4 | 5 |
| 12 | Organisation would require IT assistance for technical issues and system failures within company's IT infrastructure.             | 1 | 2 | 3 | 4 | 5 |
| 13 | Technology consultants are beneficial for customising internet-based software.  | 1 | 2 | 3 | 4 | 5 |
| 14 | Technology consultants are helpful in Installing software packages which ease our business operations.                            | 1 | 2 | 3 | 4 | 5 |
| 15 | Technology consultants are useful for monthly upgrades.   | 1 | 2 | 3 | 4 | 5 |

## Individual Factors

By Individual factors we mean: the factors that are controllable and arise from outside the company.

|    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
| 1  | How I use technology influences my customers.   | 1 | 2 | 3 | 4 | 5 |
| 2  | People who are important to my firm (customers, suppliers, information system people, industry peers) think that we should use the E-Marketing. | 1 | 2 | 3 | 4 | 5 |
| 3  | There has been a dramatic change in the last 5 years in my business due to IT.  | 1 | 2 | 3 | 4 | 5 |
| 4  | There will be a dramatic change over the next 5 years in my business due to IT.   | 1 | 2 | 3 | 4 | 5 |
| 5  | E-Marketing Adoption of competitors, influence the firm's decision in adoption.   | 1 | 2 | 3 | 4 | 5 |
| 6  | How I use technology influences my competitors.   | 1 | 2 | 3 | 4 | 5 |
| 7  | How I use technology influences my suppliers.   | 1 | 2 | 3 | 4 | 5 |
| 8  | I use online services if my suppliers also used them.   | 1 | 2 | 3 | 4 | 5 |
| 9  | I use online services if my customers also used them.   | 1 | 2 | 3 | 4 | 5 |
| 10 | People around me who use the E-Marketing system have more prestige.   | 1 | 2 | 3 | 4 | 5 |
| 11 | Top managements in the organisation are helpful in solving problems related to IT system.   | 1 | 2 | 3 | 4 | 5 |
| 12 | Management is really keen to see that we are happy using new technology systems.  | 1 | 2 | 3 | 4 | 5 |
| 13 | There is sufficient support for E-Marketing from top management.  | 1 | 2 | 3 | 4 | 5 |
| 14 | The owner or manager enthusiastically supports the use of a web site for marketing aims.  | 1 | 2 | 3 | 4 | 5 |
| 15 | I am convinced that management is sure as to what benefits can be achieved with the use of E-Marketing,   | 1 | 2 | 3 | 4 | 5 |
| 16 | Management has provided most of the necessary help and resources to get us used to the systems quickly.   | 1 | 2 | 3 | 4 | 5 |
| 17 | We could adopt E-Marketing with very little effort.   | 1 | 2 | 3 | 4 | 5 |
| 18 | Staff would need to undertake training.   | 1 | 2 | 3 | 4 | 5 |
| 19 | I would require training to be able to use such a system.   | 1 | 2 | 3 | 4 | 5 |
| 20 | Learning to operate E-Marketing would be easy for me.   | 1 | 2 | 3 | 4 | 5 |
| 21 | Learning to interact with the website would be easy for me.   | 1 | 2 | 3 | 4 | 5 |
| 22 | Interacting with this retailer's Website does not require a lot of mental effort.   | 1 | 2 | 3 | 4 | 5 |
| 23 | I find E-Marketing to be flexible to interact with.   | 1 | 2 | 3 | 4 | 5 |
| 24 | I find E-Marketing easy to use.   | 1 | 2 | 3 | 4 | 5 |
| 25 | It would be easy for me to become skilful at using E-Marketing.   | 1 | 2 | 3 | 4 | 5 |
| 26 | My interaction with E-Marketing would be clear and understandable.  | 1 | 2 | 3 | 4 | 5 |
| 27 | The implementation of E-Marketing meets our business aims.  | 1 | 2 | 3 | 4 | 5 |
| 28 | Every function at my company is supported by Information Technology.  | 1 | 2 | 3 | 4 | 5 |
| 29 | My job's responsibility Fit with PC use.  | 1 | 2 | 3 | 4 | 5 |
| 30 | Using E-Marketing would fit into my workstyle   | 1 | 2 | 3 | 4 | 5 |
| 31 | Using the marketing shorten the duration of time needed to accomplish important job responsibilities.   | 1 | 2 | 3 | 4 | 5 |
| 32 | E-Marketing is suited to our customers and suppliers.   | 1 | 2 | 3 | 4 | 5 |
| 33 | E-Marketing is suited to way business is conducted.   | 1 | 2 | 3 | 4 | 5 |
| 34 | Our business is compatible with all aspects of E-Marketing.   | 1 | 2 | 3 | 4 | 5 |
| 35 | The internet is compatible with all aspects of the work of the organisation.  | 1 | 2 | 3 | 4 | 5 |
| 36 | Technological changes provide big opportunities in our industry.  | 1 | 2 | 3 | 4 | 5 |
| 37 | Using the marketing shorten the duration of time needed to accomplish important job responsibilities.   | 1 | 2 | 3 | 4 | 5 |
| 38 | Adoption of E-Marketing in long-term reducing the cost of our business operations.  | 1 | 2 | 3 | 4 | 5 |
| 39 | Adoption of E-Marketing in long-term Increase sales.  | 1 | 2 | 3 | 4 | 5 |
| 40 | Adoption of E-Marketing in long-term Support cooperative partnership in the industry.   | 1 | 2 | 3 | 4 | 5 |
| 41 | It is very difficult to forecast where technology in our industry will be in the next 2 to 3 years.   | 1 | 2 | 3 | 4 | 5 |
| 42 | E-Marketing adoption provides big opportunities in our organisation.  | 1 | 2 | 3 | 4 | 5 |
| 43 | A large number of new service ideas have been possible though technological breakthrough in our industry.                                       | 1 | 2 | 3 | 4 | 5 |

## Organisation Factors

By organisational factors we mean: the factors that are controllable and arise from inside the company.

|    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
| 1  | Our organisation perceives that E-Marketing is adaptable with the company's culture.  | 1 | 2 | 3 | 4 | 5 |
| 2  | I think E-Marketing is compatible with my aspects and cultural value.   | 1 | 2 | 3 | 4 | 5 |
| 3  | The sense around here is that employee learning is an investment, not an expense.   | 1 | 2 | 3 | 4 | 5 |
| 4  | Managers basically agree that our organisation's ability to learn is the key to our competitive advantage.                            | 1 | 2 | 3 | 4 | 5 |
| 5  | The basic values of this organisation include learning as key to improvement.   | 1 | 2 | 3 | 4 | 5 |
| 6  | Our firm is highly computerised with internal and external network connections which connect the company to its other branches.       | 1 | 2 | 3 | 4 | 5 |
| 7  | We have high and speed connectivity to the Internet.  | 1 | 2 | 3 | 4 | 5 |
| 8  | The majority of organisation's employees have basic ICT literacy.   | 1 | 2 | 3 | 4 | 5 |
| 9  | We have sufficient skilled human resources to implement E-Marketing.  | 1 | 2 | 3 | 4 | 5 |
| 10 | Our company has individual(s) who be able to plan and carry out several parts of the assessment process of E-Marketing implementation | 1 | 2 | 3 | 4 | 5 |
| 11 | Working environment encourages ICT employees to develop their abilities.  | 1 | 2 | 3 | 4 | 5 |
| 12 | Most of our staffs have unrestricted admission to PCs.  | 1 | 2 | 3 | 4 | 5 |
| 13 | A central support (e.g., Information centre, help desk) is available to help out with problems  | 1 | 2 | 3 | 4 | 5 |
| 14 | Most of our employees are knowledgeable in ICT.   | 1 | 2 | 3 | 4 | 5 |
| 15 | We are constantly updated on new software that can help us to use computers more effectively.   | 1 | 2 | 3 | 4 | 5 |
| 16 | Our organisation has the financial resources to adopt E-Marketing.  | 1 | 2 | 3 | 4 | 5 |
| 17 | Our firm respond well to industry competitors and any other changes in the business environment                                       | 1 | 2 | 3 | 4 | 5 |
| 18 | In our firm, staff easily accept any changes in the organizational roles.   | 1 | 2 | 3 | 4 | 5 |
| 19 | In my company, employees easily accept any changes in the software applications that they use.  | 1 | 2 | 3 | 4 | 5 |
| 20 | Our company is capable to adapt itself with the fast changes of technology.   | 1 | 2 | 3 | 4 | 5 |
| 21 | We have a strong tendency to be ahead of others in adopting new technology.   | 1 | 2 | 3 | 4 | 5 |
| 22 | Internet and its applications is used extensively for marketing in my organisation.   | 1 | 2 | 3 | 4 | 5 |
| 23 | We make a good job of evolving new trading services over E-Marketing  | 1 | 2 | 3 | 4 | 5 |
| 24 | New technology adoption enables us to distribute our organization' products online as well as offline.                                | 1 | 2 | 3 | 4 | 5 |
| 25 | P.R. activities such as advertising over the Internet give the company more market share opportunity.                                 | 1 | 2 | 3 | 4 | 5 |
| 26 | In this company, only key strategic decisions need to be confirmed by top management.   | 1 | 2 | 3 | 4 | 5 |
| 27 | Small problems can be solved with by employees in operational level.  | 1 | 2 | 3 | 4 | 5 |
| 28 | In the company if any of the Employees want to make their own decision would be encouraged.   | 1 | 2 | 3 | 4 | 5 |
| 29 | Any situation happens, we have processes to follow t deal with the situation.   | 1 | 2 | 3 | 4 | 5 |
| 30 | Each employee has a particular task to do.  | 1 | 2 | 3 | 4 | 5 |
| 31 | Our organisation has very tough rules of adopting and investing in new technologies.  | 1 | 2 | 3 | 4 | 5 |
| 32 | Our organisation has developed regulation to support the E-Marketing technology within the firm.                                      | 1 | 2 | 3 | 4 | 5 |
| 33 | Our company has rules and procedures related to new technology systems and most of the time they are well defined in written form.    | 1 | 2 | 3 | 4 | 5 |
| 34 | Our organisation is enacting regulations that protect the right of privacy and safety of personal information.                        | 1 | 2 | 3 | 4 | 5 |
| 35 | Regulations are the main hurdle for E-Marketing in our company (electronic transaction act, consumer protection law etc.).            | 1 | 2 | 3 | 4 | 5 |
| 36 | Our firm's employees have sufficient knowledge with information technology.   | 1 | 2 | 3 | 4 | 5 |
| 37 | Most of Our firm's employees are experienced with IT tools.   | 1 | 2 | 3 | 4 | 5 |
| 38 | Our staff have the skill to use E-Marketing tools.  | 1 | 2 | 3 | 4 | 5 |
| 39 | Our company has skilled technical support staff.  | 1 | 2 | 3 | 4 | 5 |
| 40 | Our company has capable technical support staff.  | 1 | 2 | 3 | 4 | 5 |
| 41 | Our company employees are experienced with information technology.  | 1 | 2 | 3 | 4 | 5 |
| 42 | Manager, have IT knowledge for implementation of E-Marketing.   | 1 | 2 | 3 | 4 | 5 |

|    |  |   |   |   |   |   |
|----|--|---|---|---|---|---|
| 43 | Management has the skill to use E-Marketing tools.                                       | 1 | 2 | 3 | 4 | 5 |
| 44 | Top management is aware of the of the website and technology functions toward marketing. | 1 | 2 | 3 | 4 | 5 |
| 45 | Management always has new, innovative IT ideas.  | 1 | 2 | 3 | 4 | 5 |

### **Technical Factors**

By Technical factors we mean: the factors that are not controllable and arise from outside the company.

|    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
| 1  | Stability in IT infrastructure widen our choice of how to reach clients or other business associates.   | 1 | 2 | 3 | 4 | 5 |
| 2  | Internet access and other IT facilities are at affordable prices to our firm.   | 1 | 2 | 3 | 4 | 5 |
| 3  | There are challenges with the bandwidth strength/speed of the internet here in Iran.  | 1 | 2 | 3 | 4 | 5 |
| 4  | The system is never suffering from shutdown problems.   | 1 | 2 | 3 | 4 | 5 |
| 5  | Online customer services are always available.  | 1 | 2 | 3 | 4 | 5 |
| 6  | Inadequate speed and quality of telecommunication infrastructure negatively impact on our business.   | 1 | 2 | 3 | 4 | 5 |
| 7  | The system provides continuous access to other resources.   | 1 | 2 | 3 | 4 | 5 |
| 8  | The slow speed constrained us in using E-Marketing to the optimum in our operations.  | 1 | 2 | 3 | 4 | 5 |
| 9  | The implementation of E-Marketing avoids negative issues (e.g., High costs, time, taking traditional methods, etc.)   | 1 | 2 | 3 | 4 | 5 |
| 10 | The owner or manager has allocated adequate resources to development of a web site.   | 1 | 2 | 3 | 4 | 5 |
| 11 | The high costs of maintaining a web site (upgrading, installing new software, and updating information) influence our decision for adoption of E-Marketing. | 1 | 2 | 3 | 4 | 5 |
| 12 | The initial cost of developing a web site is high for our company.  | 1 | 2 | 3 | 4 | 5 |
| 13 | Using E-Marketing enables the company to conduct online transactions anytime.   | 1 | 2 | 3 | 4 | 5 |
| 14 | Using Chart-Master in my job would enable me to accomplish tasks more quickly.  | 1 | 2 | 3 | 4 | 5 |
| 15 | I believe that using E-Marketing enables me to manage the internal interactions more effectively.   | 1 | 2 | 3 | 4 | 5 |
| 16 | I would find E-Marketing useful in my job.  | 1 | 2 | 3 | 4 | 5 |
| 17 | Top management is aware of the benefits of E-Marketing use for the company.   | 1 | 2 | 3 | 4 | 5 |
| 18 | I believe that using E-Marketing enables me to manage the external interactions more effectively.   | 1 | 2 | 3 | 4 | 5 |
| 19 | Our organisation perceives that E-Marketing is consistent with the company's preferred work practices.  | 1 | 2 | 3 | 4 | 5 |
| 20 | My company exchange more information now with internet customers than we did before the internet was used.  | 1 | 2 | 3 | 4 | 5 |
| 21 | The E-Marketing is consistent with the values, believes and business needs of my company.   | 1 | 2 | 3 | 4 | 5 |
| 22 | E-Marketing would be consistent with our existing technology infrastructure.  | 1 | 2 | 3 | 4 | 5 |
| 23 | Using E-Marketing would enable my company to accomplish specific tasks more quickly.  | 1 | 2 | 3 | 4 | 5 |
| 24 | Using E-Marketing in my job would increase my productivity.   | 1 | 2 | 3 | 4 | 5 |
| 25 | Using the internet improves the quality of the marketing activities   | 1 | 2 | 3 | 4 | 5 |
| 26 | The internet supports critical aspects of my job.   | 1 | 2 | 3 | 4 | 5 |
| 27 | Using the internet gives me greater control over my work.   | 1 | 2 | 3 | 4 | 5 |
| 28 | Using the internet allows me to accomplish more marketing work than would otherwise be possible.  | 1 | 2 | 3 | 4 | 5 |
| 29 | Using E-Marketing would improve my job performance.   | 1 | 2 | 3 | 4 | 5 |
| 30 | I find E-Marketing useful in my job.  | 1 | 2 | 3 | 4 | 5 |
| 31 | Using E-Marketing make it easier to do my job.  | 1 | 2 | 3 | 4 | 5 |
| 32 | Using E-Marketing enhance my effectiveness on the job.  | 1 | 2 | 3 | 4 | 5 |

**Section 3. E-Marketing implementation by the organisation**

This part concerns your reactions and willingness to undertake expansion of the marketing strategies of the firm through adoption of E-Marketing. **Please circle the following scale reflects to what extent the following motivates you to adopt E-Marketing for marketing purposes where:**

| 1                   | 2        | 3       | 4     | 5                |
|---------------------|----------|---------|-------|------------------|
| Completely Disagree | Disagree | Neutral | Agree | Completely Agree |

|   |  |   |   |   |   |   |
|---|--|---|---|---|---|---|
| 1 | E-Marketing make our job operations easier.  | 1 | 2 | 3 | 4 | 5 |
| 2 | E-Marketing facilitates exchange of productive ideas among the staff (e.g. aid inter-company communication, more idea exchange and business transactions). | 1 | 2 | 3 | 4 | 5 |
| 3 | E-Marketing facilitates seamless operational efficiency free of technical disruption and delays.   | 1 | 2 | 3 | 4 | 5 |
| 4 | E-Marketing allows us for increasing the market size.  | 1 | 2 | 3 | 4 | 5 |
| 5 | IT related Works and communications done quicker, faster and more accurately with the adoption of E-Marketing .  | 1 | 2 | 3 | 4 | 5 |
| 6 | E-Marketing adoption allows us for delivery of products to wider spectrum of the population at reduced cost.   | 1 | 2 | 3 | 4 | 5 |
| 7 | E-Marketing facilitates exchange of productive IT related ideas among the staff.   | 1 | 2 | 3 | 4 | 5 |

Questions in this part concern your firm’s e-marketing adoption (in terms of adoption level). Please choose the most appropriate answer that explains the best about your firm’s e-marketing adoption. **Please circle the number that reflects the level of e-marketing adoption in your company where:**

| 1                   | 2        | 3       | 4     | 5                |
|---------------------|----------|---------|-------|------------------|
| Completely disagree | Disagree | Neutral | Agree | Completely agree |

**In your Organisation:**

|    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
| 1  | We use E-Marketing resources (such as web site and e-mail) to communicate with our customers/suppliers.   | 1 | 2 | 3 | 4 | 5 |
| 2  | We running the business mostly based on the traditional methods combined with some strategies of E-Marketing.   | 1 | 2 | 3 | 4 | 5 |
| 3  | We have informative website for informing the customers with general company information.   | 1 | 2 | 3 | 4 | 5 |
| 4  | We use our website for activities such as receive customer inquiries about company's new goods and services, their price and receive customers' order.  | 1 | 2 | 3 | 4 | 5 |
| 5  | We use our website for transactional activities such as, selling products, online payments.   | 1 | 2 | 3 | 4 | 5 |
| 6  | We use our Web site with added features for interactive marketing/sales, online communities and online orders and sometimes online payments.  | 1 | 2 | 3 | 4 | 5 |
| 7  | We use E-Marketing resources to conduct commercial transactions (e.g., selling products and accepting payment via web site).  | 1 | 2 | 3 | 4 | 5 |
| 8  | We use our website integrated with suppliers, customers, and other back-office systems allowing most business transactions to be conducted electronically.  | 1 | 2 | 3 | 4 | 5 |
| 9  | We use E-Marketing resources (such as e-mail, search engines) to advertise our products/services.   | 1 | 2 | 3 | 4 | 5 |
| 10 | We have customised softwares for customers/suppliers that we use for commercial transactions (e.g., getting order, selling products and accepting payment via web site).                              | 1 | 2 | 3 | 4 | 5 |
| 11 | We computerised customer database that we use to be accessible for all internal employees, partners, or others outside the company (other branches) anywhere where we don't have a physical presence. | 1 | 2 | 3 | 4 | 5 |

Please review and circle the number that shows the level to which you agree or disagree with the statement.

|                            |                 |                |              |                         |
|----------------------------|-----------------|----------------|--------------|-------------------------|
| <b>1</b>                   | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                |
| <b>Completely disagree</b> | <b>Disagree</b> | <b>Neutral</b> | <b>Agree</b> | <b>Completely agree</b> |

**Our Organisation:**

|   |  |   |   |   |   |   |
|---|--|---|---|---|---|---|
| 1 | We use e-mail for running our marketing strategies.                                | 1 | 2 | 3 | 4 | 5 |
| 2 | We use Search Engine Marketing for optimising our website.                         | 1 | 2 | 3 | 4 | 5 |
| 3 | We use Social Media Marketing to run organisation's business strategies.           | 1 | 2 | 3 | 4 | 5 |
| 4 | We use Intranet Marketing for marketing activities such as promotions.             | 1 | 2 | 3 | 4 | 5 |
| 5 | We use Mobile Marketing to conduct marketing activities.                           | 1 | 2 | 3 | 4 | 5 |
| 6 | Our organisation's marketing activities highly depends on E-Marketing application. | 1 | 2 | 3 | 4 | 5 |

2. We consider our web site as:

1.  Static    2.  Interactive    3.  Dynamic

3. How many e-marketing initiatives your organisation planned for the next year (e.g., new payment method, improvement of online presence etc.)?

|                                 |   |                                     |
|---------------------------------|---|-------------------------------------|
| <input type="checkbox"/> 1. one | <input type="checkbox"/> 2. More than one | <input type="checkbox"/> 3. No Plan |
|---------------------------------|---|-------------------------------------|

Please review and circle the number that shows the level to which you agree or disagree with the statement:

| In our firm, we use                               | Adopt up to...% for our firm's marketing activities |     |     |     |      |
|---|---|-----|-----|-----|------|
|   | 0%  | 25% | 50% | 75% | 100% |
| ▪ E-mail Marketing                                |   |     |     |     |      |
| ▪ Intranet Marketing                              |   |     |     |     |      |
| ▪ Social Media Marketing                          |   |     |     |     |      |
| ▪ Mobile Marketing                                |   |     |     |     |      |
| ▪ Search engine marketing                         |   |     |     |     |      |
| ▪ Other tools of E-Marketing<br>(Please specify): |   |     |     |     |      |

**Section 4: E-Marketing Performance**

Questions in this section related to the measurement of your organisation's E-Marketing performance and determining the impact of E-Marketing adoption on marketing performance of your firm. Please indicate the degree of your satisfaction regarding your company's financial and non-financial performance as a result of E-Marketing adoption. (Circle the number that reflects your satisfaction).

4. Please circle the number that reflects to what extent the following statement is applicable to your organisation, where:

|                            |                 |                |              |                         |
|----------------------------|-----------------|----------------|--------------|-------------------------|
| <b>1</b>                   | <b>2</b>        | <b>3</b>       | <b>4</b>     | <b>5</b>                |
| <b>Completely disagree</b> | <b>Disagree</b> | <b>Neutral</b> | <b>Agree</b> | <b>Completely agree</b> |

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1 | In our organisation, financial performance measures are adequate to evaluate our E-Marketing.   | 1 | 2 | 3 | 4 | 5 |
| 2 | In our organisation, non-financial performance measures are adequate to evaluate our E-Marketing.   | 1 | 2 | 3 | 4 | 5 |
| 3 | We do not be subject to on E-Marketing Performance measures evaluate our E-Marketing performance; BUT, we are going to do in the near future. | 1 | 2 | 3 | 4 | 5 |

**B. The following questions highlighting the impact of e-marketing implementation on the marketing performance of your firm. Please circle the number that reflects to what extent you think that the following currently are or will, in the future, be influenced by the implementation of E-Marketing in your organisation.**

**In my organisation, implementing E-Marketing conducted to:**

| Measures  | Currently |   |   |   |   | In Future |   |   |   |   |
|---|-----------|---|---|---|---|-----------|---|---|---|---|
|   | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Total firm's profitability growth.                            | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Gross Profit Margin.  | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Net profit from new operations.                               | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Increase on Return on Marketing Investment.                   | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Increase sales growth.  | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Creation of new markets.                                      | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Increase in market share of products/services.                | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Change in Customer Ordering.                                  | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| 24/7 Availability of after sale services.                     | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Order Accuracy.   | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Process Enhancement.  | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Quality Improvement of Service/Product.                       | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Improve in customer services.                                 | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| New service.  | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Increase the accessibility to more customers.                 | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Support linkage with suppliers.                               | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Increase the ability to compete.                              | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Support cooperative partnership in the industry.              | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Improve collaboration and partnership among firms.            | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Availability of expertise regardless of physical location.    | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Improved communications.                                      | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Faster delivery and better service and support from supplier. | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| New customers.  | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Greater customer loyalty.                                     | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Cost reduction.   | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Identify New Suppliers.                                       | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |
| Delivery Reliability.   | 1         | 2 | 3 | 4 | 5 | 1         | 2 | 3 | 4 | 5 |

|  |   |   |   |   |   |  |   |   |   |   |   |
|--|---|---|---|---|---|--|---|---|---|---|---|
| Improved information.                                    | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Better awareness of business environment.                | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Technological knowledge.                                 | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| New ideas about new technology services.                 | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Enhancement of the managerial capabilities.              | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Free the business of technical disruption/delays.        | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Aid and improve the inter-company communication.         | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Elimination of geographical restriction and market.      | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Time reduction of routine service jobs.                  | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Enhancement of the company's brand image and reputation. | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Overall success in the distribution sector.              | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |
| Longevity and sustainability in the market.              | 1 | 2 | 3 | 4 | 5 |  | 1 | 2 | 3 | 4 | 5 |

#### Section 5: General information about the respondents (Personal profile):

▪ **Please tick in the appropriate box**

1. What is your role in the organisation? \_\_\_\_\_
2. Age Category

|                                       |                                    |                                    |                                    |   |
|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|---|
| <input type="checkbox"/> Under 30 yrs | <input type="checkbox"/> 30-40 yrs | <input type="checkbox"/> 41-50 yrs | <input type="checkbox"/> 51-60 yrs | <input type="checkbox"/> More than 60 yrs |
|---------------------------------------|------------------------------------|------------------------------------|------------------------------------|---|

3. Level of Education

|  |  |   |  |  |
|--|--|---|--|--|
| <input type="checkbox"/> Collage certificate | <input type="checkbox"/> Undergraduate Studies | <input type="checkbox"/> Postgraduate studies | <input type="checkbox"/> Doctoral Degree | <input type="checkbox"/> Other (please specify): |
|--|--|---|--|--|

4. For how long have you been working in your present firm?

1.  Under 5 years
2.  6-10 years
3.  More than 10 year

. Are/were you involved in E-Marketing implementation?  Yes  No

If yes, what is/was your role? \_\_\_\_\_

Was it:  At your company  For other organisation

*Section 6: contact information about the researcher/Participant for receiving a copy of the research summary report.*

Thank you very much for your time and effort, your cooperation is very much appreciated by the research team. The results and major findings of this research can be shared with the participating organisation at no cost. So, if you would like to have a copy of the study results summary report, please complete the following part.

**Contacts Name:** .....  
**Job Title:** .....  
**Company name:** .....  
**Company Address:** .....  
**Post Code:** .....  
**Telephone:** ..... **Mobile:** .....  
**Email address:** .....

- Would you like to involve in further aspects of this research?  
Yes  No

Please, if you have any comment or issue you feel particularly important in the context of E-Marketing in Distribution firms, please do use this section for your comments.

*Thank You...*

*Your Kind cooperation in this research is much appreciated.*

**For any further comments you are most welcomed to contact the researcher**

**Directly through phone or email to:**

Sepideh Zahiri

Email: [xxx](#)

## موضوع پایان نامه: بررسی عوامل موثر در به کارگیری بازاریابی اینترنتی در شرکت های پخش ایران: یک تحقیق تجربی

آقای/خانم محترم

پرسشنامه مزبور، نظرسنجی، پیرامون بکارگیری بازاریابی اینترنتی در بین شرکت های توزیع و پخش در ایران و یکپارچه سازی آن در استراتژی های کسب و کار شرکت ها (دستیابی به استراتژی های بازاریابی از طریق به کارگیری تکنولوژی های جدید مانند اینترنت، پست الکترونیکی، موتورهای جستجو، برنامه های موبایل) می باشد. هدف از این پژوهش، بررسی تأثیر بازاریابی اینترنتی و تأثیر آن بر عملکرد بازاریابی شرکت های ایرانی در بخش توزیع است. این پرسشنامه باید توسط مدیریت / مالک ، مدیران ارشد یا مدیر فناوری اطلاعات / بازاریابی / فروش یا توسط کارکنانی که مسئول فعالیت های مربوط به بازاریابی / فناوری اطلاعات و فروش درون سازمان می باشند، پر شود.

این پرسشنامه، جزو ملزومات مربوطه، به منظور تکمیل مدرک دکترا در دانشگاه بیرمنگام سیتی انگلستان انجام می شود. سازمان شما برای این تحقیق بر اساس یک نمونه تصادفی انتخاب شده است. از شما سپاسگزارم اگر بتوانید با تکمیل این نظرسنجی من را برای رسیدن به این هدف کمک کنید. لطفاً توجه داشته باشید که این تحقیق صرفاً برای اهداف دانشگاهی و علمی است و اطلاعاتی که ارائه می دهید فقط برای تحقیق استفاده می شود. اطلاعات فراهم شده توسط شما، کمک شایانی به درک بهتر عوامل موثر بر پذیرش اینترنت بازار یابی در صنعت پخش ایران منجر می شود.

من، به عنوان محقق این پروژه ، به شما اطمینان می دهم که داده های جمع آوری شده از شما طبق قانون حفاظت از داده ها (1998) کاملاً محرمانه خواهد ماند. نام شما همراه با پاسخ های تان به هیچ عنوان آشکار نخواهد شد و هیچکس در خارج از تیم تحقیق اجازه دیدن پاسخهای شما را نخواهد داشت. فقط اعضای تیم تحقیقاتی به اطلاعاتی که داده اید دسترسی خواهند داشت و پرسشنامه تکمیل شده در دسترس هیچ کسی به غیر از تیم تحقیقاتی نخواهد بود. در پایان تحقیق در صورت درخواست، یک کپی از خلاصه ی نتایج تحقیق به سازمان های شرکت کننده ارسال میگردد. اگر خواستار یک کپی از گزارش خلاصه ی نتایج تحقیق دریافت کنید، لطفاً این درخواست را در انتهای پرسشنامه مطرح کنید. پرسشنامه ی مزبور که به این فایل پیوست شده ، ۲۰ تا ۳۰ دقیقه برای پر کردن زمان می برد. من آگاهمند حجم بالای کاری شما هستم ، اما یاری شما در پر کردن این پرسشنامه برای به نتیجه رساندن تحقیقات من بسیار مفید خواهد بود.

مشارکت شما علاوه بر ارزشمندی زیاد و کمک فراوانی که در انجام این تحقیق می کند ، یافته ها و اطلاعات بدست آمده می تواند به درک بیشتر بازاریابی اینترنتی در استراتژی های تجاری شرکت ها و افراد در این زمینه و تأثیر آن بر عملکرد بازاریابی سازمان های پخش در ایران منجر شود. در نهایت، با تکمیل این پرسشنامه، شما یکی از کسانی خواهید بود که من را در تکمیل کردن این پایان نامه یاری رسانده است که برای من بسیار ارزشمند است. من از مشارکت شما در این تحقیق قدردانی میکنم و تیم تحقیقاتی صادقانه امیدوار است که این تحقیق مورد علاقه و مفید برای شما و سازمان شما باشد.

از زمان و همکاری شما بسیار سپاسگزارم.

سپیده ظهیری  
دانشجوی دکتری دانشکده ی مالی، کار آفرینی و بازاریابی ،  
دانشگاه بیرمنگام سیتی انگلستان  
ایمیل: xxx

## موضوع پایان نامه: بررسی عوامل موثر در به کارگیری بازاریابی اینترنتی در شرکت های پخش ایران: یک تحقیق تجربی

### پرسشنامه

این پرسشنامه ساختار یافته بخشی از ابزار تحقیقاتی دکترا است که تلاش در بررسی و یافتن تأثیر پذیرش بازاریابی اینترنتی بر عملکرد بازاریابی شرکت های ایرانی در بخش توزیع را دارد. مشارکت شما در این تحقیق سهم ارزشمندی در مطالعه دکترای من خواهد داشت. تمام پاسخ های شما کاملاً محرمانه خواهد ماند. من اطلاعات شخصی شما را فقط در دوره ی انجام تحقیقاتم نگه خواهم داشت و ناشناس و محرمانه ماندن اطلاعات شما را به طور کامل تضمین می کنم. اگر می خواهید نظرات بیشتری در مورد هر یک از سوالات یا هر گونه مسائل دیگری مرتبط با این تحقیق به طور کلی بگویید، می توانید از فضای فراهم شده در انتهای پرسشنامه استفاده کنید. نظرات شما برای درک نحوه ی به کارگیری بازاریابی اینترنتی و تأثیر آن در عملکرد بازاریابی شرکت ها بسیار مهم و تأثیرگذار است. پیشاپیش از همکاری شما در این تحقیق بسیار قدردانی می کنیم.

### راهنمای پرسشنامه:

- اکثر سوالات تنها نیاز به تیک زدن دارد؛
- شما در بعضی بخش ها نیاز به پاسخگویی و نوشتن در فضای ارائه شده دارید؛
- تمام سوالات در این پرسشنامه مرتبط به شرکت شما است؛
- در مواردی که سوالاتی برای نظر شما مطرح می شود، نیاز به پاسخ های درست یا غلط نیست بلکه هدف ما درک و برداشت شما از هر عامل و متغیر است؛
- لطفاً تمام سوالات را پر کنید، حتی اگر بعضی سوالات به نظر مشابه یکدیگر می رسند؛
- تمام اطلاعاتی که ارائه می دهید، به شدت محرمانه نگهداری می شوند.

این پرسشنامه شامل 6 بخش است:

- بخش 1:** اطلاعات مربوط به سازمان.
- بخش 2:** پذیرش و به کارگیری بازاریابی اینترنتی توسط سازمان.
- بخش 3:** پیاده سازی بازاریابی اینترنتی توسط سازمان.
- بخش 4:** عملکرد بازاریابی اینترنتی در شرکت.
- بخش 5:** اطلاعات عمومی در مورد پاسخ دهندگان
- بخش 6:** اطلاعات تماس در مورد محقق و پاسخ دهنده / بخش مربوط به درخواست یک کپی از گزارش خلاصه تحقیق توسط شرکت کننده.

پرسشنامه باید توسط (لطفاً نقش خود را در سازمان تکمیل کنید): پر شود:

|                       |                                |
|-----------------------|--------------------------------|
| □ □ مدیر عامل         | □ مدیر ارشد (لطفاً مشخص کنید): |
| □ مدیر یا مالک سازمان | □ رئیس هیئت مدیره              |

### بخش 1: اطلاعات مربوط به سازمان

لطفاً به این بخش از سوالات درباره شرکت خود پاسخ دهید.

1- سازمان شما در کدام زمینه ی پخش فعالیت می کند؟

|                               |                                |                      |                            |
|-------------------------------|--------------------------------|----------------------|----------------------------|
| □ پخش مواد غذایی □ □          | □ پخش مواد غذایی و بهداشتی □ □ | □ پخش مواد بهداشتی □ | □ پخش فرآورده های نفتی □   |
| □ پخش محصولات دارویی □        | □ پخش لوازم برقی و خانگی □     | □ محصولات آرایشی □   | □ توزیع قطعات یدکی خودرو □ |
| □ پخش مواد غذایی و دارویی □ □ | □ پخش آرایشی و بهداشتی □ □     | □ توزیع باتری □      | □ توزیع قطعات یدکی خودرو □ |

2. شعبه یا سازمان شما در کدام شهر فعالیت دارد؟

۳. نحوه ی توزیع سازمان شما:  
 محلی  استانی  سراسری  سراسری و بین المللی  بین المللی

۴. فروش سالانه سازمان به صورت تقریبی (به ریال): \_\_\_\_\_

۵. لطفاً از زمان اجرای بازاریابی اینترنتی در کل رشد متوسط، درصد (%) رشد بازار را مشخص کنید:

بین ۰ تا ۲۵٪  بین ۲۶ تا ۵۰٪  بین ۵۱ تا ۷۵٪  بین ۷۶ تا ۱۰۰٪

۶. لطفاً از زمان درگیر شدن در اجرای بازاریابی اینترنتی، میانگین رشد سودآوری شرکت خود را در درصد (%) مشخص کنید:

بین ۰ تا ۲۵٪  بین ۲۶ تا ۵۰٪  بین ۵۱ تا ۷۵٪  بین ۷۶ تا ۱۰۰٪

۷. لطفاً از زمان درگیر شدن در اجرای بازاریابی اینترنتی، میانگین رشد فروش شرکت خود را در درصد (%) مشخص کنید:

بین ۰ تا ۲۵٪  بین ۲۶ تا ۵۰٪  بین ۵۱ تا ۷۵٪  بین ۷۶ تا ۱۰۰٪

۸. تقریباً، سرمایه سازمان شما چقدر است؟ \_\_\_\_\_

۹. نسبت بودجه سالانه شرکت به عنوان درصد کل بودجه شرکت صرف بازاریابی می شود؟

کمتر از ۵٪  بین ۵ تا ۱۰٪  بین ۱۱ تا ۱۵٪  بین ۱۶ تا ۲۵٪  بیشتر از ۲۵٪

۱۰. شرکت شما چند سال در اجرای بازاریابی اینترنتی مشارکت داشته است؟ (لطفاً گزینه مناسبی را که به بهترین وجه توصیف (بنگاه خود را انتخاب کنید، تیک بزنید؟

کمتر از ۵ سال  بین ۶ تا ۱۰ سال  ۱۰ سال  سال و بیشتر

۱۱. چه مدت است که این شرکت وجود دارد؟

کمتر از ۳ سال  بین ۳ تا ۵ سال  بین ۶ تا ۱۰ سال  بین ۱۱ تا ۱۵ سال  بین ۱۶ تا ۲۰ سال  ۲۱ سال  سال و بیشتر

۱۲. تعداد کارکنان سازمان شما حدوداً چند نفر است؟

کمتر از ۱۰ نفر  بین ۱۰ تا ۴۹ نفر  بین ۵۰ تا ۹۹ نفر  بین ۱۰۰ تا ۱۵۰ نفر  بین ۱۵۱ تا ۲۵۰ نفر  بیشتر از ۲۵۰ نفر

۱۳. ساختار مالکیت شرکت خود را چگونه توصیف می کنید؟

|  |   |   |
|--|---|---|
| <input type="checkbox"/> مالکیت تک نفره <input type="checkbox"/> | <input type="checkbox"/> مالکیت خانوادگی <input type="checkbox"/> | <input type="checkbox"/> سرمایه گذاری مختلط <input type="checkbox"/>      |
| <input type="checkbox"/> شراکت و شرکا <input type="checkbox"/>   | <input type="checkbox"/> مسئولیت محدود <input type="checkbox"/>   | <input type="checkbox"/> شرکت با مسئولیت نامحدود <input type="checkbox"/> |
| <input type="checkbox"/> شرکت سهامی عام <input type="checkbox"/> | <input type="checkbox"/> شرکت سهامی خاص <input type="checkbox"/>  |   |

۱۴. سازمان شما از مشاوران فناوری تکنولوژی و اطلاعات در کدام موارد زیر استفاده می کنند؟ (لطفاً گزینه های مناسب را تیک بزنید.)

|  |  |
|--|--|
| <input type="checkbox"/> سفارشی کردن نرم افزار مبتنی بر اینترنت <input type="checkbox"/>                                 | <input type="checkbox"/> نصب بسته های نرم افزاری که عملیات کسب و کار را آسانتر می کند. <input type="checkbox"/>    |
| <input type="checkbox"/> انجام ارتقاء ماهانه در نرم افزارها <input type="checkbox"/>                                     | <input type="checkbox"/> کمک در مسائل و مشکلات فنی و یا اطمینان از بهینه بودن نرم افزارها <input type="checkbox"/> |
| <input type="checkbox"/> دریافت پشتیبانی برای سایر خدمات است <input type="checkbox"/>                                    |  |
| <input type="checkbox"/> ما از مشاوران فناوری تکنولوژی و اطلاعات در سازمانمان استفاده نمی کنیم. <input type="checkbox"/> |  |

۱۵. آیا شرکت شما متخصصین، در فناوری اطلاعات را استخدام می کند؟

بلی  خیر

اگر گزینه ی "بله" را انتخاب کردید، لطفا مشخص کنید کدام نوع از کارکنان زیر را استخدام می کنید؟

□ مدیر سیستم مدیریت محتوا □ طراح وب □ تحلیلگر سیستم □ برنامه نویس □ موارد دیگر (لطفاً مشخص کنید): \_\_\_\_\_

## بخش ۲: به کارگیری بازاریابی اینترنتی توسط سازمان

سوالات در این بخش مربوط به توانایی شرکت شما، واکنش ها و اشتیاق ، برای به کارگیری بازاریابی اینترنتی برای انجام فعالیت های بازاریابی در سازمان شما است. به منظور هدف این پرسشنامه "بازاریابی اینترنتی" که به عنوان بازاریابی آنلاین نیز شناخته می شود، شامل استفاده از اینترنت و فناوری های دیجیتال مرتبط با آن، برای دستیابی به اهداف بازاریابی و حمایت از مفهوم مدرن بازاریابی است. استفاده از پست الکترونیکی و شبکه های اجتماعی یا استفاده از وبسایت برای اهداف انتشار الکترونیکی و تبلیغات هم به عنوان بازاریابی اینترنتی منظور می گردد. بازاریابی اینترنتی در این تحقیق به این معنی است که: انجام فعالیت های بازاریابی ، با استفاده از ابزارهای بازاریابی اینترنتی مانند: ایمیل، موتورهای جستجو و غیره.

سوالات این بخش برای اندازه گیری عوامل موثر بر به کارگیری بازاریابی اینترنتی سازمان شما طراحی شده است. لطفاً از بین ۱ تا ۵ ، عدد مناسب را انتخاب کنید. این اعداد نشان دهنده ی این است که تا چه حد سازمان شما انگیزه برای کارگیری بازاریابی اینترنتی به منظور اهداف بازاریابی را دارد.

| ۵             | ۴      | ۳                               | ۲      | ۱             |
|---------------|--------|---------------------------------|--------|---------------|
| کاملاً موافقم | موافقم | خنثی<br>(نه مخالفم و نه موافقم) | مخالفم | کاملاً مخالفم |

### عوامل محیطی

عوامل محیطی به معنی عواملی است که قابل کنترل نیستند و برخاسته از محیط خارج از سازمان هستند.

|   |   |   |   |   |    |   |
|---|---|---|---|---|----|---|
| ۵ | ۴ | ۳ | ۲ | ۱ | ۱  | ما معتقدیم که با توجه به ماهیت تأمین کننده ما ، اقدامات گسترده ای در زمینه فناوری اطلاعات برای دستیابی به اهداف تجاری ما ضروری است. |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۲  | ما معتقدیم که با توجه به ماهیت مشتریان ، اقدامات گسترده ای در زمینه فناوری اطلاعات برای دستیابی به اهداف تجاری ما ضروری است.        |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۳  | ما معتقدیم که با توجه به ماهیت مشتریان ، اقدامات گسترده ای در زمینه فناوری اطلاعات برای دستیابی به اهداف تجاری ما ضروری است.        |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۴  | سازمان ما دارای برنامه های بهبود کیفیت مداوم و متناسب با شرکای تجاری خود است.   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵  | شرکت های زنجیره تأمین ما یک سیستم ارتباطی و اطلاعاتی سازگار را ایجاد می کنند.   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۶  | شرکت ما در تلاش مستمر برای توسعه تکنیک های جدید بازاریابی الکترونیکی برای مشتریان خود شرکت می کند.                                  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۷  | در ایران مقاومت فرهنگی، نسبت به ایده های جدید اینترنتی وجود دارد.   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۸  | فرهنگ کار سازمان در ایران از تحقیق و توسعه حمایت می کند.  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۹  | شرکت ها و سازمان های پخش با تحولات تکنولوژی های فناوری اطلاعات و ارتباطات سازگار هستند.   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۱۰ | کمیسیون قوانین دولتی در کشور برای استفاده از بازاریابی اینترنتی وجود دارد.  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۱۱ | مشاوران فناوری اطلاعات کمک موثری به شرکت ما در کاهش فرآیندهای کسب و کار زمانبر و خسته کننده هستند.                                  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۱۲ | سازمان ما نیاز به مشاوران فناوری اطلاعات برای حل مشکلات فنی اینترنتی و نرم افزاری در زیرساخت اینترنتی شرکت دارد.                    |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۱۳ | مشاوران فناوری برای سفارشی کردن نرم افزار مبتنی بر اینترنت مفید هستند.  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۱۴ | مشاوران فناوری برای نصب بسته های نرم افزاری که عملیات کسب و کار سازمان را آسان می کند، مفید هستند.                                  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۱۵ | مشاوران فناوری اطلاعات برای ارتقاء ماهانه ی سیستم های اینترنتی و نرم افزاری شرکت مفید هستند.  |

### عوامل فردی

عوامل فردی به معنی عواملی است که قابل کنترل هستند و برخاسته از محیط داخل سازمان هستند.

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ۵ | ۴ | ۳ | ۲ | ۱ | ۱ | نحوه استفاده من از فناوری روی مشتریان من تأثیر می گذارد.  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۲ | افرادی که برای شرکت من مهم هستند (مشتریان ، تأمین کنندگان ، افراد سیستم اطلاعات ، همکاران صنعت) فکر می کنند که ما باید از بازاریابی اینترنتی استفاده کنیم.. |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۳ | به دلیل فناوری اطلاعات در 5 سال گذشته در تجارت من یک تغییر چشمگیر رخ داده است..   |

|    |  |   |   |   |   |   |
|----|--|---|---|---|---|---|
| ۴  | در طی 5 سال آینده به دلیل فناوری اطلاعات ، یک تغییر شگرف در کار من ایجاد خواهد شد                            | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۵  | بازاریابی اینترنتی پذیرش رقبا ، بر تصمیم شرکت در تصویب تأثیر می گذارد  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۶  | نحوه استفاده من از فناوری روی رقبای من تأثیر می گذارد..  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۷  | نحوه استفاده من از فن آوری بر تأمین کنندگان من تأثیر می گذارد..  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۸  | نحوه استفاده من از فن آوری بر تأمین کنندگان من تأثیر می گذارد  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۹  | من در صورت استفاده مشتریان از خدمات آنلاین نیز استفاده می کنم..  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۰ | افراد پیرامون من که از سیستم بازاریابی اینترنتی استفاده می کنند ، اعتبار بیشتری دارند.                       | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۱ | مدیریت های برتر در سازمان در حل مشکلات مربوط به سیستم IT کمک می کند.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۲ | مدیریت واقعاً مشتاق است که ما از سیستمهای جدید فناوری خوشحال هستیم..   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۳ | پشتیبانی کافی برای بازاریابی اینترنتی از مدیریت برتر وجود دارد   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۴ | مالک یا مدیر با اشتیاق از استفاده از یک وب سایت برای اهداف بازاریابی پشتیبانی می کند.                        | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۵ | من اطمینان دارم که مدیریت اطمینان دارد که با استفاده از بازاریابی اینترنتی چه مزایایی را می توان به دست آورد | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۶ | مدیریت بیشترین کمکها و منابع لازم را برای استفاده سریع سیستمها به ما ارائه داده است                          | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۷ | ما می توانستیم بازاریابی اینترنتی را با تلاش بسیار کمی اتخاذ کنیم  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۸ | کارکنان نیاز به آموزش دارند.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۹ | برای استفاده از چنین سیستمی به آموزش نیاز دارم   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۰ | یادگیری کار با بازاریابی اینترنتی برای من آسان خواهد بود.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۱ | یادگیری تعامل با وب سایت برای من آسان خواهد بود.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۲ | تعامل با وب سایت این خرده فروش نیازی به تلاش ذهنی زیادی ندارد.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۳ | من می دانم که بازاریابی اینترنتی انعطاف پذیر برای تعامل است.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۴ | من استفاده از بازاریابی اینترنتی را آسان می دانم.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۵ | آسان بودن مهارت در استفاده از بازاریابی اینترنتی برای من آسان خواهد بود.                                     | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۶ | تعامل من با بازاریابی اینترنتی واضح و قابل درک خواهد بود.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۷ | اجرای بازاریابی اینترنتی اهداف تجاری ما را برآورده می کند.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۸ | هر عملکردی در شرکت من توسط فناوری اطلاعات پشتیبانی می شود.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۹ | مسئولیت کار من متناسب با استفاده از رایانه شخصی است  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۰ | استفاده از بازاریابی اینترنتی می تواند در سبک کار من باشد  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۱ | استفاده از بازاریابی مدت زمان لازم برای انجام مسئولیتهای مهم شغلی را کوتاه می کند.                           | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۲ | بازاریابی اینترنتی مناسب مشتریان و تأمین کنندگان ما است.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۳ | بازاریابی اینترنتی متناسب با شیوه انجام تجارت است.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۴ | تجارت ما با تمام جوانب بازاریابی اینترنتی سازگار است   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۵ | اینترنت با تمام جوانب کار سازمان سازگار است  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۶ | تحولات فن آوری فرصت های بزرگی را در صنعت ما ایجاد می کند.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۷ | استفاده از بازاریابی مدت زمان لازم برای انجام مسئولیتهای مهم شغلی را کوتاه می کند.                           | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۸ | اتخاذ بازاریابی اینترنتی در طولانی مدت کاهش هزینه های فعالیت های تجاری ما.                                   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳۹ | پذیرش بازاریابی اینترنتی در طولانی مدت افزایش فروش.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۴۰ | اتخاذ بازاریابی اینترنتی در مشارکت تعاونی پشتیبانی پشتیبانی بلند مدت در صنعت.                                | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۴۱ | پیش بینی اینکه فناوری در صنعت ما در 2 تا 3 سال آینده کجا خواهد بود بسیار دشوار است.                          | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۴۲ | پذیرش بازاریابی اینترنتی فرصتهای بزرگی را در سازمان ما ایجاد می کند.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۴۳ | تعداد زیادی از ایده های جدید خدمات هر چند پیشرفت تکنولوژی در صنعت ما امکان پذیر است.                         | ۱ | ۲ | ۳ | ۴ | ۵ |

### عوامل سازمانی

عوامل سازمانی به معنی عواملی است که قابل کنترل هستند و برخاسته از محیط داخل سازمان هستند.

|   |  |   |   |   |   |   |
|---|--|---|---|---|---|---|
| ۱ | سازمان ما درک می کند که بازاریابی اینترنتی با فرهنگ شرکت سازگار است..              | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲ | من فکر می کنم بازاریابی اینترنتی با جنبه ها و ارزش فرهنگی من سازگار است..          | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳ | حس اینجاست که یادگیری کارمندان یک سرمایه گذاری است ، نه یک هزینه                   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۴ | مدیران اساساً موافق هستند که توانایی یادگیری سازمان ما ، کلید مزیت رقابتی ما است.. | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۵ | ارزشهای اساسی این سازمان شامل یادگیری به عنوان کلید پیشرفت است..                   | ۱ | ۲ | ۳ | ۴ | ۵ |

|   |   |   |   |   |  |    |
|---|---|---|---|---|--|----|
| ۵ | ۴ | ۳ | ۲ | ۱ | شرکت ما با اتصالات شبکه داخلی و خارجی که شرکت را به شعب دیگر آن متصل می کند کاملاً رایانه ای است..                           | ۶  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما اتصال به اینترنت پر سرعت و سریع داریم.  | ۷  |
| ۵ | ۴ | ۳ | ۲ | ۱ | . اکثر کارمندان سازمان دارای سواد ابتکاری فناوری اطلاعات و ارتباطات هستند.   | ۸  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما از منابع انسانی ماهر کافی برای اجرای بازاریابی اینترنتی برخوردار هستیم..  | ۹  |
| ۵ | ۴ | ۳ | ۲ | ۱ | شرکت ما فرد (های) دارد که قادر به طراحی و اجرای بخش های مختلفی از روند ارزیابی از اجرای بازاریابی اینترنتی است.              | ۱۰ |
| ۵ | ۴ | ۳ | ۲ | ۱ | محیط کار ، کارکنان فناوری اطلاعات و ارتباطات را ترغیب به توسعه توانایی های خود می کند.                                       | ۱۱ |
| ۵ | ۴ | ۳ | ۲ | ۱ | بیشتر کارمندان ما پذیرش نامحدودی در رایانه های شخصی دارند..  | ۱۲ |
| ۵ | ۴ | ۳ | ۲ | ۱ | یک مرکز پشتیبانی (به عنوان مثال مرکز اطلاعات ، میز راهنما) برای کمک به مشکلات موجود است.                                     | ۱۳ |
| ۵ | ۴ | ۳ | ۲ | ۱ | بیشتر کارمندان ما از فناوری اطلاعات و ارتباطات آگاه هستند..  | ۱۴ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما دائماً در مورد نرم افزارهای جدید به روز می شویم که می تواند به ما در استفاده موثرتر از رایانه کمک کند..                   | ۱۵ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما سازمان ما از منابع مالی برای اتخاذ بازاریابی اینترنتی برخوردار است..  | ۱۶ |
| ۵ | ۴ | ۳ | ۲ | ۱ | شرکت ما به خوبی به رقبا در صنعت و هرگونه تغییر دیگر در محیط کسب و کار پاسخ می دهد.   | ۱۷ |
| ۵ | ۴ | ۳ | ۲ | ۱ | در شرکت ما ، کارکنان به راحتی هرگونه تغییر در نقش های سازمانی را می پذیرند..   | ۱۸ |
| ۵ | ۴ | ۳ | ۲ | ۱ | در شرکت من ، کارمندان به راحتی هرگونه تغییر در برنامه های نرم افزاری که استفاده می کنند را می پذیرند..                       | ۱۹ |
| ۵ | ۴ | ۳ | ۲ | ۱ | شرکت ما قادر است خود را با تغییرات سریع فناوری سازگار کند  | ۲۰ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما تمایل جدی داریم که در تصویب فناوری جدید از دیگران جلوتر باشیم.  | ۲۱ |
| ۵ | ۴ | ۳ | ۲ | ۱ | اینترنت و برنامه های کاربردی آن برای بازاریابی در سازمان من بسیار مورد استفاده قرار می گیرد.                                 | ۲۲ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما در تکامل خدمات جدید تجارت از طریق بازاریابی اینترنتی کار خوبی می کنیم.  | ۲۳ |
| ۵ | ۴ | ۳ | ۲ | ۱ | اتخاذ فن آوری جدید به ما این امکان را می دهد تا محصولات سازمان خود را بصورت آنلاین و آفلاین توزیع کنیم..                     | ۲۴ |
| ۵ | ۴ | ۳ | ۲ | ۱ | مانند تبلیغات از طریق اینترنت فرصت بیشتری برای سهم بازار P.R فعالیت های در شرکت فراهم می کند..                               | ۲۵ |
| ۵ | ۴ | ۳ | ۲ | ۱ | در این شرکت ، فقط تصمیمات کلیدی استراتژیک باید توسط مدیریت ارشد تأیید شود..  | ۲۶ |
| ۵ | ۴ | ۳ | ۲ | ۱ | مشکلات کوچک توسط کارکنان در سطح عملیاتی قابل حل است..  | ۲۷ |
| ۵ | ۴ | ۳ | ۲ | ۱ | در شرکت اگر هر یک از کارمندان بخواهند تصمیم خود را بگیرند تشویق می شود..   | ۲۸ |
| ۵ | ۴ | ۳ | ۲ | ۱ | هر موقعیتی اتفاق می افتد ، ما فرایندهایی را برای پیگیری مقابله با اوضاع داریم..  | ۲۹ |
| ۵ | ۴ | ۳ | ۲ | ۱ | هر کارمند وظیفه خاصی برای انجام دادن دارد..  | ۳۰ |
| ۵ | ۴ | ۳ | ۲ | ۱ | سازمان ما قوانین بسیار سختی برای اتخاذ و سرمایه گذاری در تکنولوژی های جدید دارد.   | ۳۱ |
| ۵ | ۴ | ۳ | ۲ | ۱ | سازمان ما آیین نامه ای را برای پشتیبانی از فناوری بازاریابی اینترنتی در شرکت فراهم کرده است..                                | ۳۲ |
| ۵ | ۴ | ۳ | ۲ | ۱ | شرکت ما دارای قوانین و رویه های مربوط به سیستم های فناوری جدید است و بیشتر اوقات به صورت کتبی به خوبی تعریف می شوند..        | ۳۳ |
| ۵ | ۴ | ۳ | ۲ | ۱ | سازمان ما قوانینی را وضع می کند که از حق حریم خصوصی و امنیت اطلاعات شخصی محافظت می کند..                                     | ۳۴ |
| ۵ | ۴ | ۳ | ۲ | ۱ | مقررات اصلی ترین مانع برای بازاریابی اینترنتی در شرکت ما (قانون معاملات الکترونیکی ، قانون حمایت از مصرف کننده و غیره) است.. | ۳۵ |
| ۵ | ۴ | ۳ | ۲ | ۱ | کارمندان شرکت ما دانش کافی در مورد فناوری اطلاعات دارند..  | ۳۶ |
| ۵ | ۴ | ۳ | ۲ | ۱ | بیشتر کارمندان شرکت ما با ابزارهای فناوری اطلاعات تجربه می کنند.   | ۳۷ |
| ۵ | ۴ | ۳ | ۲ | ۱ | کارکنان ما مهارت استفاده از ابزارهای بازاریابی اینترنتی را دارند..   | ۳۸ |
| ۵ | ۴ | ۳ | ۲ | ۱ | شرکت ما دارای کادر پشتیبانی فنی ماهر است   | ۳۹ |
| ۵ | ۴ | ۳ | ۲ | ۱ | شرکت ما دارای کارکنان پشتیبانی فنی توانمند است.  | ۴۰ |
| ۵ | ۴ | ۳ | ۲ | ۱ | کارمندان شرکت ما با فناوری اطلاعات تجربه می کنند   | ۴۱ |
| ۵ | ۴ | ۳ | ۲ | ۱ | مدیر ، برای اجرای بازاریابی اینترنتی دانش IT داشته باشید..   | ۴۲ |

|    |  |   |   |   |   |   |
|----|--|---|---|---|---|---|
| ۴۳ | مدیریت مهارت استفاده از ابزارهای بازاریابی اینترنتی را دارد.           | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۴۴ | مدیریت ارشد از وب سایت و عملکردهای فناوری نسبت به بازاریابی آگاه است.. | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۴۵ | مدیریت همیشه ایده های جدید و خلاقانه فناوری اطلاعات دارد..             | ۱ | ۲ | ۳ | ۴ | ۵ |

### عوامل فنی

عوامل فنی به معنی عواملی است که غیر قابل کنترل هستند و برخاسته از محیط خارج سازمان هستند.

|    |   |   |   |   |   |   |
|----|---|---|---|---|---|---|
| ۱  | پایداری در زیرساخت فناوری اطلاعات، انتخاب ما را برای رسیدن به مشتریان یا دیگر مسایل کسب و کار گسترش می دهد.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲  | دسترسی به اینترنت و دیگر امکانات فناوری اطلاعات در قیمت های مناسب برای شرکت ما می باشد.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۳  | چالشهایی برای قدرت پهنای باند و سرعت اینترنت در ایران وجود دارد.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۴  | سیستم سازمان ما مشکل خاموش شدن و قطعی ندارد.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۵  | خدمات آنلاین برای مشتریان در همه حال در دسترس هست.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۶  | کمبود سرعت و کیفیت ضعیف زیرساخت های مخابراتی بر کسب و کار ما تاثیر منفی می گذارد.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۷  | این سیستم بازاریابی اینترنتی، دسترسی مداوم به منابع دیگر را فراهم می کند.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۸  | سرعت آهسته ی اینترنت ما را در استفاده از بازاریابی اینترنت به صورت بهینه و گسترده محدود می کند.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۹  | اجرای بازاریابی اینترنتی از مباحث منفی جلوگیری می کند (به عنوان مثال هزینه های (بالا ، زمان ، گرفتن روش های سنتی و غیره                                 | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۰ | . مالک یا مدیر منابع کافی برای توسعه یک وب سایت اختصاص داده اند.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۱ | هزینه های بالای نگهداری یک وب سایت (به روزرسانی ، نصب نرم افزار جدید و به .. روز کردن اطلاعات) بر تصمیم ما برای اتخاذ بازاریابی اینترنتی تاثیر می گذارد | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۲ | .. هزینه اولیه تهیه یک وب سایت برای شرکت ما بالاست  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۳ | استفاده از بازاریابی اینترنتی این شرکت را قادر می سازد در هر زمان معاملات آنلاین را انجام دهد.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۴ | استفاده از نمودار کارشناسی ارشد در شغل من به من امکان می دهد تا سریعتر وظایف .. خود را انجام دهم  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۵ | من معتقدم که استفاده از بازاریابی اینترنتی به من این امکان را می دهد تا تعامل های داخلی را به طور مؤثر مدیریت کنم.                                      | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۶ | بازاریابی اینترنتی را در کار خود مفید می دانم.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۷ | مدیریت ارشد از مزایای استفاده از بازاریابی اینترنتی برای این شرکت آگاه است.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۸ | من معتقدم که استفاده از بازاریابی اینترنتی به من این امکان را می دهد تا تعامل های خارجی را به طور مؤثر مدیریت کنم.                                      | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۱۹ | سازمان ما درک می کند که بازاریابی اینترنتی با شیوه های کاری ارجح شرکت سازگار است.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۰ | شرکت من نسبت به قبل از استفاده از اینترنت اطلاعات بیشتری را با مشتریان اینترنتی تبادل می کند.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۱ | بازاریابی اینترنتی با ارزش ها ، اعتقادات و نیازهای تجاری شرکت من مطابقت دارد.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۲ | بازاریابی اینترنتی با زیرساختهای فناوری موجود ما سازگار خواهد بود.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۳ | استفاده از بازاریابی اینترنتی باعث می شود تا شرکت من بتواند با سرعت بیشتری وظایف خاص را انجام دهد.  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۴ | استفاده از بازاریابی اینترنتی در شغل من باعث افزایش بهره وری من می شود.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۵ | استفاده از اینترنت باعث بهبود کیفیت فعالیتهای بازاریابی می شود  | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۶ | اینترنت جنبه های مهم کار من را پشتیبانی می کند.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۷ | استفاده از اینترنت کنترل بیشتری بر کار من به من می دهد.   | ۱ | ۲ | ۳ | ۴ | ۵ |
| ۲۸ | استفاده از اینترنت به من این امکان را می دهد تا کارهای بازاریابی بیشتری را نسبت به آنچه در غیر این صورت ممکن است انجام دهم.                             | ۱ | ۲ | ۳ | ۴ | ۵ |

|   |   |   |   |   |  |    |
|---|---|---|---|---|--|----|
| ۵ | ۴ | ۳ | ۲ | ۱ | استفاده از بازاریابی اینترنتی عملکرد شغلی من را بهبود می بخشد.           | ۲۹ |
| ۵ | ۴ | ۳ | ۲ | ۱ | بازاریابی اینترنتی را در شغل خود مفید می دانم.                           | ۳۰ |
| ۵ | ۴ | ۳ | ۲ | ۱ | استفاده از بازاریابی اینترنتی انجام کار من را آسانتر می کند.             | ۳۱ |
| ۵ | ۴ | ۳ | ۲ | ۱ | استفاده از بازاریابی اینترنتی ، اثربخشی من در مورد کار را افزایش می دهد. | ۳۲ |

### بخش ۳: پذیرش و به کارگیری بازاریابی اینترنتی توسط سازمان

این بخش مربوط به واکنش شما و تمایل شما به گسترش استراتژی های بازاریابی شرکت از طریق پذیرش و به کارگیری بازاریابی اینترنتی است. لطفاً مقیاس مناسب را علامت بزنید تا نشان دهد که تا چه حد موارد زیر شما را برای به کارگیری بازاریابی اینترنتی برای اهداف بازاریابی انگیزه می دهد:

| ۵             | ۴      | ۳                               | ۲      | ۱             |  |
|---------------|--------|---------------------------------|--------|---------------|--|
| کاملاً موافقم | موافقم | خنثی<br>(نه مخالفم و نه موافقم) | مخالفم | کاملاً مخالفم |  |

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ۵ | ۴ | ۳ | ۲ | ۱ | بازاریابی اینترنتی عملیات کاری ما را ساده تر می کند.  | ۱ |
| ۵ | ۴ | ۳ | ۲ | ۱ | بازاریابی اینترنتی باعث تسهیل تبادل ایده های مبتکرانه در میان کارکنان می شود. (به عنوان مثال، کمک به ارتباطهای درونی شرکت، مبادله ایده های بیشتر و معاملات تجاری) . | ۲ |
| ۵ | ۴ | ۳ | ۲ | ۱ | بازاریابی اینترنتی باعث تسهیل بازده عملیاتی شرکت، فارغ از نقص فنی و تاخیر می شود.   | ۳ |
| ۵ | ۴ | ۳ | ۲ | ۱ | بازاریابی اینترنتی به ما امکان می دهد که اندازه ی بازار را افزایش دهیم.   | ۴ |
| ۵ | ۴ | ۳ | ۲ | ۱ | با به کارگیری بازاریابی اینترنتی، کارهای مربوط به فناوری و ارتباطات در سازمان سریعتر و دقیق تر انجام می شود.  | ۵ |
| ۵ | ۴ | ۳ | ۲ | ۱ | به کارگیری بازاریابی اینترنتی به ما اجازه می دهد تا محصولات را به طیف گسترده ای از جمعیت با هزینه ای کمتر تحویل دهیم.   | ۶ |
| ۵ | ۴ | ۳ | ۲ | ۱ | بازاریابی اینترنتی باعث تسهیل تبادل ایده های مرتبط با فناوری اطلاعات در میان کارمندان می شود.   | ۷ |

سوالات در این قسمت مربوط به پذیرش و به کارگیری بازاریابی اینترنتی شرکت شما (از لحاظ ابزار و سطح اینترنت) است. لطفاً بهترین پاسخ را که پذیرش و به کارگیری بازاریابی اینترنتی شرکت شما را توضیح می دهد، انتخاب کنید. لطفاً عدد مناسب را که سطح پذیرش بازاریابی اینترنتی در شرکت شما را نشان می دهد علامت بزنید:

| ۵             | ۴      | ۳                               | ۲      | ۱             |  |
|---------------|--------|---------------------------------|--------|---------------|--|
| کاملاً موافقم | موافقم | خنثی<br>(نه مخالفم و نه موافقم) | مخالفم | کاملاً مخالفم |  |

#### سازمان ما:

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ۵ | ۴ | ۳ | ۲ | ۱ | روش های سنتی را برای اجرای کسب و کار به کار میگیرم ما از منابع بازاریابی اینترنتی (مانند وب سایت و ایمیل) برای ارتباط با مشتریان / تهیه کنندگان استفاده می کنیم | ۱ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما تجارت را بیشتر بر اساس روشهای سنتی همراه با برخی استراتژی های بازاریابی اینترنتی انجام می دهیم..   | ۲ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما برای اطلاع رسانی به مشتریان با اطلاعات کلی شرکت ، وب سایت آموزنده داریم..  | ۳ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما از وب سایت خود برای فعالیتهایی مانند دریافت سوالات مشتری درباره کالاها و خدمات جدید شرکت ، قیمت آنها و سفارش مشتری دریافت می کنیم..                          | ۴ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما از وب سایت خود برای فعالیت های معاملاتی مانند فروش محصولات ، پرداخت های آنلاین استفاده می کنیم..   | ۵ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما از وب سایت خود با ویژگی های اضافه شده برای بازاریابی / فروش تعاملی ، انجمن های آنلاین و سفارشات آنلاین و گاه پرداخت های آنلاین استفاده می کنیم..             | ۶ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما برای انجام معاملات تجاری از منابع بازاریابی اینترنتی استفاده می کنیم (مثلاً فروش محصولات و پذیرش پرداخت از طریق وب سایت)..                                   | ۷ |

|   |   |   |   |   |   |    |
|---|---|---|---|---|---|----|
| ۵ | ۴ | ۳ | ۲ | ۱ | ما از وب سایت خود استفاده می کنیم که با تامین کنندگان ، مشتریان و سایر سیستمهای پشتیبان یکپارچه شده است و اجازه می دهد بیشتر معاملات تجاری به صورت الکترونیکی انجام شود                 | ۸  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما برای تبلیغ محصولات / خدمات خود از منابع بازاریابی اینترنتی (مانند ایمیل ، موتورهای جستجو) استفاده می کنیم..  | ۹  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما نرم افزارهای مشتری را برای مشتریان / تامین کنندگان که برای معاملات تجاری از آنها استفاده می کنیم (مثلاً گرفتن سفارش ، فروش محصولات و پذیرش ..پرداخت از طریق وب سایت) سفارشی کرده ایم | ۱۰ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما بانک اطلاعاتی مشتری را که استفاده می کنیم برای همه کارمندان داخلی ، شرکا یا سایر افراد خارج از شرکت (شعب دیگر) در هر مکانی که حضور فیزیکی نداشته باشیم در دسترس داریم.               | ۱۱ |

### بخش ۳: پیاده سازی بازاریابی اینترنتی توسط سازمان.

لطفاً از بین ۱ تا ۵ ، عدد مناسب را انتخاب کنید.

| ۵             | ۴      | ۳                              | ۲      | ۱             |
|---------------|--------|--------------------------------|--------|---------------|
| کاملاً موافقم | موافقم | خنثی<br>(نه مخالف و نه موافقم) | مخالفم | کاملاً مخالفم |

#### سازمان ما:

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ۵ | ۴ | ۳ | ۲ | ۱ | ما برای اجرای استراتژی های بازاریابی مان از بازاریابی ایمیلی استفاده می کنیم.           | ۱ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما از بازاریابی موتورهای جستجو برای بهینه سازی وبسایت استفاده می کنیم.                  | ۲ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما برای اجرای استراتژیهای تجاری سازمان از بازاریابی رسانه های اجتماعی استفاده می کنیم.. | ۳ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما از بازاریابی اینترنت برای فعالیت های بازاریابی مانند تبلیغات استفاده می کنیم..       | ۴ |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما از بازاریابی موبایل برای انجام فعالیتهای بازاریابی استفاده می کنیم..                 | ۵ |
| ۵ | ۴ | ۳ | ۲ | ۱ | فعالتهای بازاریابی سازمان ما بسیار به برنامه بازاریابی اینترنتی بستگی دارد..            | ۶ |

۱. وب سایت شرکت ما:

استاتیک است  تعاملی (مانند ویدیوها، عناصر جستجو و غیره) است  دینامیک

۲. سازمان شما چند عدد از طرح های بازاریابی اینترنتی از جمله سفارش آنلاین، پرداخت آنلاین، خدمات مشتری، تحقیق بازار و محصول (از جمله بازخورد مشتریان، تراکنش، ارسال سفارشات به تامین کنندگان، دریافت سفارشات از مشتریان، ارتباطات، درون و ارتباطات خارجی با دیگر شرکت ها از جمله پست الکترونیکی) را برای اجرا در سال آینده برنامه ریزی کرده است؟  
یک  بیشتر از یک  برنامه ای نداریم

➤ از هر یک از این ابزار بازاریابی، چند درصد در سازمان شما به کارگرفته شده است؟

|                                     | برای فعالیت های بازاریابی شرکت ما به ...% اعمال کنید |     |     |     |      |
|-------------------------------------|--|-----|-----|-----|------|
|                                     | ۰%   | ۲۵% | ۵۰% | ۷۵% | ۱۰۰% |
| بازاریابی ایمیلی                    |  |     |     |     |      |
| بازاریابی اینترنت                   |  |     |     |     |      |
| بازاریابی از طریق رسانه های اجتماعی |  |     |     |     |      |
| بازاریابی موتور جستجو               |  |     |     |     |      |
| بازاریابی موبایل                    |  |     |     |     |      |

### بخش ۴: عملکرد بازاریابی اینترنتی در شرکت

سوالات در این بخش مربوط به اندازه گیری عملکرد بازاریابی اینترنتی سازمان شما و همچنین تعیین تأثیر پذیرش بازاریابی اینترنتی بر عملکرد بازاریابی شرکت شما می باشد. لطفاً میزان رضایت شما در مورد عملکرد مالی و غیر مالی شرکت را به عنوان نتیجه به کارگیری بازاریابی اینترنتی مشخص کنید. (دایره ای که رضایت شما را نشان می دهد).

الف: لطفاً عددی را نشان دهید که نشاندهنده این باشد که تا چه حد بیانیه زیر برای سازمان شما قابل اجرا است.

| ۵             | ۴      | ۳                               | ۲      | ۱             |
|---------------|--------|---------------------------------|--------|---------------|
| کاملاً موافقم | موافقم | خنثی<br>(نه مخالفم و نه موافقم) | مخالفم | کاملاً مخالفم |

|   |   |   |   |   |  |
|---|---|---|---|---|--|
| ۵ | ۴ | ۳ | ۲ | ۱ | در سازمان ما ، معیارهای عملکرد مالی، برای ارزیابی بازاریابی اینترنتی مان مناسب است.                          |
| ۵ | ۴ | ۳ | ۲ | ۱ | در سازمان ما ، اقدامات عملکرد غیر مالی برای ارزیابی بازاریابی اینترنتی ما کافی است..                         |
| ۵ | ۴ | ۳ | ۲ | ۱ | ما قصد اندازه گیری عملکرد بازاریابی اینترنتی را نداریم؛ اما در آینده نزدیک قصد انجام این کار را خواهیم داشت. |

ب: سوالات زیر تأثیرات اجرای بازاریابی اینترنتی بر عملکرد بازاریابی شرکت شما را نشان می دهد. بازاریابی اینترنتی عملکرد بازاریابی سازمان شما را ۱- در حال حاضر و ۲- در آینده به صورت مثبت تحت تأثیر قرار می دهد. تا چه اندازه با این جمله موافقت؟ (لطفاً گزینه ی مناسب را که نشان دهنده ی درجه ی رضایت شما را تیک بزنید). توجه داشته باشید که عدد ۵ و ۴ نشان دهنده ی موافق بودن شما با تأثیر مثبت هر معیار بر عملکرد بازاریابی سازمان و عدد ۱ و ۲ نشان دهنده ی تأثیر منفی هر معیار بر عملکرد بازاریابی سازمان و عدم موافقت شما با تأثیر مثبت آن است و عدد ۳ نشان دهنده ی خنثی و بی تأثیر بودن معیار است.

لطفاً از بین ۱ تا ۵ ، عدد مناسب را انتخاب کنید.

| ۵             | ۴      | ۳                               | ۲      | ۱             |
|---------------|--------|---------------------------------|--------|---------------|
| کاملاً موافقم | موافقم | خنثی<br>(نه مخالفم و نه موافقم) | مخالفم | کاملاً مخالفم |

| در آینده |   |   |   |   | در حال حاضر |   |   |   |   | معیارها  |
|----------|---|---|---|---|-------------|---|---|---|---|--|
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | رشد سودآوری شرکت                                     |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | حاشیه سود ناخالص                                     |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | سود خالص از عملیات جدید                              |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | افزایش بازده سرمایه گذاری بازاریابی                  |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | افزایش رشد فروش                                      |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | ایجاد بازارهای جدید و ورود آسان تر به بازار جدید     |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | افزایش سهم بازار محصولات یا خدمات شما                |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | تغییر در سفارش مشتری                                 |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | سفارش و خرید آنلاین و دسترسی شبانه روزی برای سفارشات |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | بالا رفتن دقت سفارش                                  |
| ۵        | ۴ | ۳ | ۲ | ۱ | ۵           | ۴ | ۳ | ۲ | ۱ | بهبود فرآیند   |

|   |   |   |   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|---|---|---|--|
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | ارتقاء ارزش خدمات / محصول                                    |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | بهبود خدمات مشتری  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | سرویس جدید   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | افزایش دسترسی به مشتریان بیشتر                               |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | ارتباط با تامین کنندگان را پشتیبانی می کند                   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | توانایی رقابت را افزایش دهید                                 |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | حمایت از مشارکت تعاونی در صنعت                               |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | به منظور افزایش سهم بازار، همکاری بین شرکت ها را بهبود بخشد  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | در دسترس بودن متخصصان فناوری بدون توجه به محل فیزیکی         |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | بهبود ارتباطات   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | ارتباط سریع تر، انعطاف پذیر تر و تحویل سریعتر از تامین کننده |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | مشتریان جدید   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | وفاداری بیشتر مشتری  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | کاهش هزینه های روش های بازاریابی سنتی                        |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | قابلیت و بالا رفتن اطمینان تحویل                             |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | اطلاعات بهبود یافته  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | آگاهی بهتر از محیط کسب و کار                                 |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | دانش فناوری  |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | ایده های جدید در مورد خدمات فن آوری جدید                     |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | ارتقاء توانایی های مدیریتی                                   |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | از بین رفتن تاخیر در زمان سفارش حذف مشکلات فنی               |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | ارتباط داخل شرکت را بهبود می بخشد                            |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | رفع محدودیت های جغرافیایی و بازار / فروش در سراسر کشور       |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | کاهش زمان در انجام خدمات                                     |
| ۵ | ۴ | ۳ | ۲ | ۱ | ۵ | ۴ | ۳ | ۲ | ۱ | بهبود تصویر برند و شهرت شرکت                                 |

|   |   |   |   |   |  |   |   |   |   |   |                            |
|---|---|---|---|---|--|---|---|---|---|---|----------------------------|
| ۵ | ۴ | ۳ | ۲ | ۱ |  | ۵ | ۴ | ۳ | ۲ | ۱ | موقعیت کلی در بخش توزیع    |
| ۵ | ۴ | ۳ | ۲ | ۱ |  | ۵ | ۴ | ۳ | ۲ | ۱ | طول عمر و پایداری در بازار |

### بخش ۵: عملکرد بازاریابی اینترنتی در شرکت

لطفاً گزینه مناسب را علامت بزنید.

۱. شغل شما در سازمان چیست؟ \_\_\_\_\_

۲. رده سنی:

|                                     |   |   |   |                                       |
|-------------------------------------|---|---|---|---------------------------------------|
| <input type="checkbox"/> زیر ۳۰ سال | <input type="checkbox"/> بین ۳۰ تا ۴۰ سال | <input type="checkbox"/> بین ۴۱ تا ۵۰ سال | <input type="checkbox"/> بین ۵۱ تا ۶۰ سال | <input type="checkbox"/> بالای ۶۰ سال |
|-------------------------------------|---|---|---|---------------------------------------|

۳. سطح تحصیلات:

|  |                                      |  |                                     |  |
|--|--------------------------------------|--|-------------------------------------|--|
| <input type="checkbox"/> مدرک<br><input type="checkbox"/> زیر لیسانس | <input type="checkbox"/> مدرک لیسانس | <input type="checkbox"/> مدرک فوق لیسانس | <input type="checkbox"/> مدرک دکترا | <input type="checkbox"/> دیگری<br>(لطفاً مشخص کنید): |
|--|--------------------------------------|--|-------------------------------------|--|

۴. چه مدت در این شرکت در حال کار هستید؟  
 زیر ۵ سال     بین ۶ تا ۱۰ سال     بیشتر از ۱۰ سال

۵. آیا شما در به کارگیری بازاریابی اینترنتی مشارکت داشتید؟ خیر  بلی

اگر بلی، پست شما چیست یا چه بود؟ \_\_\_\_\_

آیا این پست: در همین سازمان بود  در سازمان دیگری بود

### بخش ۶: اطلاعات تماس در مورد محقق و پاسخ دهنده / و بخش مربوط به درخواست یک کپی از گزارش خلاصه تحقیق

از وقت و تلاش شما بسیار متشکریم. همکاری شما در این تحقیق بسیار ارزشمند است. نتایج و یافته های اصلی این تحقیق در صورت درخواست بدون هیچ هزینه ای با سازمان شرکت کننده به اشتراک گذاشته میشود. اگر می خواهید یک کپی از گزارش خلاصه نتایج مطالعه داشته باشید، لطفاً بخش زیر را تکمیل کنید.

نام شرکت کننده: .....

شغل: .....

نام سازمان: .....

آدرس سازمان: .....

.....

کد پستی: .....

تلفن تماس: ..... تلفن همراه: .....

آدرس ایمیل: .....

آیا می خواهید از نتایج این تحقیق گزارشی داشته باشید؟ خیر  بلی

لطفاً اگر نظر یا موردی در زمینه بازاریابی اینترنتی دارید که در شرکت های توزیع برای شما مهم است، لطفاً از این بخش برای نظرات خود استفاده کنید.

متشکرم...

همکاری شما در این تحقیق بسیار ارزشمند است.

Appendix 9: Interview Consent Form

**CONSENT FORM**

**Full Title of Project:** "Determinants of Distribution Firms' Decision to Adopt E-Marketing and The Impact upon Marketing Performance: An Empirical Study of Iranian Firms."

**Name, Position and Contact Address of Researcher:**

**Sepideh Zahiri**

PhD Researcher

School of Business, Law and Social Sciences

Birmingham City University

Email:xxx

**Please Initial box**

1. I confirm I have read and understand the information sheet for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason.
3. I agree to take part in the above study.

**Please Initial box**

4. I agree to the interview being audio recorded.
5. I agree to the use of anonymised quotes in publications.
6. I agree that my data gathered on this study may be stored (after it has been anonymised) in a specialist data centre and may be used for future research.

|                     |       |           |
|---------------------|-------|-----------|
| _____               | _____ | _____     |
| Name of Participant | Date  | Signature |
| _____               | _____ | _____     |
| Name of Researcher  | Date  | Signature |

## **PARTICIPANT INFORMATION SHEET**

### **Purpose of the Research**

The purpose of this research is to investigate the different factors influencing the adoption of E-Marketing among distribution companies to develop a new framework in utilisation of such phenomena in Iran. To explore the different forms, levels and tools of E-Marketing, the study will attempt to explore the different factors generated from theories of new technology adoption. The study also attempts to investigate the relationship between influencing determinants of E-Marketing adoption and the level and extent of utilisation of this adoption among Iranian distribution companies. It aims to develop a theoretical model that can help to understand and interpret these relationships and seeks to evaluate the potential of E-Marketing for distribution companies in Iran.

### **Participant Involvement**

Participating in this study will include an interview of which will be 45-60 minutes in duration. Questions will be semi-structured in the first phase to obtain information from participants upon the influencing factors that have been found in previous studies. Open-ended questions will then be deployed to investigate factors that have not been studied in previous researches such as variable related to unethical issues. With your permission, I may follow-up the interview with additional clarifying questions.

### **Collected material**

Once interviews have been completed, they will be transcribed and coded by Nvivo software for analysis. Interviews will be anonymously represented in the research, publications, reports and publications. No legal names will be used. If interviewees make a statement which is directly quoted in any research reports, papers, or thesis, pseudo names will be used. The interviews and transcript will be seen by the researcher and the research supervisors. The full reports and any subsequent tables, charts or other data generated material will be accessible by request.

### **Potential risks**

Please note: this research is committed for analysing communication strategies generally and not accessing trade secrets and/ or intellectual property. Any concerns about intellectual property rights or trade secrets should be openly stated in the interview.

### **Participants Opt-out**

As a participant, you may opt-out of the study at any time before or after the interview.

**For more information**

Please contact the primary researcher Sepideh Zahiri at [xxx](#)

**Information disclosure**

All information will be disclosing at the beginning of the interview

## Appendix 11 : Participant Invitation Letter



Date :

### **To whom it may concern**

Dear Mr/ Mrs,

**Sample invitation to participate in the research project titled:** "Determinants of Distribution Firms' Decision to Adopt E-Marketing and The Impact upon Marketing Performance: An Empirical Study of Iranian Firms."

I am conducting interviews as part of PhD research study to increase my understanding of factors influencing Iranian distribution companies for adoption of E-Marketing and integrate it within companies' business strategies. As a practitioner in this field, you are in an ideal position to give me valuable first-hand information from your own perspective.

The interviews take around 45-60 minutes and will be conducted in an informal way. I am basically trying to capture your opinions and perspectives on being a practitioner in adoption of E-Marketing. Your responses to the questions will be kept confidential. Each interview will be assigned a number code to help ensure that personal identifiers are not revealed during the analysis and write up of findings.

There is no compensation for participating in this study. However, your participation will be a valuable addition to our research and findings could lead to greater understanding of adoption of E-Marketing within the companies' business strategies and the people in the field.

If you are willing to participate, please suggest a day and time that is convenient for you and I will do my best to be available. If you have any questions, please do not hesitate to ask me through my contact detail: i) email: [xxx](#)

Yours sincerely,  
Sepideh Zahiri  
PhD Researcher  
Department of **Strategy, Management and Marketing**  
Birmingham City University

## دعوتنامه برای مصاحبه

تاریخ:

آقای/خانم

متن پیوست نمونه ای است از دعوت نامه برای شرکت کنندگان در مصاحبه با موضوع ذیل: بررسی عوامل موثر در به کارگیری بازاریابی اینترنتی در شرکت های پخش در ایران: یک تحقیق تجربی. من مصاحبه ها را به عنوان بخشی از تحقیقات دکترا انجام می دهم تا قادر به افزایش دانش و فهم بیشتر از عوامل موثر در به کارگیری و پذیرش بازاریابی اینترنتی در شرکت های پخش در ایران شوم و قادر به یافتن مدل تئوری شوم تا شرکتهای پخش در ایران بتوانند بازاریابی اینترنتی را با استراتژی های تجاری شرکت ادغام کنند. به عنوان یک تمرین کننده در این زمینه، شما مناسب با موقعیت ایده آل و دارای تخصص در این زمینه هستید که قادر به دادن اطلاعات با ارزش دست اول از دیدگاه خود هستید.

مصاحبه حدود ۳۰ تا ۴۵ دقیقه طول می کشد و به شیوه ای غیر رسمی انجام می شود. من اساساً تلاش می کنم که نظرات و دیدگاه شما را در پذیرش بازاریابی اینترنتی بررسی کنم. پاسخهای شما به سوالات به صورت محرمانه نگهداری خواهد شد. به هر مصاحبه یک کد و شماره اختصاص داده می شود تا اطمینان حاصل شود که شناسه های شخصی در طی تجزیه و تحلیل و نوشتن یافته ها مشخص نشود.

هیچ مشکلی و هزینه ای برای مشارکت شما در این تحقیق وجود ندارد. با این حال، مشارکت شما علاوه بر ارزشمندی زیاد و کمک فراوانی که در انجام این تحقیق می کند، یافته ها و اطلاعات بدست آمده می تواند به درک بیشتر در مورد پذیرش بازاریابی اینترنتی در استراتژی های تجاری شرکت ها و افراد در این زمینه منجر شود. اگر مایل به شرکت هستید، لطفاً یک روز و زمان مناسب برای شما را پیشنهاد کنید و من تلاشم را برای آمدن، انجام خواهم داد.

با تشکر فراوان

سپیده ظهیری

دانشجوی دکترای دانشکده ی مالی، کار آفرینی و بازاریابی، دانشگاه بیرمنگهام سیتی انگلستان

## Appendix 13: Interview Consent Form in Farsi

### فرم رضایتنامه

موضوع پایان نامه: بررسی عوامل موثر در به کارگیری بازاریابی اینترنتی در شرکت های پخش ایران: یک تحقیق تجربی.

نام ، نام خانوادگی و آدرس محقق:

سپیده ظهیری

دانشجوی دکترای دانشگاه بیرمنگهام سیتی انگلستان

دانشکده ی تجارت، حقوق ، علوم اجتماعی

### لطفا تیک بزنید

۱. من تأیید میکنم که برگه ی اطلاعات برای تحقیق مذکور را مطالعه نموده و این فرصت را داشتم که سوالاتی را بپرسم.

۲. من متوجه هستم که مشارکت من داوطلبانه است و من آزاد هستم که در هر زمانی و بدون دادن هیچ دلیلی از مصاحبه کناره گیری کنم.

۳- من موافقم که در مصاحبه فوق شرکت کنم.

۴- من موافق ضبط صوت مصاحبه هستم و هر زمان طی مصاحبه صلاح دیدم درخواست قطع آن را بدهم.

۵- من موافق استفاده از اطلاعات داده شده و نقل قول مصاحبه در مقالات با نام ناشناس هستم.

۶- من موافقم که داده های جمع آوری شده در این مصاحبه، در یک جای امن نگه داری میشود (با نام ناشناس) در یک مرکز با امنیت بالا و ممکن است برای تحقیقات آینده مورد تقاضا قرار گیرد.

امضا

تاریخ

نام شرکت کننده

امضا

تاریخ

نام محقق

## برگه ی اطلاعات برای شرکت کننده

### هدف از تحقیق

هدف از این تحقیق، بررسی عوامل موثر در به کارگیری بازاریابی اینترنتی در بین شرکت های پخش در ایران، با هدف ایجاد یک مدل جدید جهت ادغام بازاریابی اینترنتی با استراتژی های بازاریابی در شرکتهای پخش ایران است. هدف از این تحقیق بررسی مدل ها، مراحل و ابزارهای مختلف بازاریابی اینترنتی است. این مطالعه تلاش خواهد کرد تا عوامل مختلفی را که از نظریه های پذیرش فناوری جدید ایجاد شده است، بررسی کند. این بررسی همچنین تلاش می کند تا رابطه بین عوامل موثر بر پذیرش بازاریابی اینترنتی و تاثیر آن بر عملکرد بازاریابی در میان شرکت های پخش را بررسی کند. هدف از این تحقیق توسعه یک مدل نظری است که می تواند به درک و تفسیر این روابط کمک کند و به کمک آن قادر به ارزیابی پتانسیل بازاریابی اینترنتی برای شرکت های توزیع کننده در ایران شود.

### مشارکت شرکت کننده

مشارکت در این مطالعه شامل مصاحبه ای خواهد بود که 30 تا 45 دقیقه طول می کشد. سوالات در مرحله اول بصورت تشریحی و تستی، برای کسب اطلاعات از شرکت کنندگان بر روی عوامل تاثیرگذار است که در مطالعات قبلی یافت شده است. سپس سوالاتی برای بررسی عوامل موثری که در تحقیقات قبلی مورد مطالعه قرار نگرفته مطرح می شوند، مانند متغیر مربوط به مسائل غیر اخلاقی. با موافقت شما ممکن است مصاحبه را با پرسیدن سوال های اضافی جهت واضح تر کردن موضوع ادامه دهم.

### داده های جمع آوری شده

پس از تکمیل مصاحبه ها، داده ها جهت تجزیه و تحلیل، توسط نرم افزار NVivo، رونویسی و رمزگذاری خواهد شد. مصاحبه ها بصورت ناشناس در تحقیقات، مقالات، گزارش ها و نشریات بیان خواهد شد. هیچ نام قانونی مورد استفاده قرار نخواهد گرفت. اگر مصاحبه شونده ها جمله ای نقل بکنند که به طور مستقیم در هر گزارش تحقیق، مقاله یا پایان نامه ذکر شد، از نام های ناشناس استفاده می شود. مصاحبه ها و رونوشت ها توسط محقق و ناظران تحقیق مشاهده می شود. گزارش کامل و جداول، نمودارها یا سایر داده ها در صورت درخواست، قابل دسترسی خواهند بود.

### ریسک های احتمالی

لطفا توجه داشته باشید: این تحقیق متعهد به تجزیه و تحلیل استراتژی های ارتباطی به طور کلی می باشد و جهت دسترسی به اسرار تجاری و / یا مالکیت معنوی نیست. در صورت نگرانی در مورد حقوق مالکیت معنوی یا اسرار تجاری شرکت شما لطفاً در مصاحبه به طور آشکار اعلام فرمایید.

### انصراف شرکت کنندگان

به عنوان یک شرکت کننده، شما ممکن است هر وقت قبل یا بعد از مصاحبه از مصاحبه انصراف دهید.

### برای اطلاعات بیشتر

لطفا در صورت لزوم با محقق اولیه، سپیده ظهیری با تماس بگیرید.

## Interview Guide

Birmingham City Business School,  
Birmingham City University

Interview Questions regarding "Determinants of Distribution Firms' Decision to Adopt E-Marketing and The Impact upon Marketing Performance: An Empirical Study of Iranian Firms"

### **INTERVIEW RECORD: BACKGROUND INFORMATION AND ORGANISATION CHARACTERISTICS**

Date of interview: \_\_\_\_\_  
Name of interviewee: \_\_\_\_\_  
Age of the Interviewee: \_\_\_\_\_  
Position of interviewee: \_\_\_\_\_  
Educational level: \_\_\_\_\_  
Name and size of the firm/organisation: \_\_\_\_\_  
Years in sector/industry: \_\_\_\_\_  
Years the company been in existence: \_\_\_\_\_  
Nature of distribution (if applicable): \_\_\_\_\_  
Scope of Distribution: \_\_\_\_\_

### **INTRODUCTION**

#### *A. Starting Up*

- Chat about getting on to the interview (e.g., journey to the interview place, weather, traffic etc.)

#### *B. Present Research Objectives*

"I would like to thank you for your time and kindness in accepting to participate in this research"

#### *C. Explain The Interview*

- The interview will be a conversation that will cover different aspects regarding adoption of E-Marketing by distribution firms and the factors influencing decision to adoption of E-Marketing. We are simply trying to capture your thoughts and perspectives on being a practitioner in doing business in distribution firm.

#### *D. Explain Confidentiality*

- Your responses to the questions will be kept confidential. Each interview will be assigned a number code to help ensure that personal identifiers are not revealed during the analysis and write up of findings.

E. Explain Voice Recorder

- Ask permission to record the interview. Remember that s/he can switch the recorder off at any time if not comfortable.

Please rate the following factors according to its importance in adopting E-Marketing by you:

| Determinants  | Important | Not Important | Not Applicable | 10 Important Factors in Sequent According to Priority |
|---|-----------|---------------|----------------|---|
| <b>Environmental Factors</b>  |           |               |                |   |
| 1. Government Policy Support (e.g., Financial Funding Opportunities). |           |               |                |   |
| 2. External Pressures (Pressure from Competitors, And Industry).      |           |               |                |   |
| 3. The Business Partner Affiliation                                   |           |               |                |   |
| 4. Economic Downturn.   |           |               |                |   |
| 5. External Pressures (Pressure from Customers/Suppliers).            |           |               |                |   |
| 6. National E-Readiness.  |           |               |                |   |
| 7. External IT Support (Technology Consultants' Involvement).         |           |               |                |   |
| 8. Technology Vendor Support.   |           |               |                |   |
| <b>Individual Factors</b>   |           |               |                |   |
| 9. Decision Maker's Age.  |           |               |                |   |
| 10. Decision Maker's Education Level.                                 |           |               |                |   |
| 11. Normative Social Influences.                                      |           |               |                |   |
| 12. Trust.  |           |               |                |   |
| 13. Owner/Manager Support (Involvement).                              |           |               |                |   |
| 14. Perceived Ease of Use.  |           |               |                |   |
| 15. Gender.   |           |               |                |   |
| 16. CEO/Owner's Innovativeness.                                       |           |               |                |   |
| 17. Intrinsic Motivation.   |           |               |                |   |
| 18. Extrinsic Motivation.   |           |               |                |   |
| 19. Job Fit with PC Use.  |           |               |                |   |
| 20. Long-Term Consequences of PC Use.                                 |           |               |                |   |
| <b>Organisational Factors</b>   |           |               |                |   |

| Determinants   | Important | Not Important | Not Applicable | 10 Important Factors in Sequent According to Priority |
|--|-----------|---------------|----------------|---|
| 21. Lack of Privacy and Security.  |           |               |                |   |
| 22 Size of The Company.  |           |               |                |   |
| 23. Organisation's Culture.  |           |               |                |   |
| 24. Organisation's E-Readiness (Firm's Financial Resources, Firm's IT Infrastructure, Human Infrastructure). |           |               |                |   |
| 25.Organisational Learning Orientation.  |           |               |                |   |
| 26. Receptivity (Attitude) Toward Change.  |           |               |                |   |
| 27. Marketing Capabilities of The Organisation.  |           |               |                |   |
| 28.Strategic Orientation.  |           |               |                |   |
| 29. The Level of Decentralisation.   |           |               |                |   |
| 30.Degree of Formalisation.  |           |               |                |   |
| 31. Employees' IT Knowledge (Level of New Technology Knowledge).   |           |               |                |   |
| 32.Management IT Knowledge.  |           |               |                |   |
| <b>Technological Factors</b>   |           |               |                |   |
| Determinants   | Important | Not Important | Not Applicable | 10 Important Factors in Sequent According to Priority |
| 33. Physical Infrastructures and Sufficient Accessibility to Internet Resources.                             |           |               |                |   |
| 34. Complexity of Technology.  |           |               |                |   |
| 35.Cost Effects.   |           |               |                |   |
| 36.Perceived Benefits.   |           |               |                |   |
| 37. Lack of Payment Facilities.  |           |               |                |   |
| 38. Lack of Reliable Power Supply.   |           |               |                |   |
| 39. Language Barrier.  |           |               |                |   |
| 40. Lack of Internet Address Space.  |           |               |                |   |
| 41. Compatibility.   |           |               |                |   |
| 42. Relative Advantage.  |           |               |                |   |
| <b>Legal and Regulatory Factors</b>  |           |               |                |   |
| Determinants   | Important | Not Important | Not Applicable | 10 Important Factors in Sequent According to Priority |

|  |  |  |  |  |
|--|--|--|--|--|
| 43. Lack of Technology Legislation and Guidelines (Copy right protection issue, Transaction issues, Trademark Security Problem). |  |  |  |  |
|--|--|--|--|--|

**4. CLOSE**

Is there anything else that you think it is important to mention about this research? Thank you for this interview. Switch off voice recording. Make sure respondent is comfortable, reassure about confidentiality and interest, chat.

Name of participant: \_\_\_\_\_

Date: \_\_\_\_\_

**Thank you,**

Your kind cooperation in this research is very much appreciated.

Appendix 16: Ethic Approval Application

**Please print this page for signatures and scan the signed copy as a pdf and attach it to this form**

**Applicant Declaration**

The information in this form is accurate to the best of my knowledge and I take responsibility for it.

I undertake to abide by the relevant disciplinary good practice guidelines on the proper conduct of research (see guidance notes).

If the research is approved, I undertake to adhere to the terms of the full application for which the BLSS Faculty Research Ethics Committee has given approval.

I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to security and confidentiality of patient, participant or other personal data, including the need to register when necessary with an appropriate Data Protection Officer as appropriate. I understand that I may not disclose identifiable data to third parties without the consent of person contributing that data or I may be legally required to do so.

I understand that research records/data may be subject to inspection for audit purposes if required.

I understand that the information contained in this application, any supporting documentation and all correspondence with BLSS Faculty Research Ethics of Committee relating to the application:

- Will be held by the Committee until at least 5 years after the end of the study.
- May be reviewed as part of the normal monitoring procedures in Faculty of Health to ensure that all applications are processed correctly or to investigate any complaints.

| For which category of proposal are you applying for ethical approval? |                                     |            |                          |
|---|-------------------------------------|------------|--------------------------|
| Category A  | <input checked="" type="checkbox"/> | Category B | <input type="checkbox"/> |

| STAFF RESEARCH   |  |
|--|--|
| Signed by  |  |
| Date   |  |
| STUDENTS ONLY (including staff doctoral students)                                  |  |
| I have discussed and agreed this application for ethical review with my supervisor |  |
| Signed by  | SEPIDEH ZAHIRI  |
| Date   | 10/10/2016   |

## SUPERVISORS ONLY

### Declaration

I have read and approved both the research proposal and this application. I am satisfied that the scientific content of the research is satisfactory for an educational qualification at this level.

I take responsibility for working with the student named above to ensure that this study is conducted in accordance with the relevant disciplinary ethical guidelines.

I take responsibility for ensuring that the applicant is up to date and complies with the requirements of the opinion and any conditions set out by the Committee in giving its favourable opinion.

I undertake to seek an ethical opinion from the BLSS Research Ethics Committee before implementing substantial amendments to the protocol or to the terms of the full application of which the Committee has given a favourable opinion.

I undertake to submit progress reports as required by law and relevant guidelines relating to security and confidentiality of patient and other personal data, in conjunction with clinical supervisors as appropriate.

| SUPERVISOR |                        |
|------------|------------------------|
| Signed by  | <i>Hatem Osman Aly</i> |
| Date       | 10 October 2016        |
|            |                        |
| Signed by  |                        |
| Date       |                        |

PLEASE SEND COMPLETED APPLICATIONS FOR ALL CATEGORIES TO [blssethics@bcu.ac.uk](mailto:blssethics@bcu.ac.uk)  
In the email subject header please insert the category being applied for and the name of the applicant.

23<sup>rd</sup> August 2017

Morag Kennedy

Application Ref: 108.16 Cat A

**Project title: *Factors influencing the adoption of Internet Marketing amongst Iranian distribution companies: An integrated approach***

Dear Sepideh

Thank you for submitting your ethics application to the Faculty Research Ethics Committee for review.

I am glad to advise you that the committee feels that this research is ethically sound and full ethical approval has been granted.

All the best with your research.

Yours sincerely



Professor John Clibbens  
Chair of the Faculty Research Ethics Committee

## Appendix 17: Epistemological Assumptions

### Positivism

According to positivism, the reality is empirically given and can be explained by assessable properties that are free of the examiner and his/her instruments (Myers and Avison, 2002). A positivism study is a process of fact finding whereby knowledge is examined by means of hypotheses (Bryman and Bell, 2015) that can be either accepted or rejected depending on the information. Quantitative research method usually adopted with a positivist approach, and the investigator is independent of the research entity and the knowledge. The positivists' preference is to study the observable social authenticity and produce outcomes (Remenyi *et al.*, 1998). The positivists deploy existing model for developing hypotheses prior to data collection which will be then examined and approved in the study (Tashakkori and Teddlie, 2010). In a positivism perspective the conducted research is a "value-free away" which means the examiner is free and independent of and neither impacts nor is influenced by the context of the study (Remenyi *et al.*, 1998; p: 33). In positivism perspective, the social entity, their actions, and organisations can be considered as empirically as the natural world (Fisher, 2003). Furthermore, the positivists search for laws and observe interconnection through objective examination of the realities that have been collected but the absolute reality can never be found.

This research approach in e-adoption studies assumes that an objective physical (refers to the organisation) and social world (connections and interaction of organisation actors with technology tool) are in presence independently of the people, and whose nature be able to be moderately unproblematic, detained, described, and measured (Orlikowski and Baroudi, 2002, pp. 7-9). There are number of studies that include perception based behavioral models such as the DTPB in amalgamation with the DOI (Rogers, 1995), TAM (Davis, 1986), TAM related studies (e.g., Uzoka *et al.*, 2007), and the e-readiness theory (Molla and Licker, 2005). However, both objectivity and value-free entitlements of this approach have been extremely criticised by scholars who have different philosophical conversion (e.g., Miles *et al.*, 1994; Stake, 1995; Miles and Huberman, 1994; and Guba and Lincoln, 1994). For example, Guba and Lincoln (1994) argue that it is difficult to interpret the phenomena independently from the humans, since human behavior in contrast of physical objects, cannot be interpreted without referring to the objectives attached by social actors to their behaviors. This has led to the interpretivism perspective.

### Interpretivism or Social Constructivism

Social constructivism believers are on the opposite with positivist believers, in terms of the adoption of science approaches in explaining this phenomenon, since they believe that the phenomena is too compound to be explained based on its outline or its consistency (Saunders, 2012). The human and social reality is only interpreted intensely by individuals who have knowledge of it; thus, to identify it, the researcher needs to be involved in the reality with purpose of getting an insight from subject's point of view (Blaikie, 2019). Interpretivists discuss that rich perspective into this compound world are lost if such complication is decreased completely to a chain of "law-like" generalisations which means that the investigator and the entity under examination are attached into a single object (Denzin and Lincoln, 2010; Houghton, and Hunter and Meskell, 2012). Thus, there is a need for scholars to be aware of their insights and the consequences of them on the outcomes (Houghton *et al.*, 2012).

Although the close involvement between the investigator and the phenomena is one of the strength of this approach (Walsham, 2006), however it has some limitations such as: 1) Generalisation of the research outcomes to a research population is not required in this approach; 2) this philosophical belief does not test the external environments; 3) most studies ignores to describe the unintended significances of action; 4) this research paradigm does not address organisational conflicts in society and disregards inconsistencies which may be prevalent to social systems; and finally 5) this approach ignores to describe historical transformation (how a specific social order derived to be as what it is, and how it is possibly to differ over time) (Orlikowski and Baroudi, 1991, p. 13; and Gale and Beefink, 2006). Scholars that favor this philosophical approach in e-adoption studies assume that reality is only over social structures and shared implications (Walsham, 2006) and the investigator becomes an intermediate for collaborating what is the reality of e-adoption to the external world (Andrade, 2009). Understanding the e-adoption phenomenon in companies would involve that a researcher be engaged in the examination of language, awareness, and image of the actors.

### Advocacy or Participatory Approach

This epistemological approach is adopted in qualitative study although it can act as a basis for a quantitative study. Under participatory research philosophy, the study comprises an action outline that might assist to modify the lives of the contributors and the organisations wherein they work. Participatory research is an opinion through which participants can increase their plan to change and mostly begin with an important subject or problem in society and purpose

to generate political discussion that will lead toward change (Creswell, 2010, and Denzin and Lincoln, 2011).

### Critical Theory

Guba and Lincoln (2000) argue that critical theory paradigm is mainly categorised by the researcher's evaluative perspective that is not strong in interpretive study. On the other hand, some other scholars believe that the two philosophies are related (e.g. Walsham, 1993; and Creswell and Miller, 2000). critical theory explains the diverse role of the approach for any study that is linked to or has a social context (Walsham, 1993). Critical theory's main focus is on research problem rather than the techniques employed to understand the issue. This viewpoint concerns mixed-method study including both quantitative and qualitative methodologies that the researcher is free to select the research approaches, techniques and processes that best meet the research objectives (Leech *et al.*, 2010). This philosophical approach has appeared as a substitute to positivism and constructivism, wherein a flexible method is deployed instead of the deductive approach that is based on the overall principle of achieving certain conclusions or the inductive approach that pursues to draw overall conclusions based on individual ideas (Wheeldon, 2010). Therefore, critical theory is a rejection of a compulsory choice between positivism and constructivism approach and contemplates both quantitative and qualitative methods as harmonious (Molina Azorín and Cameron, 2010).