



MODELLING ENTREPRENEURIAL CAPITAL
CONVERTIBILITY DYNAMICS
IN SMES

BY

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DECLARATION

This thesis has been composed by me from the results of my own work, except where stated otherwise. It has not been submitted in any previous application for a degree.

DEDICATION

This thesis is dedicated to all those who have contributed positively in its production including my parents.

ACKNOWLEDGEMENTS

Many people contributed to the success of this thesis. I first want to thank Divine Providence for continuous guidance. Thanks to the Birmingham City Business School for allowing me to pursue my dreams by providing sponsorship for the studies. I also thank the two pillars without whom this would have been impossible in the persons of Professor John Sparrow, Professor Harry Matlay, Dr Steven McCabe and Ms Catherine Eden. Their continuous encouragement kept my zeal alive even in tough times. Special thanks to other members of Birmingham University Business School for the continuous encouragement and support.

ABSTRACT

Entrepreneurial capital has recently emerged as an important facet of entrepreneurship and new venture creation. Much of the evidence to validate such claims emerged from research that focussed upon large businesses and multinational corporations. Despite this newly acquired status and the rise of small and medium-sized enterprises (SMEs) to the top of the socio-economic and political agendas of policy makers in both industrially developed and developing nations, there exists a marked paucity of empirically rigorous research on entrepreneurial capital and convertibility dynamics in SMEs, with a focus on the practical measurement and management of owner-manager experience and knowledge. Fairchild (2002) notes that the practical management objectives of measuring owner-managers' knowledge are to find out how well an SME can convert human capital like individual learning/team capabilities to structural capital like organizational knowledge or aspects like documented processes and knowledge bases and thereby moved from tacit to explicit knowledge, and reduced the risk of knowledge lost with the constant changes in such businesses. To bridge this knowledge gap, this research study investigates the dynamics of entrepreneurial capital convertibility in UK SMEs.

For the purpose of this thesis, an innovative mixed-method approach was developed, to include 17 face-to-face interviews capturing both quantitative and qualitative data with owner-managers and eight case studies of SMEs located in the West Midlands region of the United Kingdom. The quantitative data generated was analysed using SPSS. This was harmonized with qualitative data obtained from focussed case studies. Developing results presents a rich and in-depth insight into entrepreneurial capital convertibility in SMEs, specifically from the owner-manager's perspective. The role and centrality of owner-managers in the process of entrepreneurial capital convertibility in SMEs was illustrated and confirmed.

The results suggest that a mixed approach provides an informative and powerful method to explore entrepreneurial capital convertibility dynamics in SMEs, reflecting owner-managers' capital in terms of knowledge management development, strategic thinking, design thinking, leadership styles and entrepreneurial types. Thus, an owner-manager's personality is mostly shaped by their environment (*ba*) and past and/or shared experiences which, in turn, influences the way SMEs are disposed to entrepreneurial capital convertibility.

An original model of entrepreneurial capital convertibility dynamics is outlined, that reflects perceptions of SME owner-managers' mental 'mind maps'. Suggestions are made to extend and validate the entrepreneurial capital convertibility model in future research in a national and international context. Through a process of testing and validating the model, knowledge audits may aid SMEs in adopting knowledge management practices leading to strategic thinking. A process of continuous reflection, experimentation and organising to withstand environmental turbulence is also recommended. Furthermore, if SME owner-managers adopt knowledge management practices and their implications in terms of flexibility and adaptation, they will be better positioned to interact, learn and co-produce with strategic stakeholders, re-design internal and external business processes and survive in a dynamic environment.

DEFINITION OF TERMS USED IN THIS STUDY

SME: The Companies Act of 2006 states that a business is small if it satisfies at least two of the following: a revenue total of up to £6.5 million; a statement of financial position total of up to £3.26 million; and less than 50 employees. A medium sized company; revenue total up to £25.9 million; a statement of financial position of up to £12.9 million; and less than or equal to 250 employees.

Owner-manager: Owner-managers are workers who hold a job in an incorporated enterprise, in which they: (a) alone, or together with other members of their families or one or a few partners, hold controlling ownership of the enterprise; and (b) have the authority to act on its behalf as regards contracts with other organizations and the hiring and dismissal of persons “in paid employment” with the same organization, subject only to national legislation regulating such matters and the rules established by the elected or appointed board of the organization (OECD 2010).

Entrepreneur: An individual who, rather than working as an employee, runs a small business and assumes all the risk and reward of a given business venture, idea, or good or service offered for sale. The entrepreneur is commonly seen as a business leader and innovator of new ideas and business processes

Capital: Resources in financial or non-financial form, used or accumulated in a business by an owner-manager.

Convertibility: The process and motive of transforming capital from one form to another (Bourdieu 1986)

Ba: A shared context in motion, in which knowledge is shared, created, and utilized providing the energy, quality, and places to perform individual knowledge conversions and to move along a knowledge spiral (Nonaka and Toyama 2003)

TABLE OF CONTENTS

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENTS.....	iii
ABSTRACT	iv
DEFINITION OF TERMS USED IN THIS STUDY	vi
TABLE OF CONTENTS	vii
LIST OF APPENDICES.....	xxii
LIST OF TABLES.....	xxiii
LIST OF FIGURES	xxiii

CHAPTER 1: INTRODUCTION

1.0 Overview.....	1
1.1 The purpose and origin of the thesis	1
1.1.1 Knowledge Economy and Knowledge Strategy.....	1
1.1.2 Knowledge and the SME	2
1.1.3 A gap in the literature.....	2
1.2 Discussion of the main concept in the thesis	3
1.2.1 The SME.....	3
1.2.2 The structure and management of SMEs	5
1.2.3 SMEs in a technological age.....	7
1.2.4 Success factors in SMEs	7

1.3 Entrepreneur and entrepreneurial capital convertibility.....	8
1.4 Knowledge.....	10
1.4.1 Tacit knowledge.....	11
1.4.2 Explicit knowledge	11
1.4.3 Knowledge management.....	11
1.4.4 SMEs and the management of knowledge	12
1.4.5 Introducing KM into an SME	13
1.5 Rationale for the study	13
1.6 Research aim and objectives.....	14
1.6.1 Objectives:	14
1.6.2 Origins of the study/thesis in earlier works	14
1.6.3 Contribution of the study	15
1.6.4 Practical purposes of the study	16
1.6.5 Theoretical purposes of the study	16
1.7 Structure of the Thesis.....	17
1.8 Conclusion	18

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction.....	20
2.1 Convertibility.....	20
2.2 The entrepreneur	22
2.2.1 The entrepreneur and success.....	23
2.2.2 The owner-manager and entrepreneurship.....	24

2.2.3 Personal characteristics of owner-managers	25
2.2.3.1 Need for achievement	27
2.2.3.2 Locus of control (LOC).....	28
2.2.3.3 Risk-taking	28
2.2.3.4 Awareness.....	29
2.2.3.5 Entrepreneurial self-efficacy (ESE)	29
2.2.3.6 Social competence	30
2.2.3.7 Intuition.....	30
2.2.3.8 Innovation.....	31
2.2.3.9 Absorptive capacity.....	32
2.2.3.10 Pro-activeness	33
2.2.3.11 Competitive aggressiveness	34
2.2.3.12 Agility and adaptability.....	35
2.3 Entrepreneurship as a creativity-innovation process.....	36
2.4 The macroeconomic environment.....	38
2.4.1 Socio-cultural influences	39
2.4.2 The economist’s view.....	41
2.4.2.1 Exploitation of opportunities	41
2.4.2.2 Economic entrepreneurial judgments.....	43
2.4.3 The industry environment.....	43
2.4.4 Competitive advantage.....	44
2.5 The resource-based view of capital	47
2.5.1 The micro-economic environment	47
2.5.2 Capital convertibility.....	48

2.5.3 Differentiating forms of capital.....	49
2.5.3.1 The concept of economic capital	50
2.5.3.2 The concept of social capital.....	52
2.5.3.2.1 Quality and quantity	53
2.5.3.2.2 Application of social capital to business.....	54
2.5.3.2.3 Power	56
2.5.3.3 The concept of human capital	57
2.5.3.3.1 Value of human capital.....	58
2.5.3.3.2 Investing in learning.....	60
2.5.3.3.3 Unlearning styles.....	60
2.5.3.3.4 Bargaining power	61
2.5.3.4 The concept of cultural capital.....	62
2.5.3.5 The concept of intellectual capital	65
2.6 Conclusion	67

CHAPTER 3: THE KNOWLEDGE BASED VIEW

3.0 Introduction.....	69
3.1 Entrepreneurial capital as knowledge and change.....	69
3.2 Knowledge.....	71
3.2.1 Tacit and Explicit	72
3.3 Knowledge convertibility.....	73
3.3.1 The SECI Process	73
3.3.1.1 Socialisation.....	74

3.3.1.2 Externalisation	74
3.3.1.3 Combination	74
3.3.1.4 Internalisation	75
3.3.2 Ba	78
3.3.2.1 Ba and communities of practice.....	79
3.3.2.2 Originating ba	80
3.3.2.3 Dialoguing ba	80
3.3.2.4 Systemising ba	81
3.3.2.5 Exercising ba	81
3.3.3 Knowledge Types	81
3.3.3.1 Experiential knowledge.....	82
3.3.3.2 Conceptual knowledge.....	82
3.3.3.3 Systemic knowledge.....	83
3.3.3.4 Routine knowledge.....	83
3.4 Knowledge convertibility enablers	84
3.4.1 Knowledge management.....	84
3.4.2 Providing the vision	84
3.4.3 Autonomy.....	85
3.4.4 Promoting the SECI process	85
3.4.5 Redundancy	85
3.5 Knowledge convertibility in SMEs.....	86
3.5.1 Knowledge in use in SMEs	87
3.5.1.1 Knowing what we know.....	87
3.5.1.1.1 Decision making	90

3.5.1.1.2 Applying the Schumpeter and Kirzner approaches.....	90
3.5.1.1.3 Creative chaos in decision making	92
3.5.1.2 Kinds of knowledge	94
3.5.1.3 Forms of thoughts	95
3.5.1.3.1 Applying Ned Hermann’s four quadrant model	100
3.5.1.4 Types of thinking	102
3.5.1.5 Knowledge Recognition	103
3.5.1.6 Summary of knowledge in use	103
3.5.2 Knowledge bases and systems	104
3.5.2.1 Knowledge location	105
3.5.2.2 Features of knowledge systems.....	105
3.5.2.3 Intellectual property	106
3.5.2.4 Summary of knowledge systems	107
3.5.3 Knowledge and learning processes in SMEs.....	108
3.5.3.1 Learning processes	108
3.5.3.2 Learning support and evaluation	108
3.5.3.3 Summary of knowledge renewal	109
3.5.4 Adapting to a global dynamic knowledge economy.....	110
3.5.4.1 Competitive intelligence.....	110
3.5.4.2 Entrepreneurial capital in a dynamic economy.....	111
3.5.4.3 Change management capability	112
3.5.4.4 Summary of the knowledge economy	112
3.5.5 The integrated needs for knowledge in SMEs.....	113
3.6 Strategic thinking.....	114

3.6.1 Measuring intangibles	114
3.6.2 The strategy map	116
3.6.2.1 Summary	117
3.7 Design thinking	118
3.7.1 Management by perception	119
3.7.2 Marketing by perception	120
3.7.3 Convertibility matrix	121
3.8 The owner-manager as a leader	122
3.8.1 Leadership and adaptability	123
3.9 A model for consideration.....	124
3.9.1 Looking ahead	124
3.9.2 Moving towards a learning SME.....	127
3.9.2 Conclusion	128

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.0 Introduction	130
4.1 Research aim and objectives	130
4.1.1 Objectives.....	130
4.2 Research.....	131
4.2.1 Business research.....	131
4.3 Philosophy (Ontology and Epistemology).....	132
4.3.1 The question	133
4.3.2 Self reflection	134

4.3.3	Positivist approach.....	135
4.3.4	Interpretivism	137
4.4	Approaches	138
4.4.1	Deductive approach	138
4.4.2	Inductive approach.....	139
4.4.3	Mixed approach	139
4.5	Research strategy.....	140
4.5.1	Research methodology	140
4.5.2	Data processing and analysis	142
4.6	The case for regional study	143
4.7	The holistic approach.....	143
4.7.1	Deciding on an approach.....	144
4.7.1.1	Preliminary research methods	145
4.7.2	Conducting the pilot.....	146
4.7.3	Administering the questionnaire.....	147
4.8	The main study.....	149
4.8.1	Sampling.....	149
4.8.2	Rationale for use of questionnaires.....	149
4.8.3	Knowledge management audit tool	150
4.8.4	Questions on the intervening period	153
4.8.5	Change over time.....	154
4.8.6	Interviews	154
4.8.7	Convertibility.....	158
4.9	Modeling - Determinants of Convertibility.....	158

4.9.2 Propositions	158
4.9.3 Data Analysis	159
4.9.4 Verification, Validity and Reliability	159
4.9.5 Objectivity	160
4.9.6 Ethical considerations	160
4.9.7 Conclusion	160

CHAPTER 5: PRESENTATION OF RESULTS AND ANALYSES

5.0 Introduction	162
5.1 Knowledge management	163
5.1.1 Knowledge in use	164
5.1.1.1 Kinds of knowledge	164
5.1.1.1.1 Critical experiences	165
5.1.1.1.2 Personal understanding	165
5.1.2 Knowledge systems	166
5.1.3.1 Comprehensiveness	166
5.1.3.2 Accessibility	167
5.1.3.3 Security	168
5.1.3 Knowledge renewal	168
5.1.4.1 Information from competitors	168
5.1.4.2 Information from customers	169
5.1.4.2 Information from the internet	169
5.1.4.3 Performance indicators	170

5.1.4.4 Learning support and evaluation	171
5.2 Design thinking	172
5.2.1 Individual business	173
5.2.2 Tentative models	173
5.3 Strategic thinking.....	175
5.3.1 Innovation processes	175
5.3.2 Regulatory and social processes.....	176
5.3.3 Financial perspective	177
5.3.4 Information capital.....	178
5.3.5 Organisational Capital.....	179
5.4 Conclusion	180
5.5 Presentation of mixed data results.....	181
5.5.1 Ranking of case studies (CS)	181
5.6 Cases suggesting convertibility at the high level	183
5.6.1 On knowledge management	183
5.6.1.1 Knowledge in use.....	183
5.6.1.1.1 Knowledge base	183
5.6.1.1.2 Kinds of knowledge.....	184
5.6.1.1.3 Forms of thoughts	184
5.6.1.1.4 Types of thinking	184
5.6.1.1.5 Knowledge recognition	185
5.6.1.1.6 Summary of knowledge in use	185
5.6.1.2 Knowledge systems.....	186
5.6.1.2.1 Features of knowledge.....	186

5.6.1.2.2 Knowledge location	186
5.6.1.2.3 Summary of knowledge systems	187
5.6.1.3 Knowledge renewal.....	188
5.6.1.3.1 Learning sources	188
5.6.1.3.2 Learning processes	189
5.6.1.3.3 Learning and evaluation.....	190
5.6.1.3.3 Summary of knowledge renewal	190
5.6.1.4 Knowledge economy management	190
5.6.1.4.1 Summary of knowledge economy	191
5.6.2 On strategic thinking	192
5.6.2.1 Learning and growth perspective	192
5.6.2.1.1 Case study on learning and growth	193
5.6.2.1.2 Summary on learning and growth perspective	200
5.6.2.2 Internal perspective	201
5.6.2.2.1 Case study on internal perspective.....	201
5.6.2.2.2 Summary on internal perspective	210
5.6.2.3 Customer perspective	210
5.6.2.3.1 Case study on the customer perspective	211
5.6.2.3.2 Summary on the customer perspective.....	217
5.6.2.4 Financial perspective	217
5.6.2.4.1 Case study on the financial perspective.....	217
5.6.2.4.2 Summary on the financial perspective	222
5.6.3 On Design thinking	223
5.6.3.1 Internal aspects	223

5.6.3.1.1 Case study on the internal aspects	223
5.6.3.1.2 Summary on the internal aspects	225
5.6.3.2 External aspects	225
5.6.3.2.1 Case study on the external aspects	225
5.6.3.1.2 Summary on the external aspects.....	228
5.6.3.3 Summary for cases suggesting convertibility at a high level	229
5.7 Cases suggesting a low level of convertibility	230
5.7.1 On Knowledge Management.....	230
5.7.1.1 Knowledge in use	230
5.7.1.1.1 Knowledge base	230
5.7.1.1.2 Kinds of knowledge	230
5.7.1.1.3 Forms of thoughts	231
5.7.1.1.4 Types of thinking	231
5.7.1.1.5 Knowledge recognition	231
5.7.1.1.6 Summary on knowledge in use	231
5.7.1.2 Knowledge systems	232
5.7.1.2.1 Features of knowledge	232
5.7.1.2.2 Knowledge location	232
5.7.1.2.3 Summary on knowledge systems	232
5.7.1.3 Knowledge renewal	233
5.7.1.3.1 Learning sources.....	233
5.7.1.3.2 Learning processes	233
5.7.1.3.3 Learning and evaluation.....	234
5.7.1.3.4 Summary on knowledge renewal	234

5.7.1.4 Knowledge economy management	235
5.7.1.4.1 Knowledge economy management summary	235
5.7.2 On Strategic Thinking	236
5.7.2.1 Learning and growth perspective	236
5.7.2.1.1 Case study on the learning and growth perspective	236
5.7.2.1.2 Summary on the learning and growth perspective	241
5.7.2.2 Internal perspective	242
5.7.2.2.1 Case study on the internal perspective	242
5.7.2.2.2 Summary on the internal perspective	247
5.7.2.3 Customer perspective	248
5.7.2.3.1 Case study on the customer perspective	248
5.7.2.3.2 Summary on the customer perspective	252
5.7.2.4 Financial perspective	252
5.7.2.4.1 Case study on the financial perspective	252
5.7.2.3.2 Summary on the financial perspective	256
5.7.3 On design thinking	257
5.7.3.1 internal aspects	257
5.7.3.1.1 Case studies on the internal aspects	257
5.7.3.1.2 Summary on the internal aspects	261
5.7.3.2 External aspects	261
5.7.3.2.1 Case studies on the external aspects	261
5.7.3.1.2 Summary on the external aspects	264
5.7.4 Summary for cases suggesting convertibility at a low level	264
5.8 Conclusion	265

5.8.1 Summary table	267
5.8.2 Propositions	267

CHAPTER 6: DISCUSSION

6.0 Introduction	270
6.1 Convertibility	270
6.2 Patterns of convertibility	272
6.3 Business approaches and convertibility	273
6.3.1 Cases suggesting a high level of convertibility	273
6.3.2 Cases suggesting a low level of convertibility.....	286
6.4 Conceptual framework development	297
6.5 Conclusion	302

CHAPTER 7: CONCLUSION: IMPLICATIONS, RECOMMENDATIONS AND INDICATIONS FOR FURTHER STUDIES

7.0 Introduction	303
7.1 Main findings.....	303
7.2 Discussion.....	306
7.2.1 Entrepreneurial and market orientation.....	306
7.2.1.1 Summary on entrepreneurial and market orientation	308
7.2.2 Bourdieu's assertion	309
7.2.2.1 Summary Bourdieu's assertion.....	310
7.2.3 Creativity – Innovation continuum	311

7.2.3.1 Experience.....	312
7.2.3.2 Routines	312
7.2.3.3 Emotions	312
7.2.3.4 Motivations.....	313
7.2.3.5 Social networks	313
7.2.3.6 Fluidity	314
7.2.3.7 Practical application	314
7.2.3.8 Summary on creativity-innovation	316
7.2.4 Decision making	317
7.2.4.1 Summary on decision making	318
7.2.5 Dynamic environment adaptation	319
7.2.5.1 Summary on dynamic environment adaptation	321
7.3 Significance of the findings	324
7.3.1 Case Studies	328
7.3.2 Learning Implementation	328
7.4 Contribution	329
7.5 Recommendations	331
7.5.1 Knowledge audit	332
7.6 Limitations.....	333
7.7 Implications for future research	333
REFERENCES	336

LIST OF APPENDICES

APPENDIX A: Stages of Knowledge Management Development in SMEs...	362
APPENDIX B: Introductory letter of research intention to SMEs.....	364
APPENDIX C: Knowledge Management Questionnaire	365
APPENDIX D: Questionnaire on design thinking	373
APPENDIX E: Questionnaire on strategic thinking	375
APPENDIX F: Interviews Questionnaire.....	376
APPENDIX G: Questionnaire on Convertibility	377
APPENDIX H: Independent sample t test.....	378
APPENDIX I: Correlations on Design Thinking	383
APPENDIX J: Correlations on Strategic Thinking.....	395
APPENDIX K: Correlations on Knowledge Management.....	406
APPENDIX L: Case study summaries	417
APPENDIX M: Transcript of interviews	423

LIST OF TABLES

Table 1.1: SME terminology	4
Table 1.2: Important Research Contributions	19
Table 4.1: Characteristics of Survey and Case Based Strategies	141
Table 4.2 Case study advantages and disadvantages.....	142
Table 5.1: Statistical Results for Internal Aspects	174
Table 5.3: Summary for cases suggesting convertibility at a high level.....	229
Table 5.4: Summary of cases suggesting convertibility at a low level	264
Table 5.4: Summary of cases.....	267
Table 7.1: Summary of cases suggesting convertibility at high levels.....	322
Table 7.2: Summary of cases suggesting convertibility at low levels	323

LIST OF FIGURES

Figure 2.1: Convertibility process	21
Figure 2.2: Intentions of owner-managers.....	24
Figure 2.3: Entrepreneurial capital components.....	26
Figure 2.4 Knowledge accumulation process	32
Figure 2.5: Entrepreneurship process	37
Figure 2.6: Business Perspective.....	51
Figure 2.7: Financial objective.....	57
Figure 2.8: Forms of human capital	59

Figure 2.9: Financial and customer perspectives	61
Figure 2.10: Opportunity Matrix.....	63
Figure 2.11: Financial, customer and process perspectives	65
Figure 3.1: The SECI process	76
Figure 3.2 Creating knowledge with outside constituents	77
Figure 3.3: Types of ba.....	80
Figure 3.4: Knowledge types	82
Figure 3.5: Knowledge sharing in an SME.....	94
Figure 3.6: Knowledge creation in a spiral	96
Figure 3.7: Psychological Aspect of Convertibility.....	99
Figure 3.8: Ned Herman’s model	100
Figure 3.9: Problem solving cycle	102
Figure 3.10: Knowledge chain model.....	120
Figure 3.11: Convertibility matrix	121
Figure 3.12: Conceptual Framework	125
Figure 4.1: The research process.....	156
Figure 5.1: Innovation process management	176
Figure 5.2: Regulatory and social process	177
Figure 5.3: Financial perspective	178
Figure 5.4: Information capital process	179
Figure 5.5 Organisational capital.....	180
Figure 5.6: Ranking of SMEs.....	181
Figure 5.7: Learning and growth trends for CS3.....	198
Figure 5.8: Learning and growth trends for CS5.....	200

Figure 5.9: Internal process trends for CS2.....	204
Figure 5.10: Internal process trends for CS3.....	207
Figure 5.11: Internal process trends for CS5.....	209
Figure 5.12: Customer Perspective for CS2	212
Figure 5.13: Customer perspectives for CS3.....	214
Figure 5.14: Customer perspectives for CS5.....	216
Figure 5.15: Financial perspective trends for CS3.....	221
Figure 5.16: Financial perspective trend for CS5.....	222
Figure 5.17: External aspect trends for CS3.....	227
Figure 5.18: Learning and growth for CS4.....	237
Figure 5.19: Learning and growth for CS6.....	238
Figure 5.20: Learning and growth for CS7	240
Figure 5.21: Learning and growth for CS8.....	241
Figure 5.22: Internal process trends for CS4.....	242
Figure 5.23: Internal process trends for CS6.....	244
Figure 5.24: Internal process trends for CS7.....	245
Figure 5.25: Internal process trends for CS8.....	247
Figure 5.26: Customer perspective trends for CS4.....	249
Figure 5.27: Customer perspective trends for CS6.....	250
Figure 5.28: Customer perspective trends for CS7	251
Figure 5.29: Customer perspective trends for CS8.....	252
Figure 5.30: Financial perspective trend for CS4.....	254
Figure 5.31: Financial perspective trend for CS6.....	255
Figure 5.32: Financial perspective trend for CS7	256

Figure 5.33: Internal aspect trends for CS4	258
Figure 5.34: Internal aspect trends for CS6	260
Figure 5.35: Internal aspect trends for CS7	260
Figure 5.36: External aspect trends for CS4.....	262
Figure 5.37: External aspect trends for CS6.....	263
Figure 6.1: SME customer perception of value for CS2 and CS5	274
Figure 6.2: Convertibility matrix for CS2 and CS5.	276
Figure 6.3: SME leadership styles for CS2 and CS5.....	278
Figure 6.4: Cause – effect diagram for CS2 and CS5.....	279
Figure 6.5: Customer perception of value for CS3.....	280
Figure 6.6: Convertibility matrix for CS3.....	282
Figure 6.7: SME leadership style for CS3	284
Figure 6.8: Cause – effect diagram for CS3	285
Figure 6.9: Customer perception of value for CS4, CS7 and CS8.	286
Figure 6.10: Convertibility matrix for CS4, CS7 and CS8.	289
Figure 6.11: SME leadership styles for CS4, CS7 and CS8.	290
Figure 6.12: Cause – effect diagram for CS4, CS7 and CS8.....	291
Figure 6.13: Customer perception of value for CS6.....	292
Figure 6.14: Convertibility matrix for CS6.....	294
Figure 6.15: SME leadership style for CS6	295
Figure 6.16: Cause – effect diagram for CS6	296
Figure 6.17 Framework adaptations to convertibility at high levels.....	300
Figure 6.18 Framework adaptations to convertibility at low levels	301
Figure 7.1 Model of the virtuous cycle of convertibility	327

CHAPTER 1: INTRODUCTION

1.0 Overview

This chapter introduces the thesis and is organised into five sub sections: the rationale and origins of the thesis; the definition and discussion of key ideas; an introduction to the research methodology; an introduction to some issues with which the research is concerned; and an overview of the structure of the thesis.

1.1 The purpose and origin of the thesis

The purpose of this thesis is to make a contribution to entrepreneurial capital convertibility in small and medium sized enterprises (SMEs), based on owner-managers' knowledge and past experience. It also considers how this may assist SMEs in competing through the processes of knowledge management development and strategic and design thinking by proposing a model. Previous studies have suggested a number of models for businesses, mainly based on the knowledge systems of SMEs and their effects on individuals, teams and business performance (Liebowitz, 1999; Perez-Soltero et al., 2007). Others have concentrated on continuous development through organisational learning (Sparrow, 1998; 2001) and the importance of owner-managers' knowledge (Matlay and Westhead, 2005), based on an ever growing knowledge economy. This thesis seeks to integrate these processes in the context of SMEs with regards to owner-managers knowledge and experience in convertibility of capital.

1.1.1 Knowledge economy and knowledge strategy

The idea of owner-managers' knowledge and experience is an area of increasing study, especially with the rise of knowledge intensive firms (Karreman and Alvesson, 2001). The argument here hinges on a global world and the arrival of the new information technologies, which have changed most products, services, jobs, social

relations, economies and societies (Webster, 2002). Whereas once such knowledge was a scarce commodity, it has now become more generally available at a much faster rate than before (Coff et al., 2006) especially in virtual networks leading to innovation in processes and markets (Matlay and Westhead 2005). Hargreaves (2011) suggests that rapid innovation is the main source of competitive advantage and a way of coping with increased uncertainty which requires an entrepreneurial mindset and application. Entrepreneurial speed therefore demands processes for owner-managers to be involved in self-reflection, knowledge management development and decision-making to adapt and respond to the dynamic environment.

1.1.2 Knowledge and the SME

SMEs are the drivers of economic growth and encouraging enterprise through SME policy is increasingly a government goal (OECD, 2010). Sparrow (1998) indicates that government support requires special design if it is to be acceptable and effective. Owner-managers of SMEs tend to find that advice from external sources to their business requires careful consideration and there is a requirement to demonstrate the usefulness of managing SME knowledge and processes in such a way that owner-managers will recognise opportunities, exploit them and continuously transform their resources to increase wealth for themselves and support economic growth.

1.1.3 A gap in the literature

The majority of studies on models in entrepreneurial capital and convertibility are based on large, successful companies (Scarborough, 1998). In contrast, such models have rarely been applied to SMEs and little consideration paid to mixed studies focusing on owner-managers' knowledge and experience and their influence on conversion of resources. Some research has, however, shown the potential for a

mixed approach to assist businesses in the augmentation of capabilities to manage critical resources and the transformation of resources based on owner-managers' knowledge (e.g. Sparrow, 1998). Others have suggested that small business learning may be more closely associated with the development of competence than performance (Chaston and Mangles, 1997; Argote and Miron-Spektor, 2011). On the other hand, some research has focused on capital elements for convertibility building relevant models (e.g. Firkin, 2001; Stringfellow and Shaw, 2009). Shaw et al. (2008) note that there has been less focus on the convertibility of such capital for value creation. There appears then to be scope for this thesis to recommend a new direction to the discussion in the shape of a mix exploration, proposing a model of SMEs which considers the centrality of the owner-manager through his knowledge, experience and thinking processes in the entrepreneurial capital convertibility process. The process of entrepreneurial capital convertibility in SMEs as opposed to bigger firms has been argued to be more holistic with room for continuous adaptation (Sparrow, 2001) based on owner-managers' knowledge and experience.

1.2 Discussion of the main concept in the thesis

The purpose of this section is to introduce the main concepts used in the thesis. These consist of SME, entrepreneurial capital, knowledge, management and knowledge management.

1.2.1 The SME

Previous research has regarded an SME as a company that has a small market share or niche (OECD, 2010). It is usually regarded as a company that is run by its owners in an informal way rather than through a formalised structure (OECD, 2010). It is autonomous of outside control when taking principal decisions.

The Companies Act of 2006 suggests that a business is small if it satisfies at least two of the following: a revenue total of up to £6.5 million; a statement of financial

position total of up to £3.26 million; and less than 50 employees. A medium sized company; revenue total up to £25.9 million; a statement of financial position of up to £12.9 million; and less than or equal to 250 employees. The Department of Trade and Industry (DTI, 2013) defines micro businesses as comprising between 0 - 9 employees; a small company 10 - 49 employees and a medium sized company; between 50 - 249 employees; as shown in Table 1.

Table 1.1: SME terminology

Number of Employees	Business Type
None	Sole proprietor
1-9	Micro
10 - 49	Small
50 – 249	Medium-sized

An SME is defined for this study as one having between 10 and 250 employees whose capital is at least 75% owned by the managers and staff. It covers an industrious undertaking by an individual, considered a leader because of his ability to perceive opportunities and act on them (Shane and VenKataraman, 2000). Leadership, being a process of social influence and a subset of management, is classified according to individual traits, function, behaviour, power, vision, charisma, intelligence and self-confidence (McGee et al., 2009) of the person who is known as the owner-manager. These characteristics will be called into play for an entrepreneurial mindset competence and appropriate leadership style for business success. Initially, SMEs are seen as an outcome of the entrepreneurship process, which may result in growth.

SMEs, however, have different characteristics in different sectors and therefore there is hardly any general definition obtainable (Storey, 1994). Blaug and Lekhi (2009) report that SMEs are a big player in economic growth and innovation, employment

and the turnover of economic wealth. In addition, they aid emerging sectors and operate as a medium of change in existing sectors (e.g. Peña, 2002). Brinkley (2008) points out the significance of SMEs in the knowledge-sector and the wider economy providing more than 50 per cent of jobs. SMEs are the leading actors in private education, health services and business services. However, they are not very vital in some technology-based manufacturing industries given the high capital investments required.

1.2.2 The structure and management of SMEs

Blaug and Lekhi (2009) indicate that notwithstanding the importance of SMEs, the fact is that most are designed to die or stagnate. Studies reveal that half of SMEs fail after their first anniversary, while only a lesser per cent endure after their sixth anniversary (Peña, 2002); and it is uncommon for existing SMEs to experience development of any magnitude, as a lot of owner-managers actively pursue stagnation. An amount of attributes are particular to SMEs distinct from the large businesses (Penrose, 1959). These differences suggest major implications for developing and analysing the most appropriate models and strategies for SMEs. SMEs have features like an innovative owner-manager with little formal business experience, focuses on a small narrow range of products and services and operate flexibly (de Bruin-Judge, 2006). Therefore, in striving to be competitive, the owner-managers of SMEs will need to be entrepreneurial in using any identified traits to gain advantage. The aptitude to recognise a probable opportunity and the sense of timing to snatch it are critical for survival and will depend on the entrepreneurial dispositions of the owner-managers. As noted by Schumpeter (1934), a free willing spirit attitude is prevalent in many studies, as creativity beckons a dynamic behavioural pattern. Being entrepreneurial, an owner-manager will therefore be involved in idea creation, sourcing finance, innovation, allocating resources among alternative uses and making decisions (Firkin, 2001; 2003).

These entrepreneurial traits are increasingly warranted in a world of evolutionary tendencies, where economies require businesses to function in numerous environments and success is no longer based solely on novel technology and marketing; rather, it depends more on knowledge and experience to carry out heroic actions. Considering the business model proposition, returns are possible when core capabilities are realised, acknowledged and used to create value for customers through valued networks in continuous transformation. In terms of owner-manager's knowledge, some SMEs are based on the highly specialised skills of their founders based on their past experiences. Storey (1994, p121) identified entrepreneurial characteristics, strategy and firm age, sector, size and ownership as factors that need to be combined in studying SMEs knowledge. Such SME knowledge is embodied in the owner-manager for his use and needs to be identified to be entrepreneurial. Some SME research has focused on the entrepreneur (Chell, 2008) with time-related patterns connected to personal age and the life cycle of enterprises. It may be that entrepreneurs are sometimes special people, but often become special as a result of their knowledge and experience in taking the role on. The SME is therefore characterised by heavy reliance on the owner-manager's knowledge, sources of information, social networks, decision making capacity and personality as a leader (Culkin and Smith, 2000). Firkin (2001) considers this as entrepreneurial capital embodied in the owner-manager considered as a key resource. Rather than articulate a knowledge base, as in a large firm, more emphasis might be placed upon notions of self-correction and dynamic processes, through which its owner-managers adapt to the environment. The volatility of an SME in regards to environmental changes therefore provides a focus on flexibility, rather than routine (Sparrow, 2001).

Through their life cycles and based on their objectives, SMEs therefore need to adapt knowledge processes and convert a mixture of their capital to reflect a dynamic environment, which may involve formalisation of processes and structures. Owner-managers may carry with them knowledge and experiences gained in

production, marketing and general management expertise, which may affect their business outlook. This may mean that advisors from external agencies associated with knowledge management or organisational learning give SMEs access to the type of thinking on these subjects common to other business, especially those where models have been applied (Scarborough and Zimmerer, 2006).

1.2.3 SMEs in a technological age

Many studies have recognised the economic significance of SMEs to the economy as employers, wealth creators and innovators (OECD, 2009). However, they have been slow to integrate information and communication technologies (ICT) into their activities (Sparrow, 2001) and therefore need to adapt to the new technological age (Matlay and Martin, 2009).

This apparent hesitancy may be accounted for partly by the great variety of SMEs, the differing social and economic purposes of those involved and their varying attitudes to technology. However, it has been recognised that the informal, person-centred internal decision processes of SMEs are different from those observed in larger firms (Culkin and Smith, 2000). Knowledge base of SMEs might even work to their advantage when combined with processes and characteristics that facilitate innovation. This could then call for a continuous process of design thinking for success.

1.2.4 Success factors in SMEs

Success is a relative rather than an absolute term, in that different people use varied criteria to define it. Jennings and Beaver (1997) have pointed out the diverse values of different stakeholders in the SME. The SME management process is highly personalised around the needs and interests of the owner. Its strategy is adaptive to, rather than predictive of, trends. Storey (1994) describes how small firms face greater uncertainty in the market as price takers. They are seen as more likely to

produce fundamentally new innovations and change than larger firms. Even when success is narrowly defined in terms of survival, profits or growth rates, it is easier to demonstrate the symptoms associated with success rather than causes of it (Jennings and Beaver, 1997).

According to Chaston and Mangles (1997), earlier researchers looked at the main types of explanatory factors for growth in small businesses: entrepreneurial personality, SME development and management activities. They conclude that whilst each of these approaches produces insights, they nonetheless fail to offer useful predictions about growth in the convertibility process (Firkin, 2001).

1.3 Entrepreneur and entrepreneurial capital convertibility

Schumpeter (1934) described the entrepreneur as a 'wild spirit', who organises and directs the factors of production to earn a return in a process of entrepreneurship. As a major factor in production, and drawing from Bourdieu (1986), Audretsch and Keilbach (2004) define entrepreneurship as an action, process or activity and consider it as a 'social process'. Firkin (2001), however, considers the sociological view as one of the main components of entrepreneurship capital, while Stringfellow and Shaw (2009) build on these arguments, putting social capital at the pinnacle of entrepreneurship capital. House et al (2004), in considering cultural aspects, argue that societies differ in being collectivist, individualistic or mixed, and therefore entrepreneurship convertibility will vary in different contexts, making leadership and motivation theories crucial elements in considering entrepreneurship capital in SME development. Convertibility in itself is defined by Bourdieu (1986) as a resource transformation process based on a free thinking processes influenced by the owner-manager's capital or knowledge awareness and the drive to use it to earn a reward.

Entrepreneurial capital has also been described in terms of those factors or events which make it conducive to new idea creation by individuals or teams (Audretsch and Keilbach, 2004). New idea discovery will warrant action by decision makers, which

may lead to option generation. This is linked to economic development and widely determined by national institutional frameworks which influence owner-managers' perception of the environment. Such perceptions and attitudes of owner-managers or teams towards opportunities assume the spillover of knowledge at no cost to the public in an uncertain and dynamic environment. Converting this idea into action will depend on motivations and how each owner-manager views the environment, and also on judgments based on fundamental attitudes and beliefs, seen as main factors for thought and consequent actions. According to Shaw et al (2005) entrepreneurial capital is the combination of financial capital and non-financial capital possessed by owner-manager which affects the entrepreneurial process through networks and relationships. Non-financial capital includes the physical, organisational, technological, human, cultural, social and symbolic capital of owner-managers and their businesses. In considering convertibility, Firkin (2001) therefore focuses on the resource based view of entrepreneurship (Barney et al. 2011) that considers various components (human, cultural, social and economic). Neira et al (2008) attest that the main capital elements include organisational, psychological, cultural and institutional assets with a focus on owner-manager personality. Entrepreneurial capital convertibility is therefore an application of an owner-manager's mind or knowledge of resources and experience to transform new knowledge and products in a value added way for continuous wealth generation. It will therefore warrant a challenge at a source of thinking, through owner-manager and SME learning and experience for a new way of thinking, behaviour and subsequent actions in a dynamic world knowledge economy. Knowledge of self and environment therefore becomes very vital in the process of convertibility. Together with their personal experiences, owner-managers can use knowledge to aid in capital convertibility and meet required objectives.

1.4 Knowledge

From the resource-based view, entrepreneurial capital is integrated to focus on the intellect of owner-managers which is represented by their knowledge. The discussion then takes on a knowledge based view in modelling entrepreneurial capital convertibility. A preliminary task in thinking about knowledge is to differentiate use of the related terms, data, information, knowledge, action and judgements. Sparrow (1998) suggests that knowledge is partly about representing information from a specific standpoint. But what if some knowledge cannot be represented? The representation argument then fails to embrace the fundamental reality of the nature of knowledge.

Davenport and Prusak (1996) offer the following definitions for the main terms. They describe data as a combination of events like transactions and message, in documentary communication. Knowledge, on the other hand,

“...is a fluid mix of framed experiences, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the mind of the knower. In organisations, it often becomes embedded not only in documents or repositories but also in organisational routines, processes, practices and norms.”

(Davenport and Prusak, 1996, p5)

This type of definition goes much further than common usages of knowledge, as knowledge of facts. In this view, knowledge could be seen as personal ability that is receptive to diverse situations. Such knowledge embodies the elements of capital through intellectual capital of owner-managers and can be divided into tacit and explicit forms

1.4.1 Tacit knowledge

This is implicit knowledge; something an individual knows from experience, from other people, or from a combination of sources (Nonaka et al 2000). An individual is typically unable to say precisely, for example, how they perform a skilled activity, but can demonstrate inferred knowledge by being able to perform skills effectively and reliably. Tacit knowledge is very confidential and ingrained in action. It consists of technical know-how, as well as mental models, beliefs and perspectives (Sparrow, 1998). Free access to information improves redundancy of information and expands knowledge, as teams may play a crucial part by providing a shared context in which individuals can interact with each other.

1.4.2 Explicit knowledge

In contrast, explicit knowledge is externally visible, in patents, courses, and the advice passed down from one person to another. To add value to knowledge, it will need to be converted from one form to another or a movement between the tacit and explicit for its effective management.

1.4.3 Knowledge management

The main objectives of knowledge management are to make a business 'act intelligently' to protect its viability and success as well as realize the worth of its owner-manager's knowledge (Wiig, 1997, p40).

This places a premium on the practical outcome of successful knowledge use in an SME context. Nonaka and Takeuchi (1995, p62) recognise convertibility between tacit and explicit knowledge through what they term 'the SECI process in socialisation, externalisation, combination and internalisation'. Through the application of this process, knowledge management can be regarded as a conscious

attempt to use the tacit and explicit knowledge present in an organisation to pursue long term goals.

1.4.4 SMEs and the management of knowledge

In SMEs, knowledge and know-how have long been prized such as valuing specific skills and trade secrets have been carefully kept as SMEs have apparently had an advantage over the rigid larger organisational hierarchy because they have been able to be more flexible and adaptive to new trends. Beijerse (2000) reports that knowledge management in SMEs tends to take an operational rather than a strategic form. Most SME approaches are characterised as lacking in investment in KM approaches and systems. Gibb (1997, p14) notes that attempts to link UK SME training more closely with performance and competitiveness seems to have made little progress. This may be attributed to lack of time, poor customisation of processes and too much jargon. Hence individual SME approaches were attempted, but too often failed to unite tacit and explicit approaches to learning and knowledge. Owner-manager and SME learning could involve everyone in context and combine different types of learning processes (Gibb, 1997), as well as take a more strategic focus.

Shelton (2002) reports that some authors have attempted to apply empirical tests to some conceptual frameworks on knowledge management in SMEs. There is a need to identify various resources and understand the production of knowledge qualitatively and quantitatively in SMEs, examining how these respond to environmental stimuli in shaping a strategy for knowledge management development.

1.4.5 Introducing KM into an SME

Many researchers have offered numerous models to guide the process of introducing KM into an organisation in recognition of the variety of requirements that exist and of the need to tailor solutions to fit situations. This has often been done in a large business context. Introduction of KM into an SME will be supported by the owner-manager's drive and capabilities, aided by environmental factors (Wiig 1999).

1.5 Rationale for the study

Hence, set in the context of a dynamic economic, the environment presents both opportunities and threats for SMEs. Low consumer confidence affects the supply chain, leading to economic decline of many once flourishing industries, as well as the failure of SMEs, who are seen as the drivers of economic development. The issue of owner-managers' identification and use of their knowledge and experience to be entrepreneurial in capital convertibility is a matter of priority. SMEs can only survive by being distinctive in satisfying customers' needs and wants (Kotler et al., 2008); they will have to identify their critical success factors (Stringfellow and Shaw, 2009) and be innovative to outsmart competitors. More research is therefore focusing on the owner-manager (Matlay, 2009), and the stock of resources at his disposal to use in creating wealth and survive in a dynamic environment, especially on a regional basis (Svensson, 2010). This thesis will seek to differentiate and discuss capital individually using the resource based view of entrepreneurship, integrate these entrepreneurial capital elements using the knowledge based view as suggested in relevant literature and build a model to explain convertibility through a cause-effect relationship in SMEs.

1.6 Research aim and objectives

The aim of this thesis is to develop a model for entrepreneurial capital convertibility dynamics in SMEs. The focus is on the owner-manager and the capital at his disposal. The variables include metrics on the strategy map such as financial, customer and market growth and factors that make up entrepreneurial capital and aid in their convertibility.

1.6.1 Objectives:

1. To investigate the concepts of entrepreneurial capital as presented in specialist literature.
2. To investigate the concept of convertibility dynamics and its relationship with entrepreneurial capital.
3. To synthesise and demonstrate these relationships amongst SME owner-managers' knowledge and experience.
4. To provide a model of entrepreneurial capital convertibility dynamics of SMEs.

1.6.2 Origins of the study/thesis in earlier works

This study emerged from earlier work by Bourdieu (1986) on capital accumulation, Firkin (2001; 2003) on forms of capital, Sparrow et al. (2001) on knowledge management in SMEs and Matlay (2008) on learning. It is expected that such studies will provide SMEs with a means for enhancing their knowledge-based competitive advantage, and the partners who seek to assist them in the adoption of knowledge management, with a focus on specific problems in specific settings. The small business sector in the UK has had problems for many years, such as late payment of bills and management of working capital (Sparrow, 2001). Government support has therefore been made available, but on more tangible outcomes of

interventions to the detriment of less tangibles. Sparrow argues that future business success may lie in less tangible features such as management expertise or the alignment of brand with human resource development practices and by regarding decisions and actions as positioned within the specific setting of the perceptions of owner-managers. This implies a need to understand the unique dynamics in play within a particular context by using an innovative mixed methodology. On a more owner-manager level and considering personal traits, some SMEs may need to have much more autocratic control, whilst others may require more participative styles. However, results may suggest that those adopting autocratic styles make quick decisions and are more entrepreneurial and market-oriented than those adopting a participative style. Sparrow concludes with a call for longitudinal studies of KM processes in SMEs.

1.6.3 Contribution of the study

This thesis makes a solid contribution to the entrepreneurial capital convertibility literature by modelling entrepreneurial capital convertibility dynamics in SMEs. It addresses the concerns of Bourdieu (1986), who argue that there is still a gap in the literature in regards to the linkages between entrepreneurial capital and SME performance, specifically putting this in the context of SMEs and bridging the gap between them and larger firms' adoption of best practice. The measures in this study are based on the human, cultural and social capital categorised as intangible, and the economic capital which comprise the owner-manager's knowledge.

Particular focus is on cultural capital in terms of owner-managers' knowledge and past experiences, what motivates them and their desire to continuously reflect, learn and adapt such knowledge processes in a dynamic economy. In addition, it integrates the ideas of dynamic economy and entrepreneurial capital convertibility extended from the resource based view (RBV), which take into account the development of internal and external networks, SME learning and the importance of finance as a means for firm survival. With regard to capital resources, this thesis

models entrepreneurial capital convertibility in SMEs by the operationalisation of entrepreneurial capital in a cause-effect manner. The study provides a combination of theoretical implications and an innovative mixed approach to entrepreneurial capital convertibility in SMEs. This will contribute to the expanding body of entrepreneurial capital literature, with a tested methodology for valuing knowledge assets.

1.6.4 Practical purposes of the study

The practical implication of this research is the exploration of issues associated with owner-managers' knowledge and past experiences, convertibility and KM intervention in SMEs in the West Midlands. The research aims to construct an account of the processes in knowledge management development with owner-managers of SMEs in a face to face self reflective and dynamic environment. The proposed model raises questions for further research and practical support in the field of entrepreneurial capital convertibility to local agencies and businesses, as well as recommendations for SME support mechanisms through knowledge audits.

1.6.5 Theoretical purposes of the study

The thesis aims to contribute to theory by developing a mixed account of owner-managers' main resources and their convertibility in the SME. Compare to other work in entrepreneurial capital, it takes a more psychological and sociological approach and considers a new theoretical contribution grounded in the experience of working with SMEs on KM implementation. Concepts developed from these studies are intended to be capable of analytical generalisation. What emerged from this was the significance of audits in KM implementation, which influence entrepreneurial capital convertibility processes in SMEs.

1.7 Structure of the Thesis

This thesis is divided into seven chapters, with the introduction as the first. The other chapters are ordered as follows:

Chapter 2 presents the theoretical background in the study of entrepreneurial capital in order to contextualise the sphere of entrepreneurship for this thesis. This chapter looks specifically at convertibility, the environment and the issue of entrepreneurs and their capital in a dynamic economy, highlighting 'motives'. It reviews the extant literature on entrepreneurial capital, with a discussion of possible performance metrics. The chapter concludes with a brief discussion of why entrepreneurial capital warrants consideration, linking it with the intellectual capital of owner-managers.

Chapter 3 develops the discussion of intellectual capital and by considering the knowledge-based view; it introduces owner-manager's knowledge by reviewing the literature on knowledge and its management, with emphasis on their thinking and its role in galvanising convertibility for enterprise growth. The final section considers the measurement of entrepreneurial capital based on strategic and design thinking using the strategy map and the need to rethink processes respectively. The chapter concludes with an overview of how entrepreneurial capital convertibility can be applied to business growth in a pragmatic way, based on converging management and marketing perceptions for entrepreneurial thinking and leadership. Based on the theoretical underpinnings outlined, a conceptual model of entrepreneurial capital convertibility related to performance is developed.

Chapter 4 highlights the research design, the methodology employed and the research propositions developed. It addresses the unit of analysis, research design, research methods for data collection, development and administration of the questionnaire, non response bias, methodology for data analysis and ethical issues.

Chapter 5 presents the mixed results generated for the study and their analysis based on both the quantitative and qualitative data on a case study basis.

Chapter 6 discusses the results using the theoretical background on which propositions were based and the findings of previous empirical studies conducted on the issue to support the discussion.

Chapter 7 draws a conclusion from the research findings, and discusses the key implications for owner-managers of SMEs. It proposes a model for entrepreneurial capital convertibility in SMEs. The main contributions of the study are outlined; recommendations made and possible directions for further research are indicated.

1.8 Conclusion

This chapter has provided an introduction to the origins and purposes of the research, outlining the key terms used, the rationale and contribution, as well as the theoretical and practical implications. The key theoretical contributors are outlined in table 1.1, which provide a structure for the thesis. The following chapter explores some major views of entrepreneurial capital convertibility in the established literature which are of special relevance to this study.

Table 1.1: Important Research Contributions

Area	Authors
Explicit, tacit and implicit knowledge	Polyani (1966), Nonaka and Takeuchi (1995), Grant (1996)
KM in SMEs	Sparrow (1998), Beijerse (2000), McAdam and Reid (2001), Martin et al (2002), Sparrow and Patel (2006), Wong & Aspinwall (2004), Kaplan and Norton (2004), Martin and Hartley (2006), Brown (2008), Clark and Smith (2008), Bonabeau (2009), Arora (2009)
Capital convertibility	Bourdieu (1986), <i>Henderson and Clark (1990)</i> , Firkin (1993: 2003), Tether (2005) Stringfellow and Shaw (2009), Shaw et al., (2005), Arora (2009),
The entrepreneur	Schumpeter (1934), Chell (2008)
The owner/manager as entrepreneur	Chell (2008)
Economic capital	Lam et al (2007)
Social capital	Bourdieu (1986), Burt (1992), Putnam (1993) Nahapiet and Ghoshal (1998), Portes (1998), Adler and Kwon, (2002) Davidsson and Honig, (2003), Stringfellow and Shaw (2009), Shaw et al., (2005), Neira et al (2008)
Human capital	Kolb (1984), Bourdieu (1986), Argote et al. (1990), Bruderl et al (1992), Becker, (1992); Shanahan and Tuma (1994), Liebeskind (1996), Hitt et al (2001), der Linden (2009), Matlay (2005), Matlay (2009), Lan and Wu (2009)
Cultural capital	Argyris and Schoen (1978), Weick, (1969), Bourdieu (1986), Schein (1990), Sparrow (1998), Sparrow (2001), Ardichvili et al., (2003), Nonaka & Takeuchi (1995)
Intellectual capital	Stewart (1991), Subramaniam and Youndt (2005), Montequin et al (2006), Bakhru (2008)
Dynamic capabilities	Nelson and Winter (1982), Cohen and Levinthal (1990) Mintzberg (1994), Teece et al (1997),
Leadership	McGregor (1960), Gerstberger (2007)

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The purpose of this chapter is to build on the previous literature and conceptual frameworks from the relevant published work on entrepreneurial capital and relate it to owner-managers' knowledge and entrepreneurial capital convertibility in SMEs.

2.1 Convertibility

According to Bourdieu (1986), convertibility is synonymous to transformation of one capital form to another. Capital is defined by Bourdieu as accumulated labour, which when allocated on a personal basis, produces a reaction in the form of living labour. Convertibility of capital is seen as wealth that grows out of the process of circulation and forms the basis for private ownership of means of production for private profit in a free market. Bourdieu argues that this is based on social theory and experience that emerges from the compounded interaction between human, their perception of value and new idea generation. Argote and Miron-Spektor (2011) considers such experience in an organisational context to transform resources and create knowledge. Lam et al. (2007) note that Bourdieu uses the concept of symbolic capital to justify the perception that different forms of capital take from the views of different stakeholders. This concept indicates that even when owner-managers have indistinguishable amounts and types of resources, alternative values may be placed on them, which influences the convertibility process. Extending this to owner-managers and SMEs, it is seen as a continuum of tangible to intangible and vice versa, as represented in Figure 2.1, of convertibility from 'what I have' to 'what I know', 'who I am' and 'who I know'.

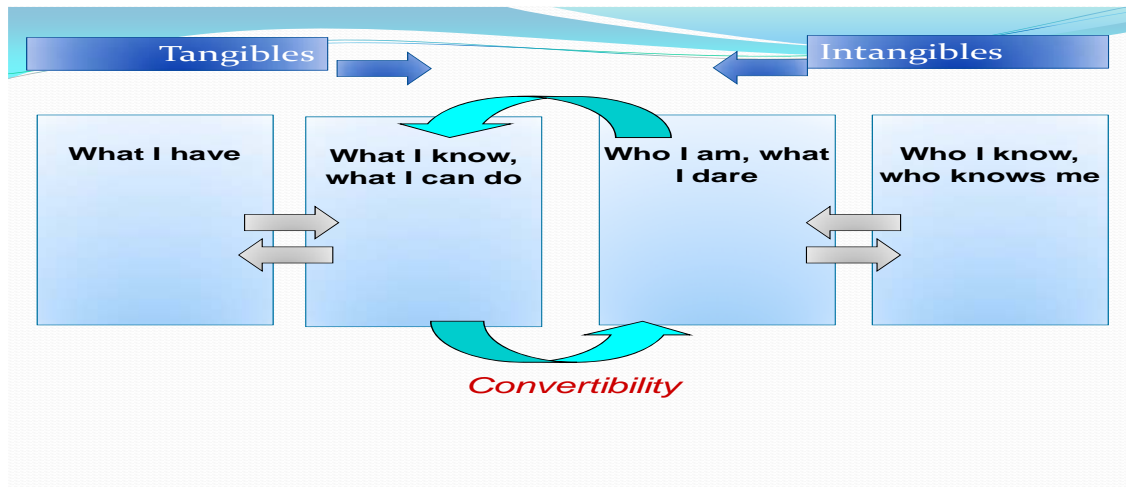


Figure 2.1: Convertibility process

From this viewpoint, Firkin (2001) narrates that the concepts of entrepreneurial capital and its transformation is based on the total resources that a person owns and the value placed on it. He therefore considers convertibility as a dynamic process over the life cycle of a business and the owner-manager needs to synthesis his knowledge and experiences which may lead to entrepreneurial decision-making.

According to Firkin, this concept of 'entrepreneurial capital' is prominent because business tenure is predicated on the access and use of financial and non-financial resources to reinforce experiences and predict management styles. Bourdieu (1986, p47) identifies owner-managers as having four types of capital: economic, social, cultural and symbolic, which can be converted. Lam et al. (2007) suggest that these capitals are shaped by objective and subjective structures producing various experiences. Many studies are therefore focused on developing an understanding of the relationship between owner-managers and knowledge of their capital. Consequently, owner-managers need to reflect on their knowledge and experiences, creating opportunities in the possession of a mix of capital. Entrepreneurial capital is therefore based on the diverse capital attributable to an owner-manager and the perception of worth placed on such capital by other stakeholders (Firkin, 2001) for subsequent conversion.

Lam et al. (2007), however, report that symbolic capital and the convertible nature of the diverse forms have received little empirical research attention. On the other hand, individual forms like economic, human and social capitals have been studied widely (Firkin, 2003; Shaw et al., 2005) in entrepreneurship literature. These need to be ascribed to the owner-manager, being an organiser of factors of production and central in the process of convertibility. Such centrality has been attributed to those known as entrepreneurs.

2.2 The entrepreneur

Since the word “entrepreneur” was postulated by French economist Jean Baptist Say, it has been given many definitions, each fitting the condition of its time. Say (1803) suggests that it is one who undertakes a venture, acting as intermediary between different kinds of resources. Others have described the entrepreneur as an independent, self employed person creating his own unique business, building a team and creating practical strategies to optimise limited resources, perceived as a generator of ideas for value creation at a point in time with different mixes of factors of production. This person is also seen as a leader who adds value to inputs for a given output. In classical economics (Smith, 1910), the entrepreneur is considered as someone who organises and directs the factors of production to earn a return. This therefore relates back to the definition as one who acts between the intermediaries of capital and labour and continuously strives for a balance through the convertibility process.

The personal characteristics and demographic factors of entrepreneurs have also been shown to have an effect on convertibility (Miron-Spektor et al., 2011); including age, gender, education and past experience (Chell, 2008). In summary, the core characteristics of successful entrepreneurs are those of high achievement, ambition, and persistence. Zimmerer and Scarborough (1998) add locus of control, risk taking,

proactiveness, knowledge and experience, skill at organising, leadership, self-confidence and accountability. Argote and Miron-Spektor (2011) focuses on the experience aspect, which is accumulated over time, as key to this convertibility process of owner-managers to be entrepreneurial. Whilst the concept of the entrepreneur has evolved, it was not until the 1930s that Joseph Schumpeter popularised it as an agent of creative destruction in the innovation of products, services, markets and processes. He states that entrepreneurs are those who change economic orders through new products and services introduction and developing new markets. This therefore connotes a fundamental rethinking of processes and their subsequent adaptations to turbulence in order to succeed as suggested by Matlay and Westhead (2005).

2.2.1 The entrepreneur and success

Levie and Hart (2011) suggest that there can be many reasons to become an entrepreneur. These can be grouped into financial and non-financial factors forming the motive behind success. Entrepreneurs can have many views as to what constitutes a venture. The most success indicators are survival; growth of turnover, number of employees; and profit, turnover and return on investment, which Levie and Hart (2011) link to perceptions of the environment. The main barriers are market failures, government regulations, access to foreign markets, and difficulties in recruiting skilled workers. However, success is very subjective and will depend on motives, personal characteristics and experiences, signalling opportunity and necessity entrepreneurship. It is, however, arguable whether owner-managers are entrepreneurs in the sense of the word or just managers. A link is provided by Argote and Miron-Spektor (2011) where task-oriented owner-managers may be motivated to convert capital in the entrepreneurship process.

2.2.2 The owner-manager and entrepreneurship

According to Chell (2008), owner-managers can be divided according to their intentions and outcomes: “those with entrepreneurial intentions but non-entrepreneurial outcomes are termed ‘unrealised entrepreneurs’; those exhibiting entrepreneurial intentions and entrepreneurial outcomes are ‘realised entrepreneurs’; those revealing non-entrepreneurial intentions and non-entrepreneurial outcomes are ‘realised non-entrepreneurs’; and those with non-entrepreneurial intentions who demonstrate entrepreneurial outcomes are ‘emergent entrepreneurs’” (p11) as shown in Figure 2.2.

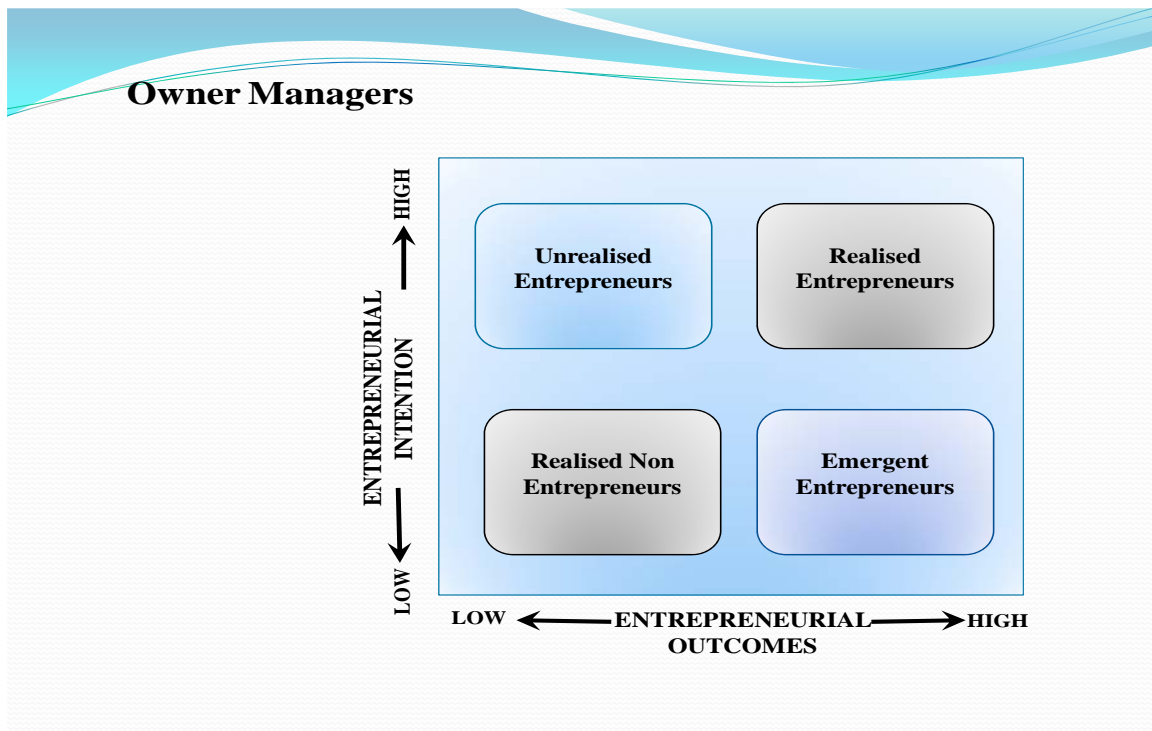


Figure 2.2: Intentions of owner-managers

The contrast that has been made between these types is that while unrealised entrepreneurs have a consistent strategy, emergent ones focus on internal operations. Realised entrepreneurs demonstrate both constant strategy and good internal operations. Realised non-entrepreneurs suggest more personal outcomes,

while realised entrepreneurs emphasise business outcomes. Carland et al. (1984) class owner-managers as either entrepreneurs or small business owners, while entrepreneurs are defined by their goals of profit. Entrepreneurs and owner-managers are, however, managers in their own right, with implications for decision-making and managing the convertibility process.

2.2.3 Personal characteristics of owner-managers

Entrepreneurship research has mainly focused on the characteristics and experiences of individual owner-managers as determinants of success, including previous experience and learning (Argote and Miron-Spektor, 2011), knowledge (Matlay and Westhead, 2005) and social background (McFayden et al., 2009). Abdullah et al. (2009) suggest that there have been a number of studies which describe the attributes of owner-managers as entrepreneurial in terms of traits, social psychological and behavioural approaches. A trait-based perspective is important, focusing on owner-managers' personality. The social psychological perspective, on the other hand, suggests exterior factors or 'turbulence' (Matlay and Westhead 2005) that influences entrepreneurial action which places the process within the wider social setting (Levie and Hart, 2011). The behavioural context focuses on understanding attitudes and past experience in determining success.

Research report that owner-managers and firms that are entrepreneurial oriented tend to do better (Lee and Peterson, 2000) based on the convertibility processes and decision-making activities employed by owners (Lumpkin and Dess, 1996; 2001). Lumpkin and Dess (1996) conceptualise entrepreneurial orientation to include risk-taking, proactiveness, autonomy, innovativeness, and competitive aggressiveness where risk-taking, proactiveness and innovation are prevalent. Such entrepreneurial orientation is perceived as a process reflected in the convertibility of capital (Covin and Slevin, 1991).

Audretsch and Keilbach (2004) describe entrepreneurial capital in terms of these traits, which make it possible for the process of convertibility through creativity and innovation to flourish, tied to the actions of owners who take the strategic decisions to invest in a combination of resources at their disposal for wealth generation. Stringfellow and Shaw (2009) on their part conceptualise entrepreneurial capital by linking it to a sociological viewpoint which integrates owner-managers and the environment for business growth. van der Linden (2009) portrays entrepreneurial capital and its interrelationship to include economic, social, cultural and human aspects giving specific examples in convertibility as shown in Figure 2.3.

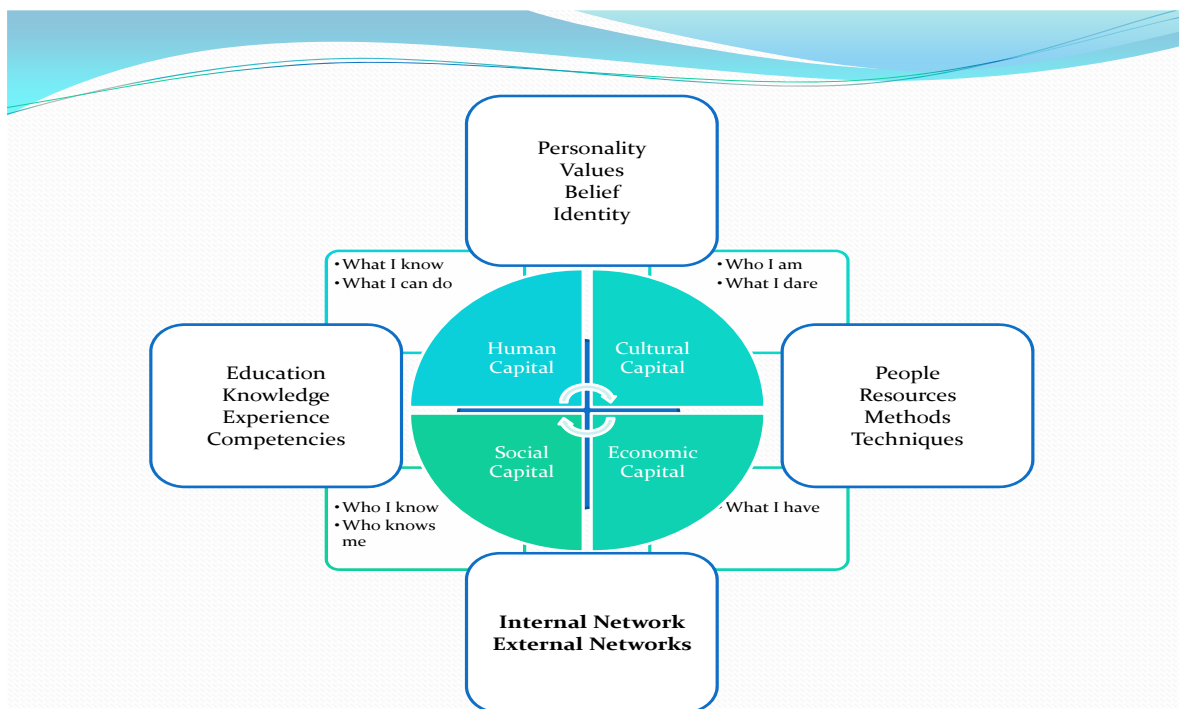


Figure 2.3: Entrepreneurial capital components

Firkin (2001), on his part combines cultural and human capital into personal capital, suggesting that this comprises a substantial level of human capital divided into general and specific levels. Secondly, he adopts a psychological view in which capital spans both the personal and social dimensions and therefore considers non-financial capital in terms of personality embedded in social relationships. Personal

capital could therefore be linked to the owner-manager's personality. Furnham (1992, p15) states that

“...personality refers to stylistic consistencies in behaviour, which are a reflection of inner structure and processes.”

The owner-manager is therefore entrepreneurial when there is enough public information to label him as such based on his personality. This therefore relates mainly to a trait-based perspective and the common traits studied have been risk taking, the need for achievement and locus of control (Chell, 2008). In contemporary times, entrepreneurial traits have been extended to include pro-activeness, self efficacy, intuition, social competence, absorptive capacity, innovation and competitive aggressiveness. In agreement with Bourdieu (1986), Chell therefore suggests that entrepreneurial traits are a social construct which are accumulated over time based on experience and knowledge. In these terms, sense is made of owner-managers' behaviour in the context of the entrepreneurship process. These are related to the driving force for entrepreneurial capital convertibility based on motives of the owner-manager. It is therefore relevant to discuss some of these traits.

2.2.3.1 Need for achievement

McClelland (1961) suggests that the main aspect of entrepreneurial behaviour lies in the need for achievement. This is a drive to achieve a goal, suggesting that such people are high achievers. Such owner-managers like to take a lead in finding solutions to problems, preferring hard work to meet goals that are challenging and are not beyond their capabilities (Chell, 2008). Carland et al. (1984) suggest that owner-managers classed as entrepreneurs score high in need of achievement, risk-taking and innovation than both corporate managers and non entrepreneurial owner-managers.

2.2.3.2 Locus of control (LOC)

Chell distinguishes between owner-managers with a high LOC and those with low LOC. Owner-managers with a high internal locus of control are those who believe they are in control of their destiny and those with an external locus rely on fate (Chell, 2008). Chell, however, suggests that this concept could be a learnt behavioural response rather than a trait and it may be necessary to find out the circumstances that can affect the development of these specific responses in entrepreneurs. The expectation is that most owner-managers have a high internal LOC.

Changes in business performance provide a chronological aspect that may influence an owner's sense of control. It is therefore related to confidence, decisiveness, judgement and business success. Chell further suggests that managerial processes are an attempt to control and manage the environment. Accumulated experience and knowledge aids these processes in an attempt to be realistic and alert to changes in behaviours and the environment.

2.2.3.3 Risk-taking

Studies have been conducted to establish the primary attributes of the entrepreneur with regard to his inclination to take risks (Brockhaus, 1982). The usual definition of a risk-taker is someone who pursues a business idea when the likelihood of success is low. However, Timmons and Spinelli (2004) suggest that entrepreneurs take calculated risks. Most researchers have made a strong linkage between success and the extent of risk taking, arguing that the successful owner-manager is one who takes calculated risks. In line with a need for achievement, Meredith et al. (1982, p25) suggest that entrepreneurial owner-managers will take calculated risks as they prefer achievable challenges.

Julian and Katz (1968) also report that owner-managers with an internal LOC were medium risk takers compared to those with an external LOC, while Miller and Friesen (1982) showed that those with an external LOC were conservative in their decision-making. The point here is that owner-managers with an internal LOC are more entrepreneurial (Chell, 2008).

2.2.3.4 Awareness

Opportunity recognition is related to a cognitive make up that causes behaviour patterns. From this, it has been noted that entrepreneurial owner-managers think proactively (Bird, 1988) demonstrating awareness of definite information that enables the spotting of opportunities. Alvarez and Busenitz (2001) report that entrepreneurial owner-manager have the potential to recognise new opportunities, assemble necessary resources and exploit them. Shane (2000) argues that the possession of information enables opportunity recognition and needs entrepreneurial confidence and intent as the main qualities that predict convertibility.

2.2.3.5 Entrepreneurial self-efficacy (ESE)

Boyd and Vozikis (1994) propose that ESE is a vital illustrative aspect in determining both the effectiveness of entrepreneurial intentions and the probability that actions will be initiated. These are reinforced in a number of ways like observational learning, persuasion and judgement of the owner's cognition, which may make him/her susceptible to low performance. Perceptions are fundamentals of social learning and self-knowledge that may influence entrepreneurial behaviour and affect opinion of confidence and improve determination. Chen et al. (1998) suggest that ESE involves five key skill areas: marketing, innovation, management, risk-taking and financial control, these being the key differences between intention and action. In their study, they reveal that higher confidence scores are prognostic of the entrepreneurial judgment to start and run a successful business.

2.2.3.6 Social competence

Sociological studies suggest that entrepreneurial-oriented individuals have the ability to network effectively (Chell and Baines, 2000). The question is however asked whether there is a psychological reason for a spirit of partnership and networking ability. Studies suggest that typical managers are considerably more diligent than entrepreneurs and more social; while entrepreneurs were open than managers, though at low significance levels (Envick and Langford, 2000). Baron and Markman (2003) argue that the higher the social competence, the greater the level of success in entrepreneurial ventures. Successful entrepreneurial owner-managers are more likely to have wider social networks, which they use to pursue and exploit opportunities.

2.2.3.7 Intuition

Chell (2008) suggests that the notion that entrepreneurial owner-managers think into the future, as proposed by Kirzner (1973), is a critical element of entrepreneurial behaviour. Entrepreneurs are said to have a sixth sense (Bird, 1988). Bird reports that guided processes underlie opportunity investigation, resource acquirement and goal-setting, whereas intuitive, holistic reasoning inspires vision, gut feeling and a desire to carry out a venture.

This is further reinforced by the point that entrepreneurial owner-managers are able to use judgement in situations of information asymmetry and conduct analysis (Busenitz and Lau, 1996). Findings show that entrepreneurs are generally more intuitive than managers.

2.2.3.8 Innovation

Entrepreneurship literature emphasises the function of innovation in the entrepreneurial process, such as new idea generation and markets. In innovation, issues ranging from the identification of novel knowledge, managing the association and the acquisition of knowledge, integrating existing and new knowledge and developing capabilities for managing such processes overlap with owner-managers' absorptive capacity (Scott-Kemis et al., 2005).

Schumpeter considers an entrepreneur as a key figure in generating the wealth of nations. In the process of innovation, they play a key role by continually absorbing novel knowledge and setting up new production forms and market. Innovation is seen as the execution of a novel product, service or process, marketing scheme, or processes in business practices (Tether, 2005). In analysing these types of innovation, levels of novelty can be distinguished which are new to the individual, team, firm, market or world.

Innovation therefore suggests encouraging novel ideas, through experimentation resulting in new products, services or processes (Miller and Friesen, 1982). The indicators used to gauge innovation comprise the level of involvement in research and development (R&D), the scope of innovation and the qualifications of human capital. For market innovation, use is made of the percentage of total revenue spent on the costs of initiating and realising product market innovation. Another useful technique is investigating the number of new products or service introductions and the frequency of changes in services or product lines (Covin and Slevin, 1989). Regarding technology, the significance is on achieving competences in the latest technologies and production techniques (Lumpkin and Dess, 1996). Saleh and Wang (1993) used questions to synthesise dissimilar efforts and speed in adapting new processes. Owner-managers who display such traits are seen as entrepreneurial.

2.2.3.9 Absorptive capacity

Recognising that much of innovation results from using spilt over knowledge, Cohen and Levinthal (1990) introduce absorptive capacity to refer to business ability to direct the acquisition of knowledge. It considers continuous learning, which involve a great deal of communication with the external environment (customers and suppliers). Using social capital theory, SMEs have to network to access knowledge and capability. According to Cohen and Levinthal (1990), a business' absorptive capacity is its capacity to recognise, acquire, assimilate, transform, and exploit knowledge from external sources, as illustrated in Figure 2.4.

The Cohen & Levinthal Model of Absorptive Capacity

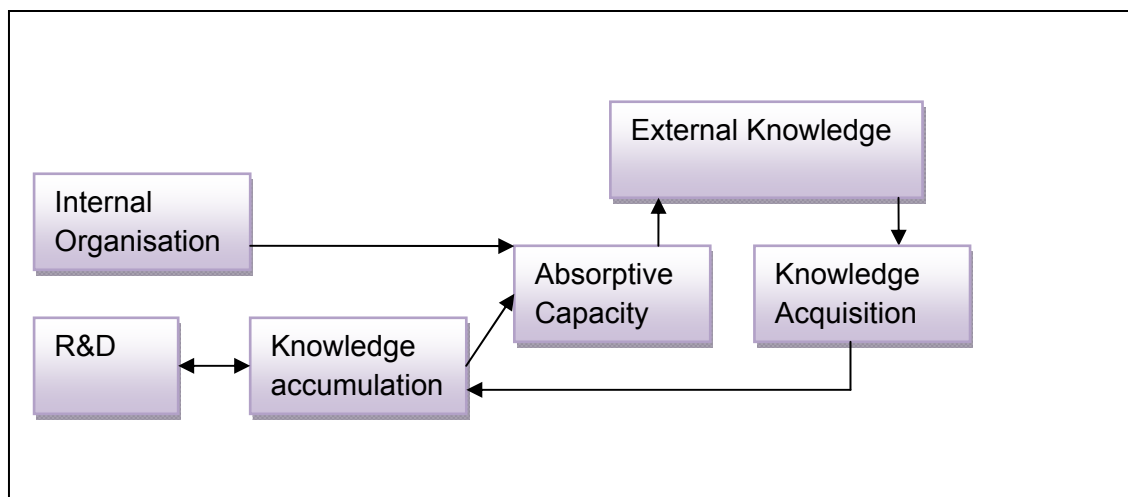


Figure 2.4: Knowledge accumulation process

According to Scott-Kemmis et al. (2005), an important aspect of absorptive capacity is that an owner-manager needs to recognise opportunities from novel knowledge about technology, customer and market trends. Lane et al. (2006) define absorptive capacity as a business' capacity to utilise outwardly held information through learning and using the assimilated information to create novel knowledge and commercial outputs.

The premise is from past knowledge, experience, learning, structure, organisational and external constituents which need to be aligned to business strategy. Its measures include those of human capital in hiring, establishing R&D, developing alliances and the cognitive processes of owner-managers. It is therefore seen as an accumulation over time in accordance with cultural capital theory (Bourdieu, 1986). Abreu et al. (2006) contend that absorptive capacity is the capacity to digest and manage knowledge in order to advance innovation performance and competitive advantage. Zahra and George (2002) use all the dimensions in the firm-level literature and differentiate between 'potential' (acquisition and assimilation) and 'realised' (transformation and exploitation) absorptive capacity. They propose that a business' capacity to assimilate and exploit external knowledge relies not only on R&D spending but also on the knowledge embodied in human capital; organisational structure and practices; and the sort and concentration of interactions with outside partners, providing the confidence to take the first move.

2.2.3.10 Pro-activeness

Pro-activeness is a first mover attitude; the vision and imagination for opportunity seizing (Penrose, 1959). This involves a forward looking perspective in creative chaos. Venkatraman (1989) suggests that it implies anticipating future prospects by looking for novel opportunities ahead of competitors. Pro-activeness therefore relates to a certain extent to initiative-taking, in the sense that initiative implies the vision and anticipation of a desirable future. Thus, making plans by anticipating and pursuing new opportunities is part of the entrepreneurship process. This is related to the entrepreneurial leadership which occurs at all levels of a business and drives the other values. In SMEs, this is vital for success.

However, if we consider pro-activeness as a continuum, passiveness is at one end of the spectrum, as some businesses prefer being followers. This introduces the differential between managers and entrepreneurs. Entrepreneurs are mortal and fail in ventures; Osbourne (2003) states that one source of failure is an unrealistic belief

in the ability of the entrepreneur to overcome fundamental limitations of the company he/she owns and manages. He contends that the notion of heroic men and women creating ventures is often more a trap than reality, and suggests that it is a key reason why many fail. While the critical role of the skilled entrepreneur in shaping organisational outcomes should be honoured, it is also essential to acknowledge the boundaries set by the underlying business concept and capital utilisation characteristics. Pro-activeness has been equated with competitive aggressiveness. However, the argument is that pro-activeness refers mainly to SMEs shaping their environment, while competitive aggressiveness is mainly about how SMEs relate to their competitors (Lilischkis, 2011).

Chen and Hambrick (1995) indicate that firms should be both proactive and reactive in the market at innovation, given competitors and customers. As this supports an importance on initiating activities, it is closely linked to innovation. Morris and Paul (1987) carried out a factor analysis on twelve item innovativeness, risk taking and pro-activeness scale and found two main factors, one capturing both innovation and pro-activeness and the other risk taking. The indicators of pro-activeness used comprise collaboration, incidence and extent, innovation activities designed to protect intellectual property and market structure. Owner-managers exhibiting proactive attitudes are seen as entrepreneurial.

2.2.3.11 Competitive aggressiveness

Stinchcombe (1965) argues that innovative businesses are vulnerable as new to the market and must take steps to legitimise and gain a position. Aggressive attitude and intense competition are crucial to survival. Competitive aggressiveness therefore refers to a business' inclination to directly and intensely tackle competitors to attain entry, advance their position or outperform industry rivals in the market (Lumpkin and Dess, 1996). It is characterised by responsiveness in low prices, being unconventional, analysing and targeting a competitor's weakness and focusing on high value products and productivity through innovativeness and outspending

industry leaders. Some key aspects include adopting a very competitive posture, setting ambitious targets and taking bold actions (Venkatraman, 1989). This can therefore be seen as cutting across all entrepreneurial capital dimensions for value proposition and gaining tangible benefits. The extent and speed of new entry may also signal entrepreneurial traits. The fast follower concept is also necessary to bring new products to the market and speed up the product development cycle time. Followers may, however, imitate in being competitive.

2.2.3.12 Agility and adaptability

In an environment of rapid change, owner-managers increasingly recognise that they need to develop adaptability to respond to different circumstances. The process of adaptability begins with learning and practising cognitive, emotional, and dispositional flexibility (Kemp et al., 2004). Dramatic change often creates feelings of uncertainty, self consciousness, and even fear. Many owner-managers know from experience that even minor change can have a powerful effect. Given the current complexities of information flow and the rapid changes taking place, it makes sense for them to be adaptable. In such instances, routines may be frowned on but Feldman (2004) suggest that a focus on routines may actually increase convertibility rather than a desire to continuously change processes. Such takes into view an incremental adaptation to turbulence. Agility also involves the ability to ingeniously consider both problems and possible solutions (Scott-Kemis et al., 2005).

Owner-managers with most of the above mentioned traits will be considered entrepreneurial in the context of the entrepreneurship process. Also, based on their intentions and outcomes will fall into specific areas of the owner-manager intention matrix. It can therefore be suggested that entrepreneurial capital convertibility will be influenced by an owner-manager's personality.

2.3 Entrepreneurship as a creativity-innovation process

In the creativity – innovation process Schumpeter (1934), owner-managers could play a central role to produce and market new products, generally influenced by traits. Innovation emphasises the role of exchange in the entrepreneurial process in new idea generation and markets through commercialisation of the creative mind of the entrepreneur or conversion from intangible to tangible assets (Miller and Friesen 1983). However, the entrepreneurial owner-manager need not be an inventor and vice versa; he is responsible for convertibility. Interestingly, according to Schumpeter, successful innovation requires heroism, not just of intellect, where economic leadership is stressed against mere intelligence. Such an activity would not be undertaken by ordinary owner-managers but by visionary, driven and committed individuals to survive the uncertainty and dynamic nature of the environment. With success, an entrepreneurial owner-manager will realise exceptional profits which may produce fundamental changes in markets and Acs (2006) considers its influence on economic development. This reinforces such behaviour in an endless circle of convertibility. Entrepreneurship is therefore seen as heroism and in establishing the characteristics of this heroism; research has focused on owner-manager traits.

Bygrave (1999) suggests that the process involves all the actions associated with the perception of opportunities and the desire to pursue them – a way of thinking and acting that adds value for SMEs and other stakeholders. At the centre of the process is the creation of opportunities, followed by a desire to grab them, adapt to changing situation and to recreate further opportunities. It requires a motivation to take calculated risks. Shane and Venkataraman (2000) define entrepreneurship as an activity which includes the discovery, appraisal and exploitation of an opportunity in order to present something novel to the market - in line with Schumpeter's (1934) view. Kirzner also discusses alertness and opportunity identification and Shane (2003) provides the steps in the entrepreneurship process from opportunity

identification, discovery, exploitation to execution which integrates owner-managers personality attributes and the environment, as illustrated in Figure 2.5.

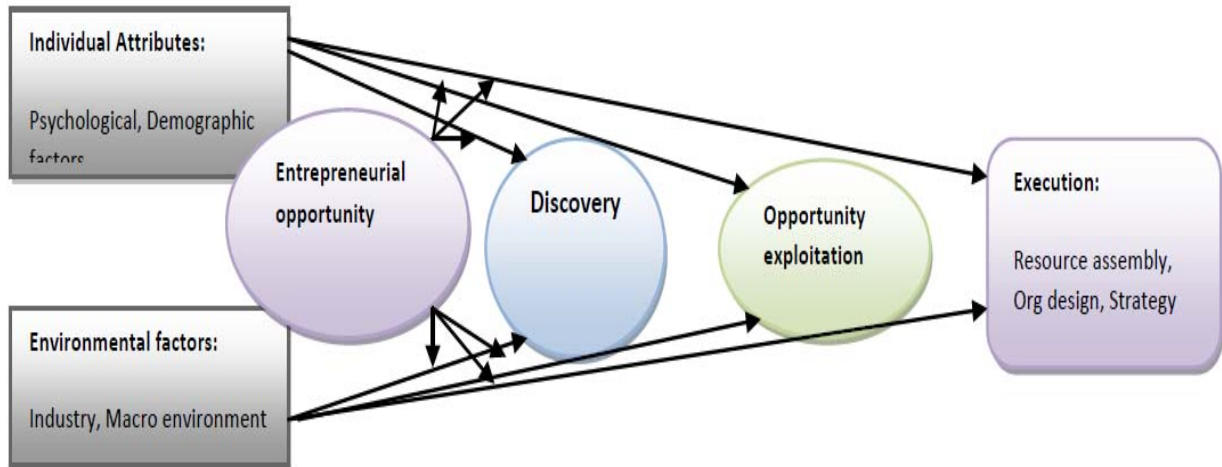


Figure 2.5: Entrepreneurship process Adapted from Shane (2003).

In a deeper analysis of this process, Hofstede (2003) suggest that entrepreneurship can also be considered to comprise an accumulation and transformation of capital, since it reflects a number of legal, institutional and social. The definition of entrepreneurship also considers economic and management areas (Chell, 2008). In view of the economic perspective, Hebert and Link (1989) considers the allocation of resources between alternative uses and decision-making, with the entrepreneurial owner-manager managing these processes. The management perspective involves the process of knowledge management for value creation, which is affected by the past experience and learning of owner-managers (Argote and Miron-Spektor, 2011). This is seen as the subject acting on the object, using special personal traits to generate value. Audretsch and Keilbach (2004) confirm this by portraying the entrepreneurial owner-manager as someone who is alert, is responsible for decisions that affect the location, form and the use of goods, resources or

institutions, thereby relating his/her actions to changes in the macroeconomic environment and vice versa.

2.4 The macroeconomic environment

The macro-environment provides suggestions about competitive behaviour at all levels. Economic conditions and turbulence have been suggested as binding issues that affect owner-managers' behaviour (Casson, 2005). The environment is made up of interwoven systems and sub-systems (Chell, 2008) where there is an institution-to-owner-manager and owner-manager-to-institution relationship influencing entrepreneurial behaviour. Giddens (2002) suggests a close interaction between institutions and owner-managers, converting institutions by the intermingling of various traits, their clashes and synthesis, in what Bourdieu (1993) calls the 'field'. According to Chell (2008), institutions are constituted socially through the rules that distinguish between types of entrepreneurial actions. It is quite reasonable at the macro-level of examination to overstate the dominance of institutional structures in shaping entrepreneurial actions and to underestimate the role of owner-managers in navigating rules, hence creating novel ideas governed by different needs of achievement and the locus of control. The environment creates situations, many of which will be recognisable and customised to the owner-manager and may also create possibilities for which an owner-manager has to be alert, learn and adapt. This freewheeling opportunism allows an owner-manager to develop novel ways of working and enables the development of entrepreneurial traits.

Chell (2008) further states that whilst institutions may benefit and convert capital through the actions of owner-managers, factors like time, location and power separate them. In addition, whilst owner-managers may bend the rules of institutions in an attempt to be entrepreneurial, such rules become embodied in the institution and separate from the owner-manager, because individual control over a particular structure is hardly supreme. Thus institutions are separate of individuals in the collective sense and configure the wider environment of the individual, creating

situations in which the owner-manager has to use his judgment. They may shape, but do not establish behaviour, leaving room for freedom of action and an opportunity for capital convertibility. Giddens (2002) believes that owner-managers may be motivated by a routine which may give an impoverished sense of an owner-manager where predictability is the norm. However, Rerup and Feldman (2011) explain how routines develop through continuous experimentation. According to Chell (2008) routines could create the direct opposite of conditions that would foster convertibility and entrepreneurship and shape institutions.

According to her, life is typified by change and hence, there is a need for owner-managers to be adaptable to the environment and in agreement with Rerup and Feldman (2011), reassessment of current thinking will lead to entrepreneurial capital convertibility. This would enable adaptation in a globalised world with rapid technological change for survival and therefore the behaviour traits of the owner-managers must be considered.

2.4.1 Socio-cultural influences

As part of the wider social environment, the actions and behaviours of owner-managers are interrelated through institutional frameworks. It is therefore relevant to understand holistically how entrepreneurial owner-managers behave in particular situations. Chell (2008) suggests that the basis for adopting this approach is in critiquing positivist methodologies to understand entrepreneurial behaviour, emphasising the subjective nature of different owner-managers, based on the premise that two people cannot have the same experience. In a technological age, interest in new products and new ways will be a direct function of how societies perceive culture and change. According to Schein (1992), culture is a set of basic and shared practices and values that help people find solutions to problems of how to survive, and how to stay together. These influence attitudes which are a person's relatively consistent evaluations, feelings and tendencies towards an idea. Miroshnik (2002) categorises culture into material culture, social institutions, men and the

universe, aesthetics and language. These affect individual values, creativity and the degree of capital convertibility. Organisational behaviour studies indicate that values and culture strongly influence personal behaviours (House et al., 2004).

Such cultural dimensions may therefore influence owner-managers' perception of entrepreneurial opportunities. Using House et al. (2004) studies, it is critical to understand the relationship between cultural dimensions (including risk taking and gender equality) and an owner-manager's perception of the environment. According to Kelley et al. (2011), entrepreneurial owner-managers are not only driven by their own perceptions, but the scores of cultural dimension of those around them, influencing the extent of capital convertibility. To be entrepreneurial, owner-managers need to be willing to take risks and have the belief about availability of opportunities (Levie and Hart, 2011). At the same time, they need customers and suppliers or networks to trade with. If this is in place, businesses can earn a return and pay taxes to the nation state, which in turn helps through investment in social goods to continuously support businesses and also be in a position to compete with other nations (Porter, 1990). Positive societal perceptions about entrepreneurship may indirectly stimulate activities, leading to SME survival. The OECD (2009) suggests that constant and expected programme management is in the interest of all; however, a constant review process is vital to ensure the quality and flexibility of programmes which may impact the relationship between owner-managers, the SMEs and institutions. Institutions need to reduce uncertainties in the macroeconomic environments. Although these are important for the entire economy, such actions will produce benefits of particular value to owner-managers and SMEs.

The trait view of personality has enabled researchers to identify aspects of personality that are vital; how these can be linked to context and their interaction, as well as linking processes to outcomes and to relate owner-manager knowledge and experience to entrepreneurial processes.

2.4.2 The economist's view

Economists are little troubled with the personality aspects of entrepreneurship, although some consider particular qualities (Schumpeter, 1934). This is mainly related to the role that an owner-manager might play in an economy, interpreted in different ways according to a mindset view and whether the owner-manager is perceived as a force of change. Several schools of thought have emerged, from Cantillon (1680-1734) to Casson (1945-date), opening up the possibility of a united approach in the present, such as that of Shackle (1979), dealing with the psychic act of decision-making in conditions of uncertainty. His philosophical argument is set on free will, contrasted with pre-destination as being essential to the human condition. An owner-manager needs to think in order to make decisions. This relates to Knight's (1921) idea of fundamental uncertainty, suggesting that anyone can be entrepreneurial if they use their minds to deal with uncertainty to identify and exploit opportunities.

2.4.2.1 Exploitation of opportunities

Kirzner concentrates on the market process, in which the entrepreneurial owner-manager, through alertness to opportunities (Chell, 2008), converts by bringing the economy back to equilibrium based on differences in perception. However, he agrees that the entrepreneurial act is more subtle. In contrast to Schumpeter, he argues that human effort is guided by choices, but also the inclination to be alert to opportunities, which is needed for entrepreneurial decision-taking process based on information asymmetry. Entrepreneurial profit opportunities exist when such information is used effectively to generate resources (Chell, 2008). Entrepreneurial behaviour therefore comprises gathering, analysing and making decisions based on market information through alertness. Chell further states that in contrast to Shackle, Kirzner's entrepreneurial owner-manager pursue opportunities that already exist and being entrepreneurial is associated with an environmental awareness. Schumpeter, for his part, suggests that the act of creative destruction puts the owner-manager in a

totally uncertain future where, at the point of decision and exploration, opportunities are created and, as they are initially only concepts, they are just possibilities.

2.4.2.2 Economic entrepreneurial judgments

For Casson the entrepreneurial owner-manager is a “judgemental decision-maker”, stemming from analysis of asymmetric information in the market place, and takes decisions about the management of scarce resources. This suggests a differential in decision-making by different owner-managers under similar circumstances. The entrepreneurial owner-manager is someone with a different judgement from others and his gain arises from confidence in risk taking based on that judgement. While most have agreed on the point of the owner-manager creating distinctive value for the customer, there is however debate on how this can be achieved and what helps the owner-managers to be entrepreneurial. On the one hand, there is the Schumpeter’s (1934) school of thought, which argues for the use of personality traits in creative destruction of existing systems for value creation, resulting from new information, changes in technological, social, political, regulatory and macro economic factors. This emergent information could be converted to knowledge in products, services, processes, structures and supply chain dynamics. On the other hand, Kirzner’s argument centres more on existing information for concrete analysis, reconfiguration and opportunity generation, even though on a different judgemental basis, emphasising caution in risk-taking.

While some may have a locus of control and the will to entrepreneurially convert capital, it is widely argued that humans may be more cautious and will always seek better data to convert to information and knowledge before carrying out an action. However, following the Schumpeterian idea of shaping the environment can put an entrepreneurial owner-manager onto a good footing, as more risk gives more returns. Shane (2003) agrees that this high return is based on information asymmetry and uncertainty and will depend on cognitive ability in interpreting the information for knowledge building, timely decision making and exploitation of

opportunities. Schumpeterian approach therefore involves decision making in the entrepreneurship process on both a rational and emergent basis, while Kirzner's approach is mainly rational decision making.

To summarise such aspects, Chell (2008, p245) indicates that entrepreneurial owner-managers are

“...dynamic, proactive, innovative agents of change in economies; base their subjective judgements on imagined future possibilities; are alert to opportunities in the market; confident in judgement and optimistic about success.”

These are the more dynamic aspects of the entrepreneurship process in contrast with the more static ones, which emphasise market equilibrium and perfect information.

2.4.3 The industry environment

The dynamic environment is the pillar for the behaviour of the industry and the SME, as the forces of competition, along with institutions, shape owner-managers' thinking and outcomes at the SME level. Other literature primarily considers the positioning of firms within their industry (Porter, 1990) but lacks an entrepreneurial sense and the likelihood of collaborative behaviour. Chell (2008) indicates that some theories take a practical view of the economic environment that comprises, for example, opportunities that are alleged to be perceived, depending on the owner-manager's intention and outcome. However, they fall short of taking into account the importance of social aspects on decision-making (Granovetter, 1992). Chell goes on to state that evolutionary theories assume that owner-managers have a subjective view of the environment and that through imagination, envisage an opportunity. Institutional practices and elements of culture make possible particular behaviours, shaping the entrepreneurial decision-making in an uncertain environment. Considering social

networks, divergence views in groups may legitimise the beliefs and actions of its members, leading to the generation of different methods of solving problems, which may benefit entrepreneurial decision-making.

Groups may be characterised by the relationships within the group as opposed to being loosely tied or even fragmented (Chell, 2008). Tight-knit social groups are high in trust and this can lead to low transaction costs. However, this suggests routine rather than innovation and connotes lower risk-taking. Loosely tied networks may have little cohesion; negotiate economic relations at arm's length and experience conflicting information. However, they may be better placed in opportunity identification, provided that they can use information in judgemental decision-making (Penrose, 1959; Chell, 2008). Such decision making is seen by Casson (2005, p329) as based on both public and private asymmetric information

In linking groups, Casson considers the environment as encompassing structures that encroach on the entrepreneurial owner-manager and provides an external flow of information that informs decision-making for competitive advantage.

2.4.4 Competitive advantage

Competitive advantage is a position occupied by an SME against its competitors. In knowledge and changing economy, SMEs focused on satisfying needs must increasingly mirror customers' expectations in order to sustain their advantages. For an organisation to survive in today's market, it must satisfy its customers and manage all its resources effectively so as to make judgments, be proactive and competitively aggressive. In order to achieve this, they will need to look within to identify and utilise the resources needed to compete, using tools which influence consumer behaviours to better serve their markets in cultural, societal, personal and psychological mixes at any given point in time.

Once needs are satisfied at the business level, the industry level has to be taken into consideration as it is part of this environmental structure providing network for individuals through which knowledge and information flows (Chell, 2008). At the firm level, each SME endeavours differently to gain a lead by deploying resources. However, the question is whether the SME, as opposed to the market, is the best channel for opportunity exploitation and capital convertibility. Economists suggest that it is only relevant when there is information asymmetry. Another problem arises when trying to predict consumer wants. Decisions rest with the owner-manager, as he/she is the decision maker, who is able to predict wants through confidence in judgement. An SME is capable of realising advantage because it has resources that are not available to other, such as knowledge and experience. Growth is therefore evolutionary and based on accumulated knowledge and learning (Penrose 1959; Bourdieu 1986). Because of continual change, the enhancement of absorptive capacity helps to connect productive services to opportunities. Such changes induce the need to be entrepreneurial and manage processes to achieve desired outcomes (Chell, 2008). However, the SME is always up against restricted access to and raising of required capital.

Alvarez and Barney (2004) take a transaction costs plus resource-based view to construct a different approach to an entrepreneurial owner-manager and SME. In contrast to an evolutionary approach, they consider a Kirznerian position, in which a minute number of owner-managers have knowledge about opportunities associated with asymmetric information. Eisenhardt and Schoonhoven (1996) approach the development of such opportunities by the formation of strategic alliances and in contrast with a transaction cost approach argue that it does not explain the social factors necessary for partnership formation. They rather propose a resource-based view and emphasize the need for cooperation rather than aggression. Within the firm, they point to personal traits such as communication and readiness to change. Additionally, such cooperative behaviour shows a set of external social features such as, reputation and social awareness. Chell (2008) explains that Casson's theory of

the entrepreneurial owner-manager and SME links the owner-manager to the society. Whilst the owner-manager focuses on gaining advantage, it is the turbulent environment that throws up opportunities for exploitation. He argues for a broader view of information asymmetry to be considered and the need for analysis to come to a decision on opportunity exploitation.

In bringing these arguments together, Porter (1990) suggests that the catalysts of competitive advantage are innovation, networking and dealing with behaviours, corresponding with factors affecting stakeholder behaviour. SMEs will therefore need to take an inner look at their latent capabilities to sustain advantage in order to improve creativity, which will inherently improve inert assets and synthesise them with customer requirements. Given the centrality of the owner-manager in an SME, the various aspects have been classified using the resource-based view of the firm in terms of 'what I know' (van der Linden, 2009). Owner-managers may actively search opportunities without regard to the transferable resources they possess. It is therefore prescribed that an owner-manager should not pursue opportunities without a self-audit to know what he possesses as critical success factors. Entrepreneurship requires intuition, while simultaneously thinking about possibilities to exploit resources through a conscious intention to convert financial, social or intellectual capital as it arises, making an owner-manager entrepreneurial.

2.5 The resource-based view of capital

Theriou et al. (2009) suggest that the overriding theories in business strategy during the past decades were those of competitive forces concerned with the external environment, and the resource-based perspective, which was more focused on firm efficiency levels to gain economic rent. However, more studies have shifted to the resource-based view in recent years (e.g. Barney, 1991), arguing that SME performance is dependent on the advancement of unique resources and capabilities, often latent in nature, which are costly to copy in order to generate economic rent for competitive advantage. The owner-manager as an entrepreneur will therefore need to conduct a self audit to ascertain these intangible resources.

2.5.1 The micro-economic environment

Sarason et al. (2006) argue that the entrepreneurial owner-manager is a spontaneous person who spots, understand and acts on opportunities in an individual–opportunity continuum. An individual–opportunity continuum represents a duality in which owner-manager and opportunity combine, such that neither is mutually exclusive. Moreover, because of this composite relationship, the process is very distinctive enabling different perceptions of opportunities. In line with Chell (2008), they propose that the entrepreneurial discovery process concerns the cognitive convertibility of a substantial opportunity. Assessment is made of opportunities where reasonable frameworks are developed and convertibility occurs, based on entrepreneurial traits.

2.5.2 Capital convertibility

Firkin considers the dynamic nature of capital and the exercise of certain capital resources in different forms by placing them at multiple levels (micro through macro). In agreement with van der Linden (2009), he proposes an entrepreneurial capital that considers various components, suggesting that it relates to elements of economic, human, social and personal capital that have value. He describes capital as representing material wealth owned, that can be used to create additional wealth, but argues for the importance of non-financial resources to be used in the entrepreneurial process. Stringfellow and Shaw (2009) state that though these capital elements have been studied individually, they are interrelated in the practical sense. The dynamic nature of the environment with technological improvement desires a spirit of creativity and continuous convertibility to keep abreast with the emerging and changing needs of the customer base.

The pre-eminence of non financial capital (personal and social capital) or the intangible assets of owner-managers shaped by their environment in forms of expertise, knowledge and experience, is emphasised, encompassing human capital, intellectual capital, social capital, individual capital, structural, institutional capital, natural and spiritual capital, comprising the intangible assets (Davidsson and Honig, 2003; Lam et al., 2007). Firkin therefore emphasises the development and investment in creative elements in order to sustain the convertibility of capital, suggesting that entrepreneurship is the exercise of capital owned or that is embodied in an individual and can be used to continuously derive benefits through conversion to tangible forms for value and wealth creation.

Shaw et al. (2009) note that while entrepreneurship scholars have defined non-financial capital in various ways, common to most studies is the agreement that in addition to economic capital, entrepreneurs typically possess human, social and symbolic capital. Symbolic capital has, however, received less recognition and may be explained by the methodological difficulties involved in operationalising and

measuring it. Shaw et al. (2009) further argue that as the financial and non-financial capital necessary for business tenure is influenced by the wider environment and may present a lens through which the different forms of capital can be studied individually.

2.5.3 Differentiating forms of capital

Given the significance of the various forms of capital, it is essential to closely scrutinise each, as recommended by Bourdieu (1986) and Firkin (2001). Stringfellow and Shaw (2009) also suggest that it is necessary to isolate capital in its different natures due to the overlapping nature of the different types for value creation. In the entrepreneurial process, the ability to create value is an internal process of social actors through knowledge and resources, and devoting time and commitment to different forms of creative activities. Particularly identified is the psychological aspect and its interplay with internal and external factors (Shane, 2003). This interplay of various forms of capital will lead to a creative process for owner-managers and other stakeholders, with a multiplier effect on convertibility. Owner-managers could consider a retrospective view of events to generate prospective perceptions for capital convertibility. Common amongst these capital forms are social, cultural and human capital (called personal capital by Firkin), which form the basis for intangible assets. While the ability to convert is embedded in these forms of capital and entrepreneurial traits, their articulation would be influenced by institutional capital which affects owner-managers' behaviour. The interaction between these different forms of capital is the outcomes of creativity, leading to entrepreneurial capital convertibility which can be measured in terms of economic outputs. It is, however, imperative to consider the various forms of capital in isolation.

2.5.3.1 The concept of economic capital

Economic capital is defined by Bourdieu (1986) as financial resources of any form that are easily convertible into money. The day a company begins to generate cash will be a happy day in the life of a successful owner-manager. However, happiness is a subjective term and does not just depend on cash flow. Considering Firkin's work, financial capital equates to economic capital. Lam et al. (2007) suggest that amongst all the capital elements, economic capital has received more attention in financial and accounting terms because it is tangible and measurable. Given that it is defined as cash or new cash, it could act as a constraint on the activities of SMEs for potential growth in working capital terms. Financing can be regarded as vital to meet liabilities and thus uncertainty. Investors will want to see tangible evidence of the future viability of an opportunity and are likely to evaluate owner-managers' capabilities in terms of the potential for resource smooth exploitation. However, the owner-manager is able to retain a greater share of the business if successful and to attract the necessary funds, as some parts of ownership may cost more in future with signs of sustained competitive advantage (Bygrave, 1999). Owner-managers can, however, receive cash from various sources, which include venture capitalists.

To cover this gap, venture capital has been shown to be an important component of the entrepreneurship environment. Venture capital investments in SMEs improve a country's innovative capacity (Wonglimpiyarat, 2007) mainly from government venture capital funds that work in partnership with private ones. The growth of private equity institutions has enhanced the access to venture capital for SMEs. Venture capitalists, however, are also involved in risk taking and their perception of an owner-manager is necessary for the dispensing of funds in the cognitive supply chain in terms of risk/rewards, thereby requiring former explications in the form of business plans.

Economic capital is therefore the most straightforward form of capital, as it enables businesses to employ and motivate staff, purchase equipment, train staff, defend

intellectual property and meet short term obligations. When an individual has evaluated his capital with a combination of other forms of capital and can motivate others using these forms, businesses can function better and activate necessary personality traits for capital convertibility. While other capital can aid in achieving economic capital, Firkin (2001) argues that money alone cannot lay claim to personal capital. The possession of economic resources could easily lead to convertibility of cultural and social capital, but it is also arguable whether this is sustainable.

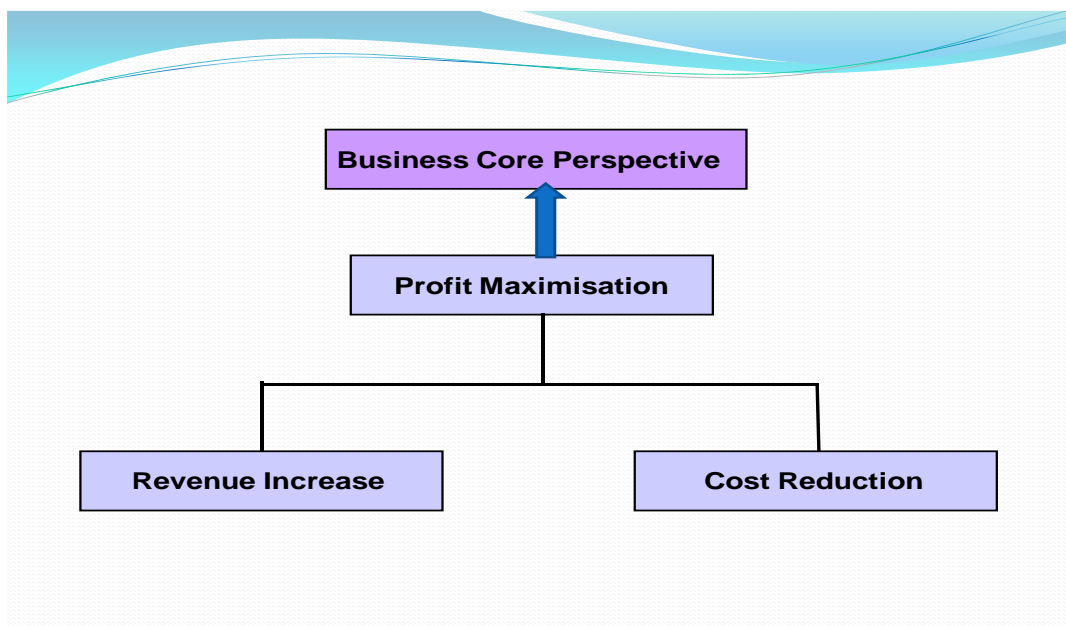


Figure 2.6: Business Perspective

If we consider performance as tangible and economic, then the focus is mainly on profit maximisation through increased revenue and reduced cost. As shown in Figure 2.6, this acts as the main objective of a business, with the interplay of other forms of capital, especially that of social capital.

2.5.3.2 The concept of social capital

(Bourdieu, 1986, p51) defines social capital as

“...the aggregate of the actual or potential resources which are linked to the possession of a durable network of more or less institutionalised relationships of mutual acquaintance.”

Following Bourdieu, Lin (2001) posits that it is resources situated in social networks accessed and used by those in the network.

From this, however, it can be argued that institutions can develop with control structures, and impede the convertibility of capital. The preferred position is a good customer base, social and sustainable networking with use of technology and knowledge transfer partnerships (Shelton, 2002) in a knowledge economy. Goodwin (2003, p1) states that this social capital

“...consists of a stock of trust, mutual understanding, shared values and socially held knowledge.”

Bourdieu (1986) also indicates that the social world is accumulated history, with values, beliefs and perceptions which have undergone changes over time, forming part of an evolutionary process. For economic reasons, society can therefore be divided into different lifestyles to provide an insight into various groups, with the perception of opportunities to influence and convert relationships to future benefits. Bourdieu's (1986) definition of social capital is seen as relationships between and within institutions, which exist in a spirit of shared norms and customs mainly from the ideologies and economic and social policies of a state at a point in time. Institutions have a great influence on behaviour and can be divided into primary ones (family, friends, work colleagues and neighbours) and secondary ones (professional associations, religious affiliations and trade unions). This is also in line with Firkin's network and family oriented social capital, which considers the family as an institutionalised relationship. These are considered as the main networks for any

individual and will determine the level of future benefits through frequency and dense traffic. A feature of social capital is that, unlike physical capital, its value tends to increase the more it is used.

Researchers in social capital (Stringfellow and Shaw, 2009; Shaw et al., 2007) have considered social capital as the focus of entrepreneurial capital convertibility. In considering its convertibility to economic benefits, arms' length dealing in network oriented capital is suggested, leading to a reduction in transaction costs. As network relationships become embedded, costs tend to decrease in terms of cost of capital due to the building of confidence and trust, especially with a free flow of information. Lam et al. (2007) suggest that research has recognised a positive association between reputation and trust. They acknowledged reliability as core to the process of reputation formation.

2.5.3.2.1 Quality and quantity

Neira et al. (2008) contend that the quantity and quality of social capital need to be balanced against each other. Such networks for value creation are highly workable when aspects such as language converge and trust and goodwill (Adler and Kwon, 2002) are upheld. Others have noted that an owner-manager's access to social capital is based on the size and contents of their personal contact networks (Davidsson and Honig, 2003; Lam et al., 2007). An owner-manager's personal contact network (PCN) is the five primary business contacts (Cromie and Birley, 1992). As Nahapiet and Ghoshal (1998, p107) explain, social capital amounts to

“...the actual and potential resources an individual obtains from knowing others, being part of a network with them, or merely being known to them and having a good reputation.”

Burt (2004) suggests that social capital is maintained and drawn upon by individuals and Lam et al. (2007) report that many researchers have argued that an owner-manager is more entrepreneurial when centrally located within a network of weak

contacts. Social relationships are clearly an important channel for discovering an innovation's potential and to actually commercialise it. Dalziel and Saunders (2009) note that networks come in three types (bonding, bridging and linking) and they can be seen to function both horizontally and vertically.

2.5.3.2.2 Application of social capital to business

The social resource has been linked to improved managerial performance (internal), added value from strategic alliances (supply chain) and marketing skills (Carter et al., 2003). This link is however only possible through long term investment to generate value in the future. Fried et al. (2006) assert that businesses must find the correct equilibrium between strong and weak ties to protect them from inactivity and risk. They therefore call for the management of social capital over its life cycle, taking note of any impairments and its continuous revaluation for business growth. Stringfellow and Shaw (2009, p142) state that debates on the importance of social capital centre on three key issues:

- “whether an internal or external perspective is adopted;
- the nature of the outcomes of social capital;
- the focus of analysis in social capital research.”

In other areas, closure of social networks influenced by strong social norms and beliefs may lead to solidarity (Adler and Kwon, 2002). Solidarity may reduce transaction costs, enhance commitment, and permit more perceptive information to be shared. However, innovation and pro-activeness can be hampered by tight knit ties (Portes, 1998). In SMEs, it has been found that opportunities are sometimes missed because owner-managers interact only with those with like characteristics (Maurer and Ebers, 2006)

In discussing the relationship between trust and reciprocity and their connection to the entrepreneurial spirit, Chen et al. (1998) suggest that cooperative goals facilitate

trust development between entrepreneurial SMEs and others in their network, while competitive and independent goals undermine it. In situations where social capital is perceived as positive, therefore, it may result in a good customer base, and social and sustainable networking with the use of technology and knowledge transfer partnerships on a customer lifetime value basis. This will be possible if those in the paradigm share similar values, such as religious ones, for the better understanding of needs, perceptions and attitudes and therefore added value. However, this is subject to changing circumstances, because truth is seen as emergent. The mixture of cultures and human capital provides new information which can be processed by the human mind and transmitted from one network to another based on trust and power through resources and their convertibility, creating a never ending circle of creativity and innovation for a dynamic customer base (Sapleton, 2009). Experience and contacts gained formally as well as informally can be a vital resource, providing insights into the familiar industry, as well as the staff and client base. Sapleton, in trying to measure networks, used the dependent variable of social capital and conceptualised it into aspects of trust, social networks, social participation and social activity.

When an inner viewpoint is adopted, studies emphasise the organisation of associations between owner-managers within a collective. An external viewpoint looks at the associations an owner-manager keeps with others. Studies have suggested that social capital is a public good (Putnam, 1993). However, social capital provides both risk and opportunities in the process of influence (Adler and Kwon, 2002). Some social associations, due to their strategic settings, carry more valued capital and afford greater influence. Using symbolic capital, social capital may confer social credentials to an individual (Shaw et al., 2008). These ties can also lead to missed opportunities and therefore entrepreneurial motives are warranted. However, once groups or networks develop, there is a source of power, as shown in the accumulation of capital which lies in its subjectivity, values and assumptions.

2.5.3.2.3 Power

In a quest to always be ahead of the competitors, owner-managers will need valued networks. According to Hitt et al. (2009) power is the skill to influence in a social setting, mainly from the means of production, of which labour is a key constituent and intrinsically related to the values espoused by a leader. Market leadership needs some aspect of this process to be exercised.

In current business literature, however, the emphasis is more on collaborative and strategic partnerships. However, the market economy will have to be considered in aspects of information flow. This will also conform to House et al. (2004) value dimensions, which will further depend on the political philosophy and idealism of a social structure and reflected in formal policies. An owner-manager is considered in most circumstances as a role model because of his position and the resources he commands when wielding power. Adopting a psychological view, Rimmer and Smith (2006) notes that culture is a facet of the influence process relationships by the use of language, meanings, symbols (Garvey and Williamson, 2002) which may command power in social associations. Johnson and Scholes (2002) portray this in the cultural web suggesting convertibility at levels following the psychological and sociological viewpoints. The main aspect however is meeting objectives through converting such social capital into value partners to attain an objective, mainly financial.

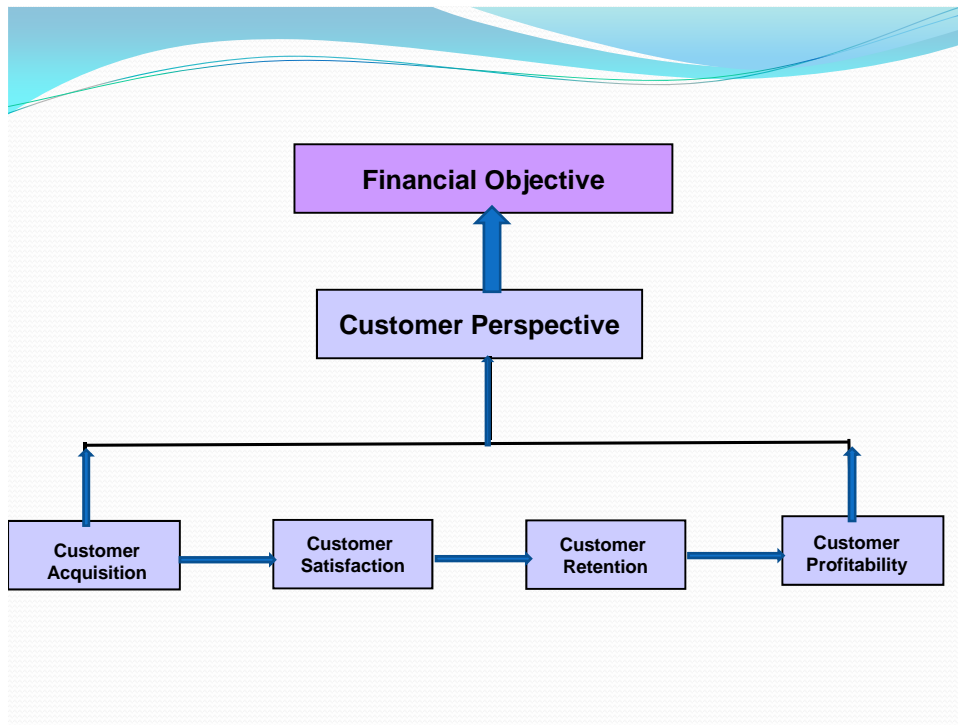


Figure 2.7: Financial objective

Therefore, in striving to gain economic benefits, the main network for SMEs is the customer, measured by the customer perspective and tied to customer management processes, as shown in Figure 2.7. These processes are a result of entrepreneurial thinking based on unique traits.

2.5.3.3 The concept of human capital

Human capital is referred to as the combination of personality and abilities that makes one productive in society (Shanahan and Tuma, 1994), from intrinsic traits and acquired characteristics converted from culture, passed down through education and experience. According to Bourdieu (1986), we are a product of what we are taught or conditioned to be, through the selling of a culture, highlighting convertibility between social, human and cultural capital. Lam et al. (2007) suggest that studies have recognised that age and experience of an owner-manager are facets of human capital which have implications on the institution of an SME, while van der Linden (2009) divides experience into industry specific and entrepreneurship specific.

Notwithstanding these influences, it is imperative for an owner-manager to add value through aspects of continuous learning and development, adaptability and flexibility, a sense of empathy and accountability (Heinke and Louis, 2009). With these attributes, a way of doing things becomes embedded in people. Much research has therefore been carried out on entrepreneurial education in the supply of relevant skills for SME survival (Matlay, 2009).

In this regard, human capital is related to mind processes. Bourdieu argues that this form of capital involves educational achievement and experience, with the addition of skills, distinct from knowledge, for the successful creation and sustaining of businesses. It is seen as one of the core competences necessary for success in a dynamic world and will need constant upgrading through continuous learning and development (Matlay, 2009). Although this internally generated asset is not allowed to be recorded by accounting standards, its intrinsic substance (symbolic capital) is of value in making rational decisions (Lam et al., 2007). Based on studies carried out by Lan and Wu (2009), educational level is positively correlated with entrepreneurial orientation through understanding of markets, seeking new opportunities, and promptly responding to changes. This also has a positive relationship with entrepreneurial education (Matlay, 2009). Brooking (1996) expands on the human capital element and includes aspects of intellectual capital which can be protected in the social system, such as intellectual property assets (copyrights, patents, designs, trade marks), market assets (brands, contracts, distribution channels) and infrastructural capital in the form of methodologies, technologies, hedging and communication systems.

2.5.3.3.1 Value of human capital

The wealth of experience an owner-manager possesses is only reflected in the level of return and other benefits but his reputation or image is intrinsically reflected in the motivation of staff, efficiency levels and therefore the expansion of the customer base through valued marketing techniques. Is it therefore possible to capitalise the

reputations of an owner-manager or management team through their cost to the company? Considering the expertise and knowledge possessed by an owner-manager, the tacit element, which is a pre-requisite for advantage, can only be known when it is expressed in the trust or in writing. This will come about when creative energy is motivated through a shared purpose, values and need for achievement. Total engagement and synergy along the value chain will make room for better value propositions embedded in products and services for the ultimate satisfaction of both internal and external customer bases in using social competence. Value, however, will not be recognised as another intangible unless it has been protected by designated laws and statutes, as once tacit knowledge is made explicit, it loses its advantage.

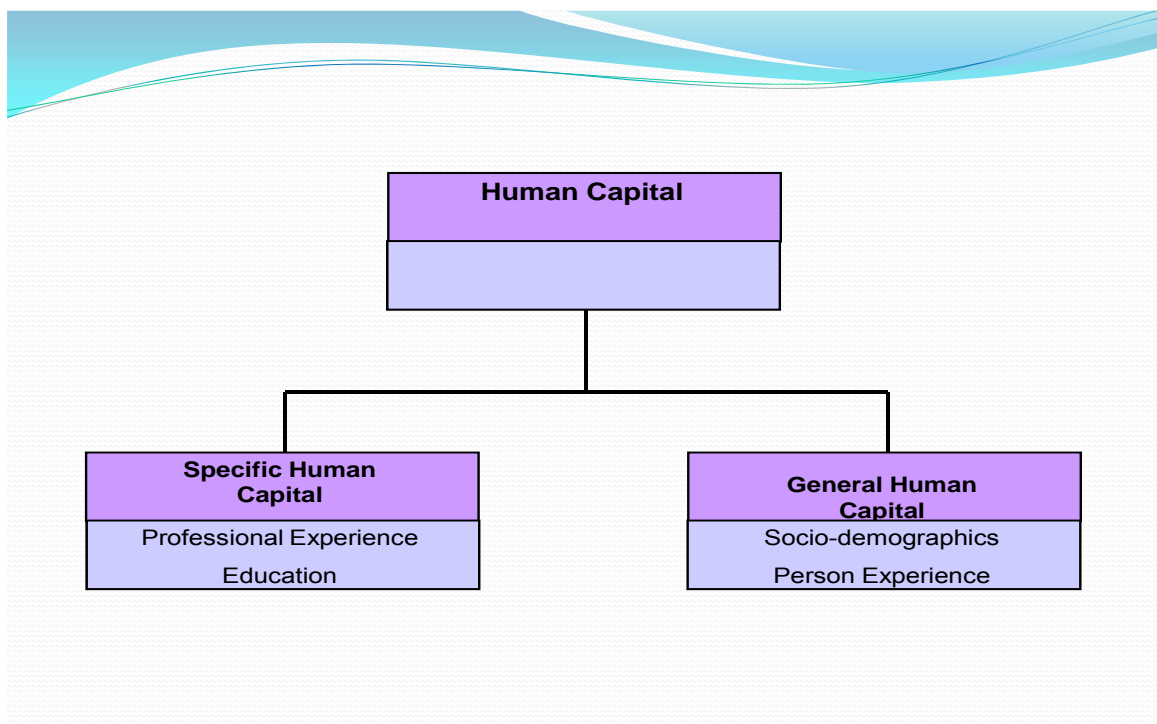


Figure 2.8: Forms of human capital

Continuous unlearning will therefore reduce amortisation/impairment. According to Banfield and Kay (2008), learning as a compulsory human development procedure. Human capital alone will not create value as it needs motivation and management by

good practice for productivity. As in figure 2.8, human capital is divided into specific and general levels influenced by learnt experiences from institutions and the wider environment. If the knowledge they are creating cannot be embedded in goods and services that are in demand, then it will have no value to the business.

2.5.3.3.2 Investing in learning

Knowledge, skills and competencies have become more and more important for successful SMEs. Given that human resource is precious to every organisation, owner-managers must be proactive in acquiring and developing this capital to provide value added. In these circumstances, valuing capabilities will lead to convertibility and an increase in value. Lumpkin and Dess (1996) link human resource development to internal innovativeness in products and processes, leading to flexibility, adaptability, efficiency, effectiveness, new products and satisfied customers, as well as good bottom lines for competitive advantage.

Arguing for sustainability, it is ideal for a spin off effect to be created in small and medium sized businesses, where the discretionary cost of investment in human capital (Becker, 1964; Hitt et al., 2009) through training, coaching and encouragement is seen as important. However, it is argued that all owner-managers are entrepreneurs in their own right and motivated to behave in different ways by their needs at a particular time and context.

2.5.3.3.3 Unlearning styles

Kolb (1984) indicates that people learn from actions relating to a cause-effect relationship. However, different owner-managers have different ways of coming to this judgment, based on the learning styles proposed by Kolb. It is observed that most people have an overlapping effect, signifying many styles at different times affected by personality traits, especially added traits such as introversion and extraversion.

Human capital also involves labour costs, which are liable to continuous bargaining power as a subset of leadership (culture) and collective bargaining by management teams (social capital), here mainly the act of politics and power. People or teams with knowledge are considered entrepreneurial if they dedicate themselves to market innovation, take risk, and are proactive, beating competitors to the punch, and highlighting these traits through the power of social awareness. These individuals are therefore a minority among businesses in terms of their continuous rethinking, creation of new cultures, processes, products and services, and distinctiveness from others in satisfying customers.

2.5.3.3.4 Bargaining power

von Mangoldt (1907) developed the idea that entrepreneurial profit is the rent of the mind dividing entrepreneurial income into: a premium on uninsured risks; entrepreneurs' wages, and entrepreneurial rents - as returns for outstanding capabilities, enabling the owner-manager to obtain abnormal income in a market.

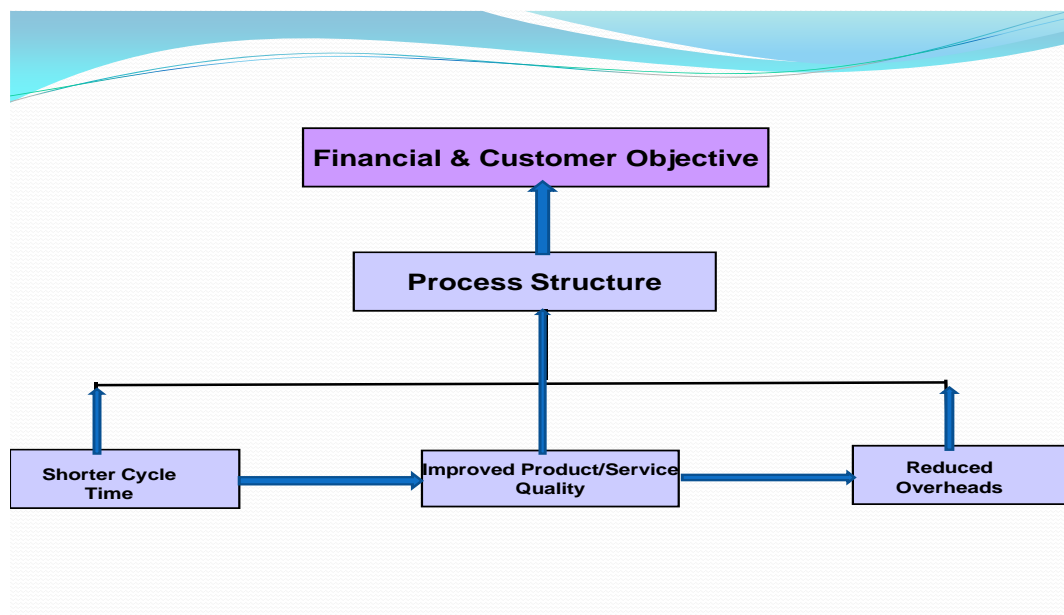


Figure 2.9: Financial and customer perspectives

With high human capital, owner-managers can activate entrepreneurial traits, creating a process that helps in providing the right goods and services to customers and earning economic capital, as shown in Figure 2.9. This culture of improvement will lead to reduced costs in such processes, increased customer satisfaction and financial capital.

2.5.3.4 The concept of cultural capital

Cultural capital according to Bourdieu (1986, p47) is

“...long lasting dispositions of the mind and body’ influenced by a perception of the environment which aids creativity.”

The concept of cultural capital originates in Bourdieu’s cultural reproduction theory, in which he argues that an individuals’ cultural resources comprise a separate type of capital which should be seen on equal terms with economic resources, social networks and connections. Cultural capital is mainly encoded meanings and their varied interpretation for advantage or generalised currency, which can be converted to other forms.

It is therefore a stock of cultural values embodied in an asset, including tangible and intangible items such as a set of ideas, practices and beliefs, which identify and bind together a group. Following from this discussion, Bourdieu distinguishes between three types of cultural capital: objectified cultural capital, which comprises material objects such as historical sites, heritage buildings, artefacts, writing and paintings in symbolic forms; institutional cultural capital, which refers to acquired skills that are recognised in the country’s system of academic qualifications; and embodied capital, in an individual as a result of ongoing socialisation through language, shared values, knowledge and understanding. Firkin (2001) expands this notion in the culture of communities of interest, which is mainly based on a way of thinking. Basu (2004) suggests that all family businesses share a similar business culture based on class

background and strategies, suggesting a psychological connection, as in the success factors for entrepreneurs. Research into this psychological aspect has been undertaken by many researchers, who discuss various traits and their application to SMEs (e.g. Sparrow, 2001). The starting point for culture therefore is convertibility of intangibles for value creation, from the unconscious to the conscious, as discussed by Ardichvili et al. (2003) and illustrated in the opportunity matrix in Figure 2.10.

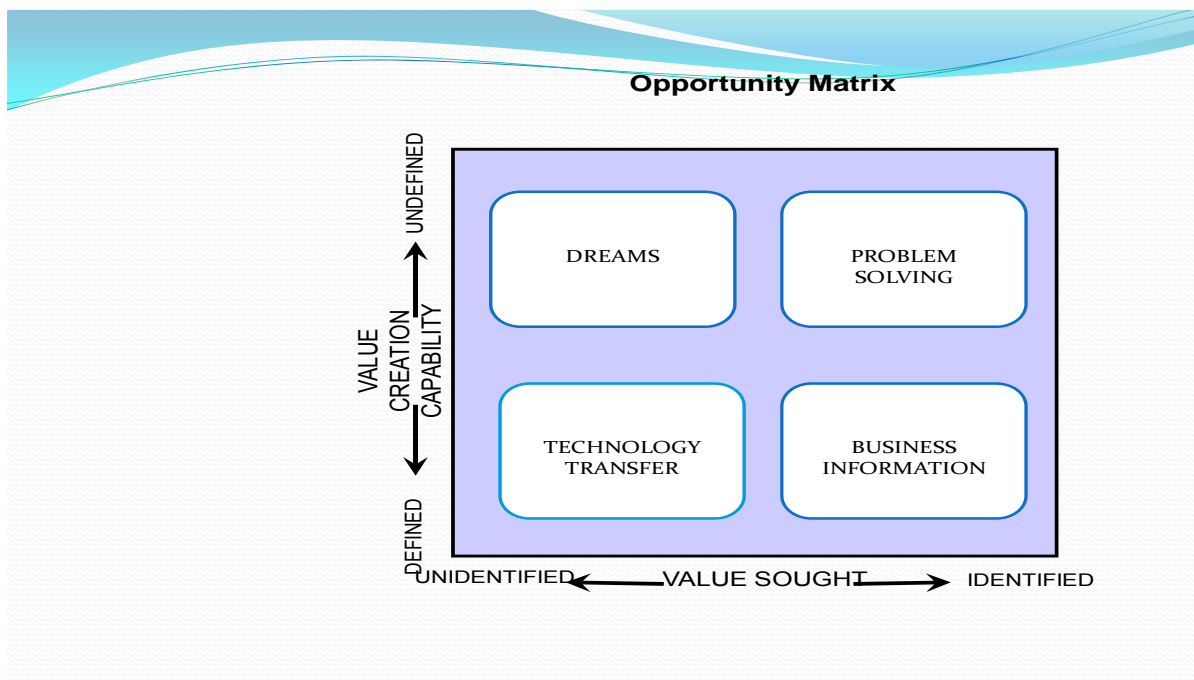


Figure 2.10: Opportunity Matrix Source Ardichvili et al. (2003, p117)

This shows differentials between opportunities based on the level of trait development where value sought may be known or unknown. The value creation potential, which includes wide-ranging specifications of intellectual and other resources, may also be defined or undefined. The value sought may be related to problems and the value creation capability to solutions based on an awareness of the market, interpretation of information and being pro-active. Additionally,

“...where the value sought is unidentified and the value creation capability undefined (problems and solutions both unknown), it may represent creativity

linked with artists, some designers, and inventors interested in moving proprietary knowledge in a new direction.” (p117)

Identified value sought but undefined capability as shown in the matrix (problems are known but solutions are not) suggests a situation in which ordered problem solving, including information search, may take place (Ardichvili et al., 2003) for market development. If on the other hand problems are not known but options are available, there is a need for constant alertness and a desire to be flexible. Opportunity development here suggests an entrepreneurial mindset. Where both problems and solutions are known, opportunity improvement involves synthesising problems with solutions through thorough analyses that will add value.

These all have influences on individuals' intentions and outcomes as in the owner-manager-entrepreneur continuum and will influence interpretations through different meanings, leading to differing visions and interpretations of meanings of major events from the common experiences of individuals of a collective and transmitted through generations. More specifically, when considering entrepreneurial owner-managers, personal values are seen as influencing the collective value system, attitudes and behaviours of a team and SMEs (Levie and Hart, 2011). In a business sense, the main terms include strategic purpose, vision, objective, mission and goals influenced by values, behaviours and attitudes. House et al. (2004) used aspects of value synonymous to entrepreneurial traits, which affect leadership styles and vision, as well as personal traits. This therefore relates more to personality that makes a person unique.

Bourdieu (1986, pp 243-244) states that

“...it is shared knowledge and values, tacit understandings, common language usage and collective styles that contribute to the presentation of the self in particular ways.”

This ties cultural capital to social capital and past experience. Such personification evolves and forms part of a continuing social process (Nonaka and Takeuchi, 1995). Although human and cultural capitals have similarities, Firkin (2001) differentiates them by considering their embodied and material states. Cultural capital can therefore be seen as mirroring the processes of entrepreneurship and creativity to innovation in a mind to body continuum through owner-managers' knowledge and past experience. The non-financial is mainly from the mind or the intellect, influencing processes for SME knowledge networks, as shown Figure 2.11.

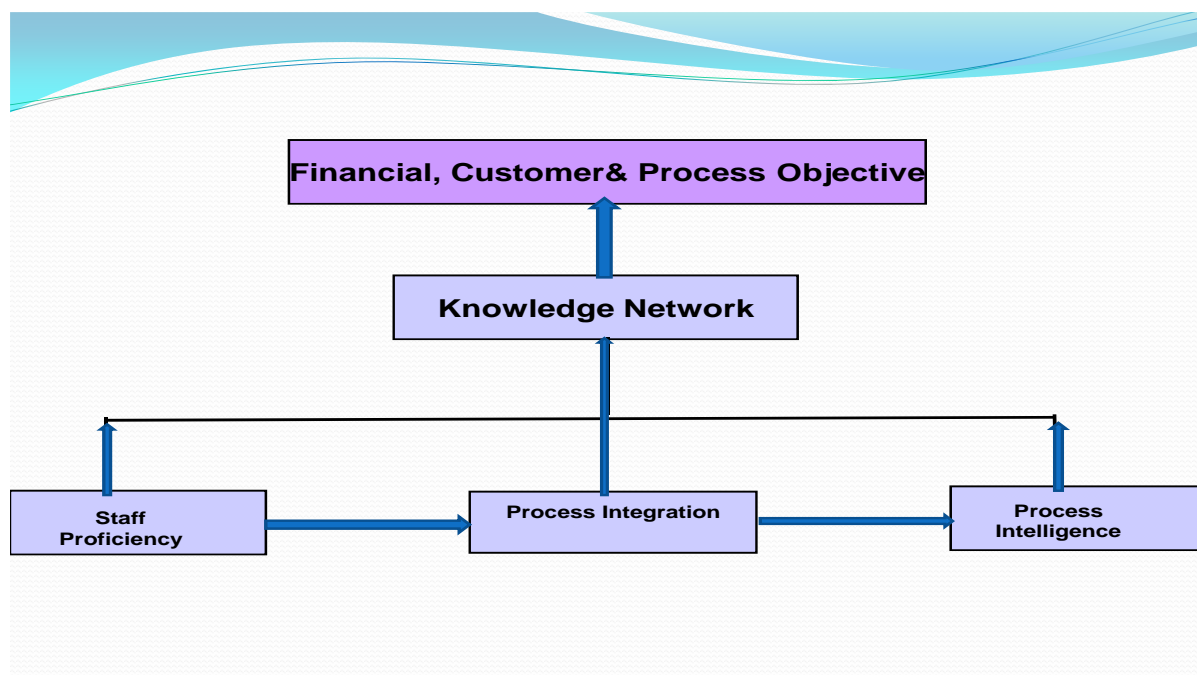


Figure 2.11: Financial, customer and process perspectives

2.5.3.5 The concept of intellectual capital

Using an integral framework for intangible assets, Montequin et al (2006) consider the human brain as the intellect and therefore a resource as in knowledge, experience, technology, customer relationships and professional skills, leading to competitive advantage and growth. According to them, this intellectual capital comprises human capital (values and attitudes, skills, experience and know-how),

structural capital (information systems, knowledge applications, databases, processes and other infrastructure to support business strategy) and relational capital (external suppliers, customers and other valued stakeholders). Guthrie et al. (2001) suggests that intellectual capital adds significantly to the creation of value in entrepreneurial businesses. Nazari and Herremans (2007) on their part state that intellectual capital is knowledge which can easily be converted into value based on the non-financial capital of owner-managers. Intellectual capital encompasses much more than patents, copyrights and other forms of intellectual property. It is the sum and synergy of a company's knowledge, experience, relationships, processes, discoveries, innovations, market presence and community influence.

Intellectual capital could then include the non-financial aspects of an owner-manager's entrepreneurial capital including their knowledge and past experiences. This is only valuable when it is rightly perceived by external stakeholders in its symbolic or reputational nature before it can be used in convertibility. Lam et al (2007) relate that reputation is largely predicated on the ability of organisations to develop and build positive relationships with key stakeholders and studies have explore reputation by examining stakeholder perceptions. Stakeholder may develop perceptions of organisations in order to develop an understanding of their corporate reputation Brown (2000). With the centrality of owner-managers in SMEs, reputation is largely dictated by the reputation of the owner-manager (Shaw, 2006).

As social capital is determined both by the amounts and forms of capital possessed by an owner-manager and his reputation, certain types of capital may be more valued than others. Ultimately these different values will affect their experiences creating better perception of entrepreneurial opportunities through use of their intellectual capital. This is better explained by Bourdieu's (1986) notion of symbolic capital where symbolic capital is the form which different types of capital take once they are perceived and recognized by others to be legitimate. Extending this perspective, Firkin (2003: 65) agrees that the 'concept of entrepreneurial capital is

based on the total capital that an individual possesses' and the value placed on this composite form of capital.

The convertibility process is one of using the intellect to solve a problem, and doing so profitably. The process for convertibility of intellectual capital to other forms involves such steps as initiating novel marketing techniques, mitigating risks and managing cash flow. The Skandia value scheme (Montequin et al., 2006) portrays intellectual capital as comprising non-financial capital, which together with financial capital will provide market value for an SME.

2.6 Conclusion

This intellectual capital model therefore encompasses the non-financial elements of entrepreneurial capital and provides a foundation for entrepreneurial capital convertibility based on an owner-manager's entrepreneurial mindset. Bakhru (2008) indicates that intellectual capital is often used interchangeably with organisational capital. He further suggests that while there is a value to SMEs of owner-managers' intellectual capital, the terms are different. Organisational capital is also used as a specific knowledge. Subramaniam and Youndt (2005, p451) refer to it as

“...the institutionalised knowledge and codified experience residing within and utilized through databases, patents, manuals, structures, systems and processes.”

Martin-de-Castro et al. (2006) suggest that it comprises the culture, structure, and learning of an SME. Based on the psychological, sociological, economic and resource based views discussed, definitions of intellectual capital seem to integrate the non financial capital concepts (cultural, human and social) and highlight the value of a number of knowledge-based assets to merge into the owner-manager's knowledge.

The following chapter examines the owner-manager's intellect from the knowledge based perspective and considers how this could affect SME entrepreneurial capital convertibility by discussing knowledge management in SMEs and managerial implications for both internal and external stakeholders.

CHAPTER 3: THE KNOWLEDGE BASED VIEW

3.0 Introduction

The concept of intellectual capital therefore acts as an intermediary between the resource and knowledge based views, as the intellect resides in the human resource of owner-managers. It considers SMEs as entities that create, incorporate and dispense knowledge. According to this view, competitive advantage is administered by the means of SMEs to create novel knowledge assets that produce core competencies and assumes that the main contribution in creation and the prime basis of value is knowledge (Grant, 1996). According to Theriou et al. (2009), two groups of these views operate; one asserts that knowledge is the most significant resource for SMEs and does not differentiate between diverse types of knowledge-based potentials, and the other suggests the importance of collective knowledge, tacit and social, offering insight into behaviour. Grant (1996), however, suggests that knowledge is personal, thereby making owner-managers' knowledge a critical resource for an SME. Research such as that by Nonaka (1994) focuses on the acquisition and formation of organisational knowledge. Whatever the case, it should follow the processes of knowledge convertibility to the production of goods and services, lending credence to the creativity-innovation process and entrepreneurial capital convertibility, with the prominence of owner-manager's absorptive capacity.

3.1 Entrepreneurial capital as knowledge and change

Competition is shifting from tangible elements to the more intangible ones of quality, reliability, reputation, image, expertise and goodwill. Owner-managers are increasingly asked to be more entrepreneurial; entrepreneurs are required to do managerial tasks (Chandrakumara et al., 2011). In addition, the lifecycle theory of business leadership points to the fact that SMEs need owner-managers with managerial and entrepreneurial aptitude (Davidson and Griffin, 2000). Gupta et al.

(2004) emphasise the need for a fair approach through effective leadership for good performance of SMEs.

There is also a need to establish the difference between entrepreneurship and entrepreneurial orientation with regard to the dynamic environment in the processes, practices and decision making activities of SMEs and their continuous survival. Martin et al. (2002) consider succession in businesses and suggest that much will be based on the phase of the SME and the options available to owner-managers. The internal factors crucial for them include the ability to act autonomously, the capacity to absorb knowledge, innovate, take risks and be proactive, and competitive aggressiveness, as well as being flexible enough in adapting to the environment. It must be noted that these factors are context-specific and can also vary at the firm level, covering managerial tasks, with enabling factors playing a major role. Fredrickson (1986) proposes rationality, comprehensiveness and assertiveness and integrated into a framework of strategic management processes of command, symbolic, rational and generative measures. These are all in line with Schumpeter's and Kirzner's schools of thought. Entrepreneurial activity is often associated with change in the market.

Change will depend on the vision of an owner-manager, based on various cognitive, conscious and unconscious insights, mental models and how this vision is sold to others through constant reflection. In other words, convertibility of capital is a change in knowledge in a dynamic environment and requires clear processes of knowledge management and adaptation in SMEs to survive in various contexts and times. Firkin (2001, p11) states that

“...the particular mix of capital can be different depending on the nature of an SME and the owner-manager.”

Rapid changes in the business environment warrant SMEs to be entrepreneurial and compete effectively. According to Valkokari and Helander (2007), knowledge-based

assets are crucial to sustainable competitive advantage. As knowledge is crucial in this respect, the owner-manager's capital is seen to be his knowledge and the core resource for survival. This knowledge possessed by him/her is a mixture of social, cultural and human capital, the composition and convertibility of which produces experiences and a view of the world (Mintchik and Farmer, 2008). Davenport and Prusak (1998) compare it to the flow of knowledge for the creation of new ideas while Mizumoto and Saes (2009) attest that entrepreneurship is about new economic knowledge and change. Accumulated knowledge through experience is therefore a key ingredient in the convertibility process

3.2 Knowledge

According to Bouthillier and Shearer (2002), there is a difference between data, information and knowledge. Data is seen as unprocessed details; information as a collection of these details ordered in a way to produce added value; and knowledge is the body of rules, guidelines, and procedures used to select, organise and manoeuvre data to make it suitable for use. Furthermore, Sveiby (1997) reasons that knowledge cannot be described in words because it is mainly un-coded, dynamic and therefore information and knowledge should be seen as manifestly different. Information is chaotic; knowledge is not, he suggests. The receiver of the information, not the sender, gives it meaning and as such information is meaningless. Nonaka and Takeuchi (1995, p58) claim that knowledge is "justified true belief", although seen as a vague concept which needs refining. An adjustment to this, according to Nonaka, is to consider knowledge as a personal 'belief,' from experience or learning, and to emphasise the importance of the "justification of knowledge" (Nonaka, 1994, p15) as an essential difference because

"...conventional epistemology highlights the absolute, static, and nonhuman nature of knowledge."

Gourlay (2006) argues that regardless of the qualities of this view it is not clear why it should be an issue in theory. Nonaka's ignoring of conventional epistemology is adversely apparent in light of discussing justification, the process of establishing whether the newly created concepts are absolutely of value to an organisation (Nonaka and Takeuchi, 1995). This involves the appraisal by owner-managers of new ideas against pre-defined benchmarks (Nonaka, 1994). Nonaka argues that if beliefs are justified, then they are seen as the truth. However, in context of information asymmetry and management tools, a 'justified belief' is not necessarily truth. The implications of this are clear: knowledge as 'justified belief' in Nonaka's argument means plans sanctioned by owner-managers based on accumulated experience. In the data-knowledge continuum, data and information are normally seen as chaotic in nature and therefore need the application of intellectual capital to convert them into knowledge. Nonaka points out that knowledge fundamental to innovation need not be novel, as in Schumpeterian style, but may be knowledge already in existence that has never been utilised and needs an entrepreneurial mind to convert into value added options for SMEs.

3.2.1 Tacit and Explicit

Knowledge therefore is beliefs about information and processes which go through the lens of managerial appraisal for option generation. This will therefore suggest a skew towards owner-managers' decision making processes. On the other hand, owner-managers' commitment to a belief that they can achieve goals is vital to success in a changing environment. Beliefs are tacit, and a knowledge project might help elaborate such inert resources. A pragmatic model of entrepreneurial capital convertibility could explain the production of a measurable knowledge (Brinklow, 2004).

3.3 Knowledge convertibility

According to Nonaka et al. (2000), knowledge creation is a continuous process through which one breaks barriers to attain a new understanding, a new worldview, and knowledge. In knowledge creation, therefore, 'fields' at the micro, meso and macro levels interact with each other, creating a new context and aiding in owner-managers' decision making. This is the actual process of convertibility based on what an owner-manager knows, derived from the various forms of capital and calculated risk. Considering the dynamic environment, Nonaka et al. (2000) suggest a model of knowledge creation consisting of:

- "...the SECI process, the process of knowledge creation through conversion between tacit and explicit knowledge;
- ba, the shared context for knowledge creation; and
- knowledge assets - the inputs, outputs, and mediator of the knowledge-creating process."

(pp 8-9)

These three combine to form the spiral that produces and converts knowledge.

3.3.1 The SECI Process

The SECI process consists of four areas of knowledge change as an SME produces new ideas from explicit to tacit forms and vice versa. Through this process, both tacit and explicit knowledge develop in

"...socialisation, externalisation, combination, and internalisation." (p9)

Internalisation and externalisation have been grouped as knowledge sharing, while socialisation and combination are more akin to knowledge transfer.

3.3.1.1 Socialisation

According to Nonaka et al. (2000), socialisation is the process of converting novel latent knowledge through shared experiences. Tacit knowledge is acquired mainly through shared experience. This mainly occurs in informal social meetings, where mental frames are produced and shared. The risk here is the loss of context or knowledge with time as it is not explicit. SMEs may obtain benefit from the tacit knowledge embedded in social capital, such as by interacting with customers or suppliers.

3.3.1.2 Externalisation

For them, externalisation is the process of expressing “tacit knowledge into explicit knowledge” (p9). When this happens, knowledge is made clear, and shared by others becoming the foundation of novel knowledge. Concept articulation in new product improvement is an example of this convertibility process, representing human, social and economic capital based on entrepreneurial factors allowing improvements to be made on manufacturing processes by expressing the tacit knowledge accumulated over years on an opportunity. This process depends on chronological use of metaphor, analogy and modelling.

3.3.1.3 Combination

This involves the

“...process of converting explicit knowledge into complex and systematic sets of knowledge collected and combined, edited or processed to generate novel knowledge” (p9).

This is then distributed among the participants of a business with use of information and communication technologies (ICT). If an analyst combines information from different sources to create a report, it becomes a novel idea to produce business

solutions. Combination can also include differentiating concepts to form new theories and concepts; for example, strategies are broken down into operational concepts to create systemic, explicit knowledge.

3.3.1.4 Internalisation

Internalisation involves the

“...process of embodying explicit knowledge” (p9)

Through this, ideas are verbally spoken, shared and converted into more latent forms. Explicit information or ideas, like novel theories on production, has to be realised through implementation in practice. For example, managerial courses could help owner-managers understand an organisation and their own knowledge. By reading books and reflecting upon them, explicit knowledge can be internalise, thereby improving tacit knowledge. Explicit knowledge can also be converted to tacit knowledge through replication or experimentation, which leads to learning by doing.

Where knowledge is held tacitly in the skilled repertoires, owner-managers could make it explicit organisational knowledge and intellectual capital (Nonaka and Takeuchi, 1995) by understanding and energising motives.

Figure 3.1, adapted from Nonaka et al. (2000), illustrates the processes of SECI discussed above.

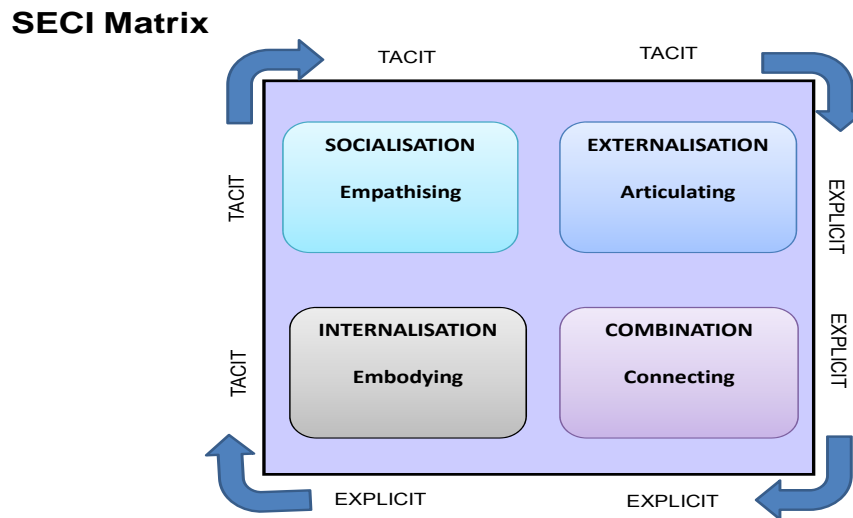


Figure 3.1: The SECI process

As a self-transcending process, owner-managers can break boundaries in socialisation through direct experiences. In socialisation people empathise with others both internally and externally, producing trust and reducing transaction costs. In externalisation, one surpasses boundaries and buys into new ideas with like minded individuals. In combination, novel information generated is internalised; and individuals gain access to the knowledge of others.

Knowledge convertibility is therefore a dynamic process, starting at the owner-manager level and expanding multi-dimensionally through interaction within and beyond organisational boundaries through the application of entrepreneurial traits. Through contacts, knowledge created by a business can activate and integrate the information from other stakeholder, such as customers and other partners as illustrated in Figure 3.2.

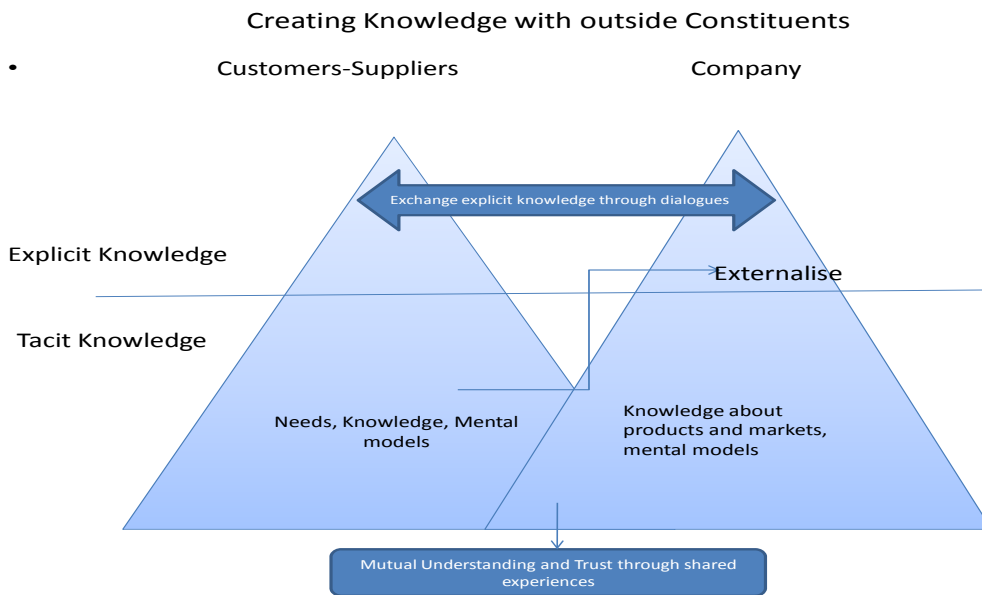


Figure 3.2: Creating knowledge with outside constituents Source: Nonaka et al (2000, p13)

With reference to Figure 3.2, knowledge is created from owner-manager, shared and used in business activity, forming a time and context specific justified belief. Embedded knowledge in the form of knowledge in processes, products, culture, routines, artifacts or structures aids in meeting objectives.

Fundamental to these are mutual understanding and trust through shared experiences or embodied knowledge which is more tacit and intuitive. This has the prospect of maximum interaction, leading to novel thoughts, innovations and competitive collaboration. Keeping ahead of competitors will require owner-managers to constantly revise and communicate novel ideas for action. These forms of communication, verbal or written, are seen as the outward representation of the mind and therefore, in accordance with the social world, act as input into another process. However, it also depends on the recipient of such knowledge to make sense of it through interpretation and understanding and will depend on the mental and emotional state (entrepreneurial ability) of the recipient in breaking down new concepts into information and digesting them subconsciously for further perception

and concept formation. This therefore may lead to divergence in understanding and a source of conflict and novel idea formation. Absorptive capacity then becomes necessary in internal processes, which can then be extrapolated to external constituents in the selling of ideas or innovation. This shows the convertibility of personal and social capital used in organisational structure to increase value, as well as knowledge convertibility through absorptive capacity. It also calls for knowledge transfer through socialisation and combination.

3.3.2 *Ba*

In knowledge convertibility, one cannot be free from context. In this light, Nonaka et al accept Bourdieu's historical accumulation by suggesting that socio-cultural and historical aspects are imperative for owner-managers and provide the basis for different people to construe information and create meanings. *Ba* is therefore a context influenced by different socio-cultural and economic factors in which "information is interpreted to become knowledge from interaction" (p14). Studies on knowledge processes therefore relates on owner-managers, based on a premise that they are the centre of dynamic abilities (Grant, 2005) and act within a shared 'field' to create knowledge.

Providing a shared vision in motion, however, could set constraints for individuals in their mental frames. As such, it may be necessary for owner-managers in a given network to share experiences and common language. This aids knowledge creation by collating the information, integrating it and communicating for timely use in business processes.

3.3.2.1 *Ba* and communities of practice

This concept of *ba* has been associated with that of 'communities of practice' (CoP) with differences in space and time. Nonaka et al suggest that while a CoP is "a living place" (p15) where owner-managers learn ideas embedded in the community, *ba* is a living place where novel ideas are produced from shared information. While learning takes place in any CoP, *ba* needs positive mindset for knowledge creation. Boundaries to a CoP are determined by the tasks, culture and history of such communities. Stability is important for a CoP, as it needs an identity and creativity may be stifled. On the other hand, the frontier of *ba* is free-flowing and adaptable suggesting a present and evolutionary world view; it is produced, acts and vanishes according to need. In a CoP, changes primarily occur at the micro level, as learning takes place while in *ba*, changes occur at all levels, as participants think entrepreneurially to remake their environment. Nonaka et al. (2000) suggest that there are originating, dialoguing, systemising and exercising, defined by two dimensions of interactions: individually or collectively and

"...through face-to-face contact or virtual media such as memos, e-mails or teleconferences" (p16),

This is illustrated in Figure 3.3.

Ba Matrix

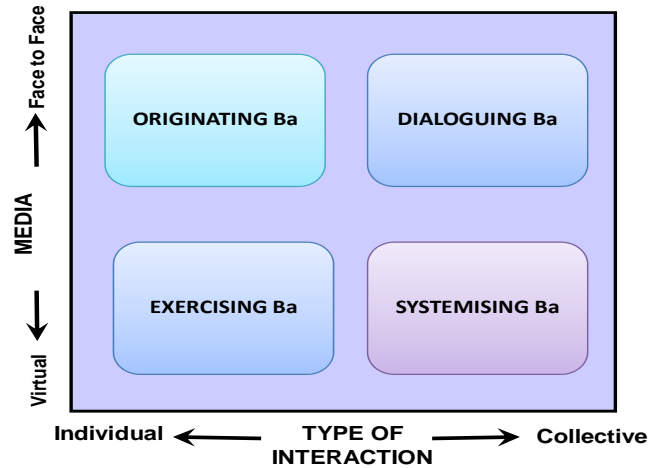


Figure 3.3: Types of *ba*

3.3.2.2 Originating *ba*

Originating *ba* prescribes a place where individuals share experiences. It is a context for socialisation, as the best way to capture bodily senses and psycho-emotional reactions, which are important in tacit knowledge sharing (p16). It is seen as a mental view, where an owner-manager thinks entrepreneurially and carryout actions. From this emerge attributes which form the foundation for knowledge convertibility.

3.3.2.3 Dialoguing *ba*

Dialoguing *ba* is combined interactions in which thoughts are shared, converted into universal terms, producing new concepts. Such knowledge is shared, articulated and reflected on through dialogues. It is more

“...consciously constructed than originating *ba*” (p17)

Building social capital with individuals possessing specific knowledge and capabilities is crucial in producing and sharing new ideas for capital convertibility.

3.3.2.4 Systemising *ba*

Systemising *ba* is combined and virtual interactions which provide a place for the blending of overt information transferred in written form. Many businesses use electronic mailing lists,

“...through which participants can exchange information to gather and disseminate knowledge and information effectively and efficiently.” (p17).

This has to consider the informal nature of SMEs

3.3.2.5 Exercising *ba*

Exercising *ba* is individual and virtual exchanges, mainly through internalisation, when

“...individuals embody explicit knowledge communicated through virtual media.” (p17).

This produces a context where knowledge is gained through continuous reflection through action to create new types of knowledge.

3.3.3 Knowledge Types

In order to better appreciate the process of knowledge creation, acquisition and exploitation, it is necessary to examine the knowledge types proposed by Nonaka et al. (2000) in experiential, conceptual, systemic and routine knowledge, summarised in Figure 3.4.

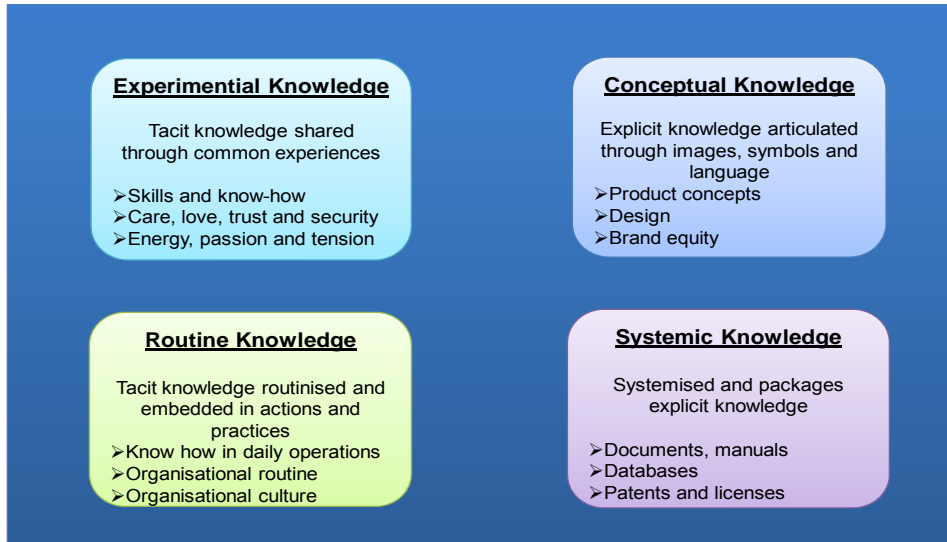


Figure 3.4: Knowledge types

3.3.3.1 Experiential knowledge

According to Nonaka et al, this form of knowledge is tacit from shared experience between owner-managers and their network partners. The know-how accumulated by people through experiences is an example of this, as well as emotional knowledge. From their tacit nature, they are hard to assemble, evaluate or convert. SMEs have to construct their own experiences to produce specific, difficult-to-imitate capabilities that may provide sustainable competitive advantage.

3.3.3.2 Conceptual knowledge

This is explicit knowledge represented by images, symbols and language, and relies on concepts held by stakeholders of a business. Examples include perception of brand image by customers and perception of quality or designs by members of an

organisation. With a tangible element, conceptual knowledge is easier to recognise than experiential knowledge, even though it is still difficult to understand perceptions.

3.3.3.3 Systemic knowledge

Systemic knowledge is parcelled overt information, like ICT and cuts across internal and external environments. It is the most identifiable type of knowledge and the present focus is mainly on managing these types, such as intellectual property rights.

3.3.3.4 Routine knowledge

After the systems are put in place, routine emerges in processes rooted in the actions and practices of a business which forms the basis for further entrepreneurial capital convertibility. Examples are the know-how, organisational culture and routines for operational duties. Through repetition, certain ways of thoughts and action are reinforced, accumulated and shared between business partners, with the likelihood of influencing external constituents. This kind of knowledge is seen as very practical for owner-managers and their teams and could increase convertibility (Feldman 2004).

3.4 Knowledge convertibility enablers

Using present knowledge, an SME could create novel knowledge through the SECI process in *ba*. Ideas produced become part of the knowledge resource and a basis for a new spiral of knowledge convertibility.

3.4.1 Knowledge management

The knowledge convertibility process cannot be organised in a predictable way, as it is very dynamic. Owner-managers can lead to actively convert knowledge by looking at various options and thinking entrepreneurially. Owner-managers can provide the vision, promote sharing of ideas and promote the nonstop cycle of knowledge convertibility.

3.4.2 Providing the vision

To convert knowledge on a long term basis, an owner-manager needs a vision that integrates the whole business. The owner-manager articulates the knowledge vision and communicates it internally and externally, giving a path to the convertibility process by asking such questions as

“What are we?, What should we create?, How can we do it?, Why are we doing this?, and where are we going?” (Nonaka et al., 2000, p23).

The aesthetic values of higher aspiration may set boundaries to convertibility and knowledge creation. As well as routines, the value framework establishes what kinds of information is required and produced, promoting the impulsive dedication of knowledge workers. To bridge the gap in shared visions, values and visions need to be synthesised with the aspirations of those involved through concepts and images that promote convertibility and provide a direction for members, managing the

elements of the knowledge convertibility. It also has to provide a *ba* for entrepreneurial thinking. An inventory of the knowledge is necessary to create a way to assemble, maintain and use existing knowledge resources to convert capital and create more value.

3.4.3 Autonomy

Autonomy increases the probability of finding important information and motivating owner-managers to think individually and create novel knowledge.

3.4.4 Promoting the SECI process

The SECI process should be identified and promoted by synthesising information from both internal and external players such as employees, customers and suppliers to incorporate new concepts, technologies, products or systems. This is possible through constant reflection on actions and routines. Owner-managers also need to be alert to necessary changes, be capable of creating their own concepts and articulate language effectively to transmit meaning.

3.4.5 Redundancy

Redundancy implies conscious overlap of information about business activities and responsibilities which speed up convertibility by promoting socialisation, helping others appreciate their roles and the freedom to engage in entrepreneurial capital convertibility.

3.5 Knowledge convertibility in SMEs

Beijerse (2000) analysed knowledge management (KM) practices in SMEs and suggests that they may manifest lower levels of KM recognition and fewer strategic, tactical and operational initiatives than businesses as a whole. Lelic (2001) reports that KM implementation faces several unique barriers in SMEs, including those which do not have the vision for KM development, thinking only in terms tangible cash flow and market share, and not having knowledge capture, access and reuse processes well thought through for eventual convertibility and decision making. Evaluations of SMEs have indicated a lack of investment in IT systems (McAdam and Reid 2001) as a major constraint in KM and SMEs need to continuously renew their knowledge (Martin et al., 2002).

Once an SME has committed to developing KM practices, implementation may be approached in many different ways, but always within severe resource constraints. This process of KM practices in SMEs has been argued to be more holistic (Sparrow, 2001) due to the centrality of owner-managers in most aspects of business decision making. Consideration needs to be given to the role of many aspects of their thinking as the first step in convertibility, including their utilisation of personal understanding, episodic knowledge, critical experiences, tacit feel and unconscious interpretations in reasoning, mood and creativity (Sparrow, 1998). Because of the necessity to survive, SMEs may need to address risk management in dynamic environments, consider strategic and operational management requirements; engage systems, business and organisational developments; and consider

“...knowledge in use, knowledge systems, knowledge renewal and knowledge economy management capabilities.” (Sparrow, 2005, p139)

3.5.1 Knowledge in use in SMEs

Owner-manager's knowledge and decision making is related to business growth (Ghoshal et al., 1999) and is defined as the traits, motives or skills of a person linked to superior performance. An owner-manager's worldview, or lack of, is shaped by these knowledge, traits and values, influencing thinking processes and convertibility. Values and culture innate to owner-managers are also affected by the 'field' and spill through the organisation members, forming main business processes in routines symbolising internalisation of "know-how", organisational culture and embedded practices. Sparrow (2005) considers these and divides knowledge in use into what is it, where it comes from and whether the organisation knows its value. Knowledge is not just embedded in people but in

“...repositories and reservoirs or materialised into ‘knowledge objects’, such as documents.” (Garavelli et al., 2002, p270).

According to Kirzner (1982), the challenge is how to make this explicit through identification or discovery, and converted into various forms to earn economic rent. Owner-managers, in trying to be entrepreneurial, must then know what they know and lead in this aspect.

3.5.1.1 Knowing what we know

Using sociological theory, owner-managers operate in a system of institutions which directly or indirectly affect their behaviours. This is supported by social capital theory on the various affiliations that each person becomes involved in. According to Bourdieu (1986), the affiliations also constitute data accumulated in a continual process through the senses or social competence. Following on with the psychological perspective, the process adds to the body of data. The gathering of such data comes through customs, rules, education, critical experience, routines and other aspects of social, human and economic capital which influence the personality.

In order to come up with ideas, owner-managers will need to be aware of these entities in one way or another through the sub-conscious or by being conscious. Awareness will provide the ability to differentiate various entities by identifying patterns through constant experimentation and reflection. This greatly influences the perception, as meaning is gained through the grouping of similar entities into units, providing a sense of a mental map (Sparrow, 1998). Once an owner-manager can perceive, convertibility can then occur from the subconscious to the conscious for the sake of returns and is therefore seen as a creator of value through creative processes (Deakins and Freel, 2009). Creativity is the “invention of novel, useful ideas or problem solutions” (Amiable et al., 2005, p368). This then requires the integration of various units in the formation of new concepts, a view of the world or an idea that must be refined through constant reflection in a mental mode or representation. Past experiences, present circumstances and a need to be entrepreneurial from the trait based theory will aid in making a judgment on the idea, before convertibility into the next stage of knowledge. The ability to recall past events and to share these with others is evidence for the existence of mental processes as owner-managers reflect on situations and make choices for actions. Awareness provides the ability to think of possible ways of dealing with a situation through the existence of social processes.

This aspect of idea production is therefore a function of the human brain, which is limitless in capturing, processing and emitting new thoughts. It is a cognitive process by which information stored in the subconscious or unconscious gained from the primary senses is made conscious. The visual sense plays a pivotal part in this process as it communicates the nature of the external world to the brain for perception, concept formation and mental entities. It is therefore articulated by Schein (1992) that this aspect of idea creation in the mind comes from our previous associations, socialisation, education, experiences, values and beliefs, which condition the mind at specific points in time to rationalise and give the impression of knowing. Whilst this creation resides in the mind, the individual is able to take

advantage of it as it is distinct from that of others; and classed as tacit feel, which is very subjective. Social institutions are the main source for the mental model shaping individual cognitions (Sparrow, 1998). This cognitive process influences SME decision-making, as it operates on different levels: individuals, groups, organisations, and even industrial sectors (Casey, 1997).

However, in a social world, the production of new ideas or problem solutions is not sufficient to meet the definition of entrepreneurial opportunity identification. In order to make a return, calculated risk through exercising and dialoguing *ba* is necessary. This may be motivated through common language, as explication of such ideas or knowledge depends on the cognitive ability of the recipient to put meaning to it and understand the new. It also requires the traits of the need for achievement, the desire to have control over the environment, self efficacy and social competence as motivational factors. Language could take the form of metaphors, rhetoric and allegory to convey meaning. Metaphors are important in the process of holistic reasoning and give meaning to concepts, concealing and highlighting certain characteristics. These forms of communication, verbal or written, are seen as the outward representation of the mind (Sparrow, 1998) and therefore in accordance with the social world, act as inputs into another process through originating *ba* in skills, passion, trust and positive energy for socialisation. Therefore, in securing resources for convertibility, the selling of ideas will be desirable, starting with self reflection, the self efficacy to convince self and others that an idea is good, and selling it to stakeholders taking an inward-outward view. .

Self knowledge may also rely on the cultural dimensions of House et al. (2004). Knowing what we know therefore indicates convertibility from social to cultural and human capital and if symbolic, then it is knowledge, and convertibility into economic capital is possible through social capital. In therefore gaining a return from mind creation, the owner-manager is involved in the SECI, *ba* and knowledge process for innovation. The owner-manager is therefore considered as being continually new in

the market, stemming from the constant rethinking and creation of new ideas, processes and products to satisfy customers.

3.5.1.1.1 Decision-making

The cognitive approach to studying entrepreneurial behaviour focuses on decision-making. Owner-managers often have little time to make decisions and must use imagination to help them in this; however, this could lead to bias, overconfidence and errors of judgement (Busenitz and Barney, 1997). Owner-managers often have to make decisions in situations where there is a paucity of information, such as a lack of historical trends, no previous performance data or little market information. Busenitz and Barney argue that such owner-managers tend to display overconfidence, by making judgments before building concepts through thinking, compared to the cautious approach taken by traditional managers. Such overconfidence may help to convince other stakeholders of the value of the opportunity. Additionally, they may extrapolate from personal understanding and experience, emphasising the risk taking factor. This suggests that someone seen as an entrepreneur thinks differently from a normal owner-manager. It also suggests that entrepreneurial owner-managers may not have a greater risk inclination than managers but, as risk takers, they try to understand how risk intrinsic in entrepreneurial opportunity might be managed.

3.5.1.1.2 Applying the Schumpeter and Kirzner approaches

Kirzner and Schumpeter approach decision making in different ways, based on judgments. Kirzner's approach is more linked to the causation methodology largely used in marketing (Helmersson and Mattsson, 2007). The owner-manager frequently begins with a specified set of possibilities, a fixed goal, and a defined market. This is subsequently broken into appropriate sections based on rigorous market investigation, market forecasting, segmentation, classification, benchmarking,

positioning and perceived sound decision making after analysing possible options, risks and opportunity costs for each market segment (Sarasvathy, 2001). This is to avoid the factor of uncertainty. A problem is identified, a proposed solution devised and data is gathered and analysed for all possible alternatives. A comparison of alternatives is made and a rational choice for implementation is made. Irrational decision making or risk taking is considered an uncomfortable activity for these kinds of owner-managers. Decision making adopts a future orientation which states that the future can be predicted and controlled and follows a more realised non-entrepreneur form of owner-managers.

Schumpeter's approach is linked to an effectuation methodology, indicating a mixture of rational and emergent decision making, where risk is high and with the possibility of high returns. In the effectual approach, owner-managers commence with three aspects;

“...who they are, i.e. their traits, tastes, and capabilities; what they know, i.e. their education and experience; and whom they know, i.e. their networks.”

(Sarasvathy, 2001; p250)

Primarily, it is not a process of formal planning and choice, but that of taking advantage of opportunities as they present themselves. The entrepreneur is seen here as having a broad vision and being ready to take risks, with goals that materialise over time based on the thinking and ambitions and influenced by objectified cultural capital and social interaction processes. This mix of strategies provides flexibility and adaptability abilities.

Skilled owner-managers are capable of using both approaches, but may have a preference for “effectual reasoning” (Sarasvathy, 2001; p254) in the early stages of a business as it caters for flexibility. Creativity is paramount here, so demands entrepreneurially-orientated individuals. A future market is not taken for granted and customer relationships and management over the life cycle are important for

survival. Owner-managers who try to commercialise a new idea cannot rely on predictions about probable demand as a market may hardly exist. Based on this, uncertainty is welcomed rather than seen as a threat. Effectuation is therefore seen as the adaptation of a business to its setting, re-casting parts of the setting and producing new parts to align with its own structure (Dew et al., 2009). Drawing from this analysis, an entrepreneurial owner-manager therefore thinks effectually and believes that destinies are shaped and not predetermined; which is more related to a realised entrepreneur owner-manager.

3.5.1.1.3 Creative chaos in decision making

Creative chaos aids interaction between an owner-manager and the external environment (Schumpeter, 1934). As distinct from complete chaos, it is initiated in a business or its environment by owner-managers inducing a sense of entrepreneurial thinking and convertibility of capital. This may lead to 'unlearning', providing important opportunities for fundamental rethinking. The nonstop process of inquiring current practices stimulates *ba* into the various sections, leading to new processes, products and brands, and fostering convertibility.

For Schumpeter, a central question is whether competition has a tendency to put a business out of the market when checked against tendencies such as the sources of technological change. When the ultimate dynamic for change is exogenous, the function of research and development within the industry is fundamentally to spot new opportunities and to adapt to commercialise them. In such situations, the fact that a firm has been a triumphant innovator today does not necessarily position it favourably to grasp the important opportunities that will be presented tomorrow. In contrast, technological change is incremental at the SME level, in the sense that efforts to move ahead with technology today builds on what the SME achieved in the past through continuous evolution of thinking through flexibility and adaptability.

Dynamic capabilities thus echo an SME's capacity to attain innovative forms of competitive advantage supported by justified belief of its owner-manager (Scott-Kemis et al., 2005). However, this must go with the ability of convertibility for success. Bourdieu (1986) argues that economic capital is at the source of the other forms of capital but that the others produce their most specific effects only to the extent that they obscure the fact that economic capital is at their source. Convertibility may be enhanced by diverse perceptions, attracting likeminded owner-managers to form valued relationships (the social capital perspective), and leading to learning (human capital) through common language (culture) to gain economic capital.

However, only at a point where internal and external constituents have merged in *ba* can an owner-manager be confident of attracting the necessary networks and funds to convert by creating a new culture and business secret for competitive advantage. Figure 3.5 considers the process of justified belief, from subjective right brain issues represented in symbols, to an objective left brain option for resource acquisition and convertibility of entrepreneurial capital, taking into consideration the process of self reflection in both the creator and recipient of information.

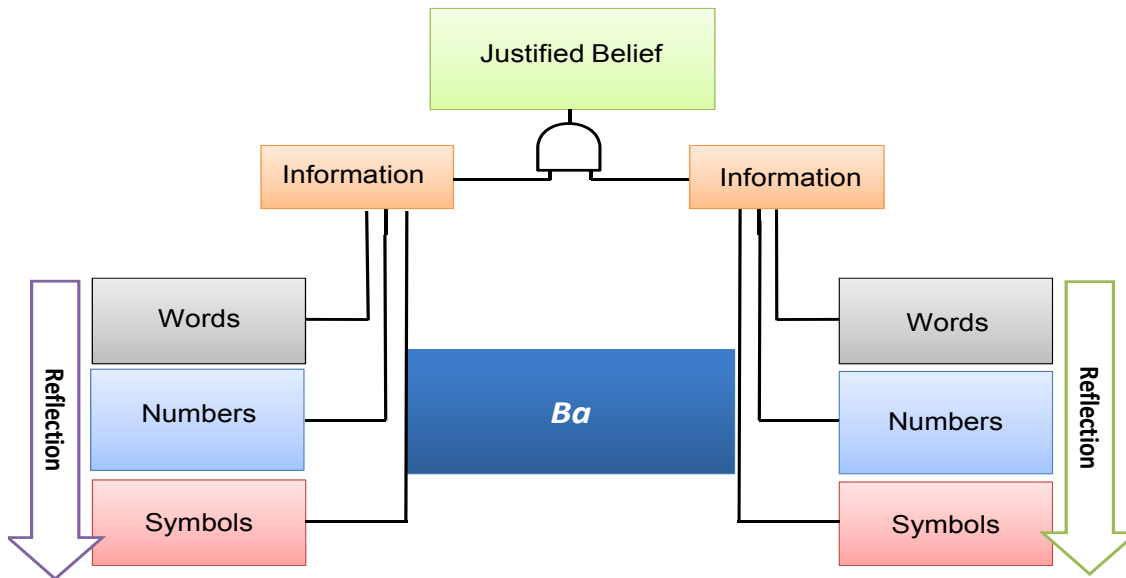


Figure 3.5: Knowledge sharing in an SME

The recipient is therefore able to freely and autonomously consider choices and make an informed decision.

3.5.1.2 Kinds of knowledge

Knowledge in organisations has been recognised to be a multifaceted mixture of different intellectual material and thinking (Sparrow, 1998) and competence ingrained in the framework of an SME, its ways of doing things and its environment. This requires a recognition of the subconscious, for new thoughts (Bonabeau, 2009) influenced by past experiences and visual ability; an approach that can establish interplay between the key features of the business and its competitive environment and the views of owner-managers of the current and evolving development needs. Stuart and Lindsay (1997) relate how organisational values, conceptions of competitiveness, strategic intent and philosophy of concepts such as customers, team working and relationships can influence the owner-manager's outlook. Interaction between

personal and organisational values can affect business performance and it is useful to establish owner-managers' views of existing and up-and-coming values based on entrepreneurial intentions and outcomes. Due to their centrality and the stages of SMEs, intellectual assets may be significantly embedded in human capital (Sparrow, 2005). The main frameworks supporting the SME at its early stages are likely to depend on the knowledge of the owner-manager and his team. This is usually given in routine knowledge based on past experiences and education. With originating *ba* providing a context for socialisation (Nonaka et al., 2000), it can be converted to experiential knowledge through critical thinking and autonomous reflection, highlighting new skills and common experiences. With this, new conceptual knowledge is possible in new designs and products ready for packaging in systemic knowledge through combination.

3.5.1.3 Forms of thoughts

In changing environments, detection of various thinking processes and insights will present diverse options to owner-manager in problem solving and opportunities. These are mainly influenced by owner-managers' experiences, which cultivate behaviours influencing mental models and mapping the way information is assimilated and absorbed. In addition, language, based on values and the interpretation of signs and symbols, has more than enough power to influence knowledge assets and aid in opportunity recognition and exploitation. Different belief systems and values could be pooled and used as a source of detecting the needs of new customer bases. By reducing the 'field' concept to *ba*, different thoughts can be externalised to form new concepts or ideas for exploitation and business growth.

According to Nonaka et al. (2000), *ba* can be created by design, or created instinctively. Owner-managers can construct *ba* using

“...physical space such as meeting rooms, virtual space such as a computer network.” (p14),

This could also be harnessed through shared visions. Forming work teams is a typical example, as well as choosing the right mix of people to collaborate. A connection of different *bas* based on shared visions will enhance relationships and owner-managers' alertness in connecting various *bas*, as the relationships between them unfold mainly through systems. Designing and linking *ba* is not enough for a business to manage convertibility and therefore it must be energised by focusing on the SECI process for entrepreneurial capital convertibility.

Therefore, being aware of the environment will keep businesses on an innovative edge, where creativity is prized in the creation of *ba* and SECI process, in which skills can continuously improved, new concepts enacted and systemised into databases, manuals, patents and licences, questioning existing know-how, routines and organisational cultures in the sense of a mind to body spiral, as noted by Little and Ray (2005) and Sparrow (1998), influenced by Bourdieu (1986), as illustrated in Figure 3.6.

Knowledge Created through a spiral

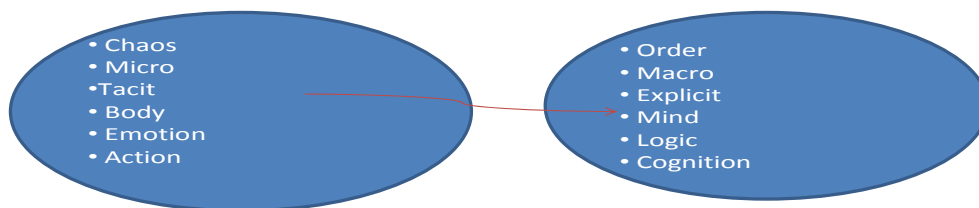


Figure 3.6: Knowledge creation in a spiral Source: Little and Ray (2005, p 24).

It is a continuum between the mind and body of an owner-manager leading to a change in paradigms for ultimate entrepreneurial and market orientation. The role of different considerations in business effectiveness in the creativity-innovation continuum can also come into play. The business stance concerning customer relationships has been shown to be developing and important in SME contexts (Chaston et al., 2003). The exploration of owner-managers' thinking in a team context is vital for knowledge convertibility.

Sparrow (2005) acknowledges that previous studies suggest that the competencies of owner-managers beyond business know-how shape their decision and actions. This follows a psychological perspective, in which the mentality of owner-managers is focused upon and located in the research evidence concerning their entrepreneurial traits. It considers relationships between the overall mentality of an owner-manager and organisational practices within their business. The justification of how to organise may not be easily transferable, as experience is reserved in human recollection. This conforms to Kolb's tacit feel model for competence development. Knowledge systems in SMEs sometimes try to absorb and communicate past experiences from case experiences that sustain knowledge transfer, addressing issues of who knows what with systemic and routine knowledge bases. In addition, there has been recognition that experiential knowledge is also necessary with issues to do with emotions, moods, trust and feelings.

In this context, emotions may be linked with specific occurrences. On the other hand, moods are rather feelings not generally identified with a particular stimulus. According to Sparrow (1998), emotions in the context of a workplace play a large role in how an SME communicates with internal and external constituents, thereby having a real emotional impact on owner-managers and teams. Positive emotions may help owner-managers obtain favourable outcomes through their networks. On the other hand, negative emotions may adversely influence the process of entrepreneurial capital convertibility, and affect the perceptions of external constituents (Amabile et al 2005; George and Zhou, 2007). There could be many

consequences of allowing emotions to affect general attitudes or moods and managing them is a prominent feature of enterprise. Owner-managers who witness lack in confidence in their abilities to deal with a situation or in others could create negative emotions, which can be contagious. Showing stress may reveal weakness, therefore owner-managers may suppress negative emotions, leading to future consequences on SME performance. Positive emotions such as high achievement, pro-activeness, the ability to act autonomously and excitement may be associated with a sense of greater task management, persistence and enhanced cognitive activity. Being emotionally intelligent therefore requires a need for optimism, a positive mood, and entrepreneurial traits to convert capital in dynamic circumstances

Procedures that enhance an owner-manager and his team's knowledge gained from understanding aspects of entrepreneurial capital convertibility have been substituted for techniques that support the admittance and conveying of unconscious knowledge (Sparrow, 2005). There may be room for team members to act autonomously and take the risk of externalising their concepts confidently, making room for originating and dialoguing *ba* for socialisation and externalisation. With positive emotions and a locus of control, entrepreneurial owner-managers may want to manage this process by first considering their level of knowledge, as shown in Figure 3.7.

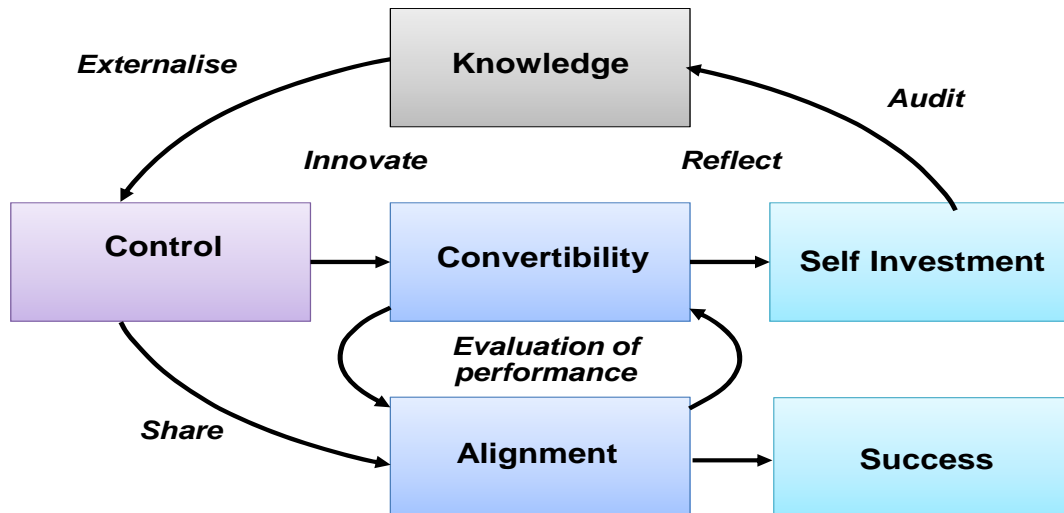


Figure 3.7: Psychological Aspect of Convertibility

They will need to be emotionally intelligent to ‘know what they know’ through a self audit in order to provide new ideas, socialise and externalise them to work teams, ensuring that they are interpreted in the same way as they were conceived for convertibility of capital at a point in time. This then needs constant reflection to adapt the processes and to evaluate performance for success in an appropriate *ba*.

Sparrow (2001) asserts that owner-managers may be aware of this knowledge but articulation may be constrained because of institutional factors and lack of self audit or even originating *ba*, as well as experiential knowledge. Sparrow suggests differentiating between levels of awareness of different aspects of knowledge is a division between thought processes that emphasises rationality, creativity and mood (Sparrow, 1998) from positive and negative emotions which act as motives for cognitive decision making and action taking. From this, he indicates that there is fact to report that some SMEs with authoritative styles of leadership create knowledge

locally, which seeks to limit decisions to more logical territory built from inert processes.

3.5.1.3.1 Applying Ned Hermann's four quadrant model

The divergence of psychological make ups will consequently need an audit of the mind to gauge different thought processes. Drawing from Ned Hermann's four quadrant model as illustrated in Figure 3.8, Arora (2009) reports that the process of convertibility will begin with one of the quadrants in the owner-manager's mind linked to a change in thinking in a particular paradigm. Whichever mixture is possible, the aim is to reach quadrant D, where opportunities are exploited by the owner-manager, suggesting a need to integrate all the views of various contributors.

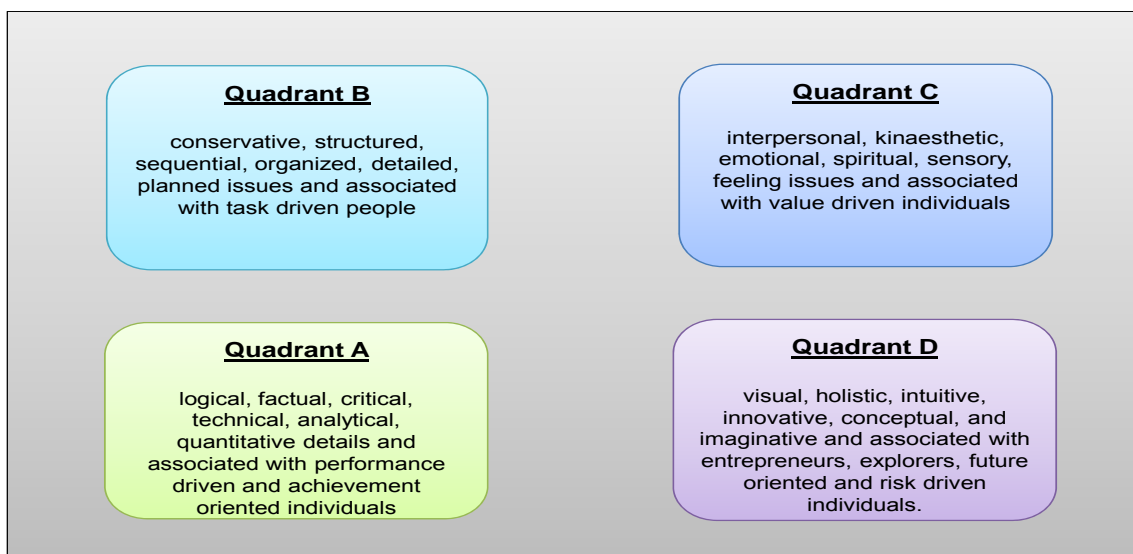


Figure 3.8: Ned Hermann's four quadrant model

Arora (2009) further states that while it is important to specialise in one area, an organisation exists when both left and right brains are synthesised, which may not be possible at an individual level. The production of a quality personality or team

therefore requires varied attributes or owner-managers with a focus in one of the four quadrants, and an overlap with the other qualities. For example, researchers may define a problem and explore the markets; and lawyers will aid in protecting any generated intellectual property. Owner-managers with such qualities are good strategic planners and socially competent, creating a *ba* where ideas and technology flourish. Such owner-managers stay alert in dynamic economies.

Requisite variety aids this process, maintaining equilibrium between order and disorder. An SME's internal variety needs to match that of the environment to better deal with turbulence. To handle contingencies, an SME needs requisite variety, including organisational integration and effective adaptation to environmental changes.

3.5.1.4 Types of thinking

At the conscious level, owner-managers will be able to use their intellect and analyse situations to devise different options and plans. In this sphere, Sparrow (1998; 2005) argues that vital connection between drive, imagination and knowledge capture within teams in large organisations and SMEs may be beneficial from a suitable blend of combining factors. However, creativity may be limited by work environments structured around routines. In a similar way, passion that can go together with familiar collaboration may be given up to emphasise measured and measured analyses. In various settings the owner-manager may portray different cognition due to social competence, and solve problems through abstraction, organisation of thoughts and reflection on these thoughts to arrive at a solution, as illustrated in Figure 3.9. On the other hand, through intuition, an owner-manager can use different thinking to devise the solution.

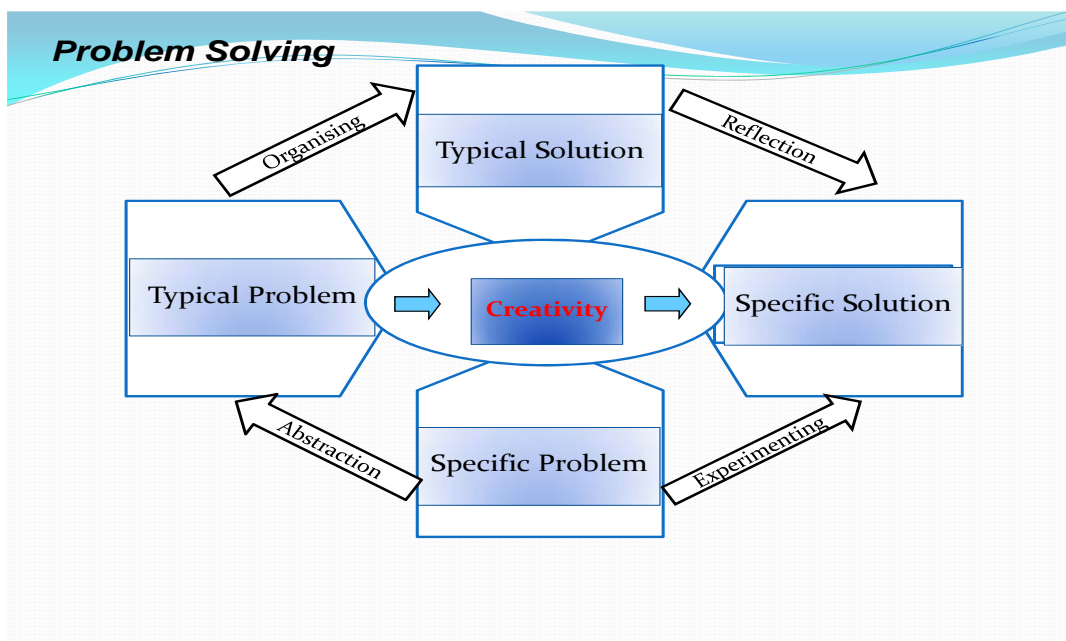


Figure 3.9: Problem Solving Cycle

Reflection on knowledge processes may be able to improve practices (Sparrow et al., 2009). Sparrow et al highlight reflective thinking to support knowing processes.

Experiential reflection focuses on interaction with the world, abstracting from practical experiences that are considered significant. Presentational reflection enables the emergence of relevant knowledge from experience leading to concept formation influenced by dialoguing *ba*. Critical reflection is an acknowledgment and investigation of the pragmatic and historically experience, breaking down embodied aspects through exercising and originating *ba* and thinking ahead.

3.5.1.5 Knowledge Recognition

Management in an SME involves appreciation of the progressing dynamics of resources convertibility towards the vision of satisfying customer needs. Sparrow (2001) asserts that knowledge processes may be restricted in worth in an SME scenery if they are not fully defined and may lead to a situation of non-identification, where there are still dreams and 'entrepreneurial intention (Chell, 2008) is low. Motivational elements will be necessary to bring forth the possible aspects from the mind to be integrated in systems. Reliance on the knowledge and experience of the owner-manager may be a cause for concern in SMEs. Such would require rethinking of current structures for convertibility of capital to occur, as suggested by Blaug and Lekhi (2009). For an owner-manager or his teams to become entrepreneurial, focus must be placed on autonomous thinking, risk taking, need for achievement, competitive collaboration and innovation, as areas to be encouraged based on needs and wants. Once this knowledge is captured, it must be assimilated in systems, of which information systems are becoming more prominent through technological change.

3.5.1.6 Summary

Knowledge in use can be related mainly to the SECI process of knowledge convertibility, which involves knowledge accumulation as owner-managers collect information from business sites, share experiences with supply chain partners and employ dialogue with stakeholders, where they engage in bodily experiences;

obtaining ideas from socialisation; and conversion of latent knowledge. Owner-managers produce an environment that allows others to understand their capability through best practice.

Schumpeter's owner-manager is innovative in a way that upsets the economic equilibria. Kirzner suggests that entrepreneurs have advanced information: are alert to opportunities and with imagination, can interpret information, leading to the creation of opportunities. For both Schumpeter and Kirzner, an owner-manager is entrepreneurial if he possesses and uses entrepreneurial traits, which involve being aware of the knowledge in use around and within them, capturing such knowledge and embedding it in systems for continuous convertibility.

It can therefore be suggested that entrepreneurial capital convertibility will be influenced by understanding of knowledge in use in an SME.

3.5.2 Knowledge bases and systems

Once knowledge has been captured, it is necessary in a changing environment to retain, integrate and share it. The focus in the SECI process is on combination, highlighting social connection through systems and providing systemic knowledge and *ba* with a human capacity to absorb such knowledge. For example, Yli-Renko et al. (2002) examine the influence of social capital and knowledge capturing for nascent technology based SMEs in building competitive advantage. Their results report that social capital is linked with knowledge acquisition, and such knowledge from stakeholders influences the level of competitive advantage, as demonstrated by Matlay and Martin (2009), in collaborative strategies with the help of ICT. Matlay and Martin thus provide observed evidence for the links between social capital, knowledge acquisition and exploitation, where absorptive capacity is relevant.

Knowledge creation and acquisition can be achieved through research, training, benchmarking and recruitment. These can therefore form a scheme for knowledge

storage through ICT. It is, however, necessary to assess how efficiently and effectively people access the knowledge that they need; whether it is all in the heads of individuals or embedded in systems.

3.5.2.1 Knowledge location

Knowledge can be embedded in an SME in many different ways: in the understanding, experiences, skills, culture and personalities of the workforce; through the extent to which processes and practices are common throughout an organisation; through the extent of intellectual property held (e.g. number of patents); and through the sophistication and effectiveness of the information and communication technological systems.

The developments in knowledge management in SMEs need to emerge more from an essential conceptual understanding of the fundamental principles of a knowledge system. Knowledge in SMEs has to be seen as a priority, with implications for both human and computer-based processes, thus leading to added value. Blaug and Lekhi (2009) report that, the size of SMEs leads to low levels of tangible resources, such as machinery. Moreover, they do not have access to complex IT-based intangible resources like billing and automated procedures. As such, they tend to develop information through manuals that can be shared. In a dynamic environment, human capital could aid in new concepts and processes of working capital management through the enhancement of intellectual capital.

3.5.2.2 Features of knowledge systems

The technological focus in large firms and SME knowledge systems varies, especially in ways to obtain information from users. It is the ease of this procedure of technology that has proved to be crucial in SMEs KM approaches. Integration is necessary for knowledge diffusion and use in SMEs and may lead to them excelling in the quality of services, speed, flexibility and dependability, which will reduce costs.

Gray (2006) stresses the connection between innovation and the adoption of ICT, and the function that ICT plays in enhancing the speed and access to new information. He asserts that the significant effects of technical studies on absorptive capacity suggest that the direction to adopting ICT may lie in enhancing technical skills through e-learning and ICT based training for those areas that are more open to this style of learning. Bhatt (2002) recognises that the appropriateness of KM techniques might be related to the level of routine in tasks and of the interdependence of interactions between people. ICT may, however, encourage routine and may stifle innovation, but with changes in technology, the constraint is for the owner-manager to keep up to speed with change by continuous learning and experimenting.

The internet also is redefining relations between SMEs but also between SMEs and their consumers, enabling them to sell products and services around the world as well as to learn. Data indicate that on average almost one-third of all businesses use the internet for purchasing and about one-fifth for selling goods or services (OECD, 2009). Knowledge creation and entrepreneurial capital convertibility process could be improved by integrating different information with speed, and providing equivalent access to information. When information asymmetry exists, interaction may be limited, hindering the exploration and interpretation of novel information. Matlay and Martin (2009) conclude that the adoption of ICT will aid this process, especially with the rise of e-entrepreneurs.

3.5.2.3 Intellectual property

According to Sparrow (2005), KM in large businesses has made use of intellectual property rights. The movements within intellectual capital in SMEs mirror diverse investment options. Some are designed, whilst others may be based on changes like succession. KMC studies have identified an important role for intellectual capital evaluation focus on managing the initiation of knowledge in an SME (Martin et al., 2002). Overall, it suggests that the SME knowledge scenery is unlike that within

larger firms. Structural aspects are also of significance, where SMEs protect their intangible resources with copyrights, trademarks and patents. Blaug and Lekhi (2009) suggest that studies show SMEs as not using intellectual property system, probably due to the cost involve in the process. Most SMEs protect their intangible resources through informal methods relying on high-trust relationships (Kitching and Blackburn, 2003) or keeping business secrets. Moreover, intangible resources that provide businesses with an edge tend to be protected through technological investments. Intellectual property protection in SMEs relies mostly on the exclusivity of the intangibles (Martin and Hartley, 2006), supporting locus of control and future orientation with reduced risk.

3.5.2.4 Summary

Knowledge systems will mainly start from a combination of knowledge. Acquisition and integration are necessary, by which owner-managers plan operations, assembling information using available narratives; process information by building and creating documents and databases; and building up material by collating data and conveying them into newly created concepts. Knowledge systems come through features which include coverage, accessibility, usefulness, efficiency and security, location in people, processes, ICT and intellectual property.

It can therefore be suggested that entrepreneurial capital convertibility will be influenced by the knowledge bases and systems in an SME.

3.5.3 Knowledge and learning processes in SMEs

Learning increases the source of tacit knowledge which is unique (Liebeskind, 1996). Matlay (2008) indicates that there is a desire to use the capital in SMEs to advance learning. Nonaka and Takeuchi (1995) highlight the importance of learning in knowledge creation and convertibility and Boisot (1995) considers the relationships between technology and learning. He shows how a focus on the social learning cycle could improve entrepreneurial capital convertibility and competitiveness. Owner-managers may then take measures to address learning and development for performance in SMEs.

3.5.3.1 Learning processes

An organisation can develop its knowledge base by using a number of processes. Examples include best practice networks, benchmarking and self-developing communities of practice. Maintaining an entrepreneurial and market orientation is based on the learning ability of an owner-manager and an SME. If the SME can scan, absorb and translate knowledge into a definite ability, then protection and elaboration is less applicable and a locus of control is maintained. For an SME to manage its knowledge resources, effective learning must be applied as they can only be sustained if effective organisational learning processes are present (Matlay 2008). SMEs must develop social competence, absorptive capacity and, more especially, the ability to be flexible and adaptable.

3.5.3.2 Learning support and evaluation

Learning within an organisation requires support for individuals to provide them with opportunities to learn through dissemination (e.g. noticeboards, bulletin boards, presentations, e-mail and intranets). Support is also needed to make learning easier or more effective (e.g. coaching and mentoring). An SME needs to evaluate its overall capability to learn and the effectiveness of different approaches and support mechanisms (Sparrow, 2001). An SME could also develop good access to practices

in external organisations which are valuable to specific work teams. It is possible, however, that elements of these best practices are potentially valuable to other work teams in the organisation and owner-managers could consider developing internal dissemination of good practice.

Owner-managers need to understand how they approach their learning so as to incorporate it in the organisation. Are they pragmatists, activists, reflectors or theorists and how do their staff approach these areas? This therefore suggests the importance of learning in convertibility of capital spearheaded by the owner-manager and will therefore be dependent on his style of leadership to encourage creativity and to keep on moving along the entrepreneurship process.

3.5.3.3 Summary

Learning is related to internalisation: from explicit to tacit through experience, in which owner-managers take part in activities with various stakeholders for product development. This involves a searching and sharing of new thoughts, and an attempt to understand visions and values through communications. In addition, it can be achieved when owner-managers take part in facilitating processes within the business. Owner-managers create work teams as a model, conducting experiments and sharing results. Learning aspects include main supply chain participants like partners, networks, trade bodies and the internet; its processes, which include those of best practice networks, performance indicators and communities of practice; and support in systems for dissemination, learning support and evaluation such as mentoring and coaching.

It can therefore be suggested that entrepreneurial capital convertibility will be influenced by SME learning.

3.5.4 Adapting to a global dynamic knowledge economy

There are many developments in the global business environment that emphasise the importance of understanding foresight and organisation. Most organisations agree that ICT will bring about improved communication with customers and suppliers and improve business efficiency. Succession issues in businesses and the factors that affect those which may help or hinder adaptability and innovation are discussed by Martin et al. (2002). There are strong grounds for arguing that the importance of intangible assets for business competitiveness in the knowledge economy is growing (Bounfour, 2003). The reasons for this include the dematerialisation of manufacturing activities as businesses invest more in developing and managing products rather than manufacturing them; the rapid growth and industrialisation of service activities and the effect on product costs; the growth of co-production in value creation and the role of intangibles in this; and the general emergence of knowledge as a major source of competitive advantage. SMEs need to identify their core capability, and develop and manage a business model that enables their requisite knowledge to be created and used to best effect. Assessing and managing the configuration of intangible assets for strategic readiness is one major management challenge of the time (Kaplan and Norton, 2004). In a globalised market, entrepreneurial owner-managers search for, discover and exploit new opportunities based on a need to succeed, take control of their environment, manage risks, stay alert psychologically and socially, innovate and adapt to the environment.

3.5.4.1 Competitive intelligence

Most organisations are now operating in an environment in which new ways of doing business, e.g. e-commerce and e-business, are being adopted and becoming the norm. These changes can be seen in the ways customers and competitors operate and the ways in which customers expect businesses to behave towards them. This is a result of the increased globalisation of sourcing by many larger companies and the

breaking down of traditional geographical and cultural barriers to how and where to do business. These will need competitive intelligence to succeed, which requires a focus on intangibles and their exploitation. Also required will be a knowledge management strategy to assess the knowledge required to run the business on a “day to day” basis and available to those who need it; that the knowledge that is key to the organisation's purpose is retained and developed; and that businesses need to develop a flexible and adaptable approach to processes, which requires constant change or innovation. A first mover approach and competitive collaboration based on developed self efficacy are relevant. However, to beat competitors and survive more effectively, there is a need for a high level of absorptive capacity. This therefore requires owner-managers to look more within and know themselves in order to develop knowledge.

3.5.4.2 Entrepreneurial capital in a dynamic economy

In uncertain competitive environment, a type of owner-manager with distinct behavioural type is needed when identifying core capabilities and appraising opportunities in the wider environment. Teece et al. (1997) focus on how SMEs gain advantage through learning in dynamic sectors. They introduce the concept of “dynamic capabilities”, (p234) where dynamic is the capacity to replenish competences so as to realise goals. Various actions are required to confront business problems, with speedy technological change. Capabilities emphasise the task of strategic management in adapting to converting resources in order to match the needs of a turbulent environment. The main point is to establish how dynamic an owner-manager is in the convertibility of capital. For example, how can human capital be converted into social capital and how can social capital convert into economic capital and vice versa?

Nelson and Winter (1982) consider the effects of evolutionary changes, positing the importance of understanding technological change and competition. In this approach, the key in enhancing dynamic capabilities involves plans that improve

absorptive capacity in products, marketing, purchasing, and labour relations, and by speedily converting capital considering changes in markets. Nelson and Winter suggest that the change in the socioeconomic system always impose change on the economic subsystem, posing new challenges to SMEs and owner-managers. To capture the characteristics of this needs a completely dynamic analysis. They note that one important area to apply evolutionary thinking is the dynamic analysis of economic change at the SME and the industry level, especially in situations where innovation is necessary for competition. This is then extended to the owner-manager, who acts entrepreneurially to shape both SME and industry.

3.5.4.3 Change management capability

A successful knowledge management strategy requires the consideration and organisation of many components in dynamic environments. Developments in a number of areas need to be implemented and integrated, which is also determined by leadership style. Change is essential for survival and how this is managed will determine its level of success. Mintzberg (1994) argues for a logical approach, with a combination of interactive, trial and error learning and participative management in the SME. To implement change, an audit of entrepreneurial capital may be necessary as well as s means of marketing the change idea to embrace new ways of thinking and action.

3.5.4.4 Summary

Change is a constant and owner managers must learn and adapt to a globalised world in order to succeed. The need of ICT cannot be overemphasised and a constant need to experiment and reflect on processes will stimulate desire entrepreneurial traits for convertibility to take place. Constructs into competitive intelligence involve knowing the knowledge economy, e-business, e-commerce, continuous changes in customer requirements, the need to build social capital, the need to reduce costs by outsourcing and developing new operations; knowledge

management strategy, which involves constant availability of knowledge, knowledge retention, flexibility and adaptability; and change management issues.

It can therefore be suggested that entrepreneurial capital convertibility will be influenced by knowledge of the general economic situation.

3.5.5 The integrated needs for knowledge in SMEs

According to Sparrow (2001), for effective improvement of knowledge management capabilities in SMEs, critical factors must be identified, such as the tasks people take on in dealing with any new concepts of a KM and the need for the general participation of owner-managers in KM implementation. This requires owner-managers' strategic thinking in KM initiatives, covering the SECI process, *ba* and knowledge types, as well as a response to the new features for KM implementation. This should involve well thought out processes, from identification to knowledge integration and execution

Explication of the knowledge base through system for knowledge processes is based in the consideration of certainty and measurement (Sparrow, 2001). This also suggests the need for a business to evolve by being pro-active, taking risks and setting achievable goals to innovate and beat competition. Overall, SMEs studies have shown how KM are created and implemented within an integrated structure, managing the effects in operational, strategic and uncertainty management (Sparrow, 2001). KM in SMEs may then be motivated by pressure from external influences such as recessions and knowledge of entrepreneurial capital convertibility may ensure their ability to be flexible and maintain their adaptability. According to Braganza (2004), KM implementation can focus on the individual, groups or teams, business processes, organisational functions and other inter-organisational collaborations, networks and the industry.

SMEs and owner-managers may have to find a synthesis between management and being entrepreneurial. In striving to perform better, beat competitors and survive in a

dynamic environment, entrepreneurial owner-managers will need to know what they know and be able to convert this into tangible benefits, as demonstrated in strategies. Many frameworks have been used in this respect, especially in larger organisations, to strategically mind map processes and can be adapted to SMEs.

3.6 Strategic thinking

Thinking is a process which takes into consideration causality; weighing up the pros and cons of alternative decisions (Sparrow, 1998). It also involves the selection of possible choices and how to be socially aware and devise ingenious ideas. If contrasted with more operational thinking, the difference is that it is qualitatively very different to operational thinking. It is very vague and can be challenging emotionally with a need to be entrepreneurial in order to succeed. A strategic map may then help owner-managers have a holistic view of their business and so carry out operations based on Kaplan and Norton's strategic map (Kaplan and Norton, 2004) which measures knowledge processes.

3.6.1 Measuring intangibles

Hall (1993, p607) defines intangible assets as:

1. the intellectual property rights of patents, trademarks, copyright and registered designs
2. trade secrets
3. contracts and licenses
4. databases
5. information in the public domain
6. personal and organisational networks
7. the know-how of employees, professional advisers, suppliers and distributors
8. the reputation of products and company

9. the culture of the organisation (e.g. its ability of to react to challenge, cope with change etc.)

Although such intangible or knowledge assets are prized as important assets for value creation and sustainable competitive advantage, there is little evidence of an effective system for converting and managing knowledge resources (Nonaka et al., 2000). A multiplicity of measures has been proposed and present systems are insufficient for capturing information, because of its latent nature. Knowledge resources need internal development to capture their full value as realised and its effective management. Another complication is measuring such resources in their dynamic nature.

Sparrow and Patel (2006) report that accounting methods focus on financial performance, neglecting growing contributors to the financial health of companies; the intangible assets are therefore not reflected on the balance sheet. They note that the true value of a company, the value of intangible assets and their contribution to business development, is difficult to ascertain. One further difficulty is that traditional accounting systems not only focus on financial and physical assets but also reflect past transactions. The Balance Scorecard was developed largely because of the exclusive focus on financial indicators in a management scheme. The main difficulty with this reliance was that the financial measures were “lag indicators”, which were an outcome of the past (Kaplan and Norton 2001, p18). The lag indicators include:

- return on investment
- revenue growth
- customer retention costs
- new product revenue
- revenue per employee

These measures need to be complemented by front-line indicators, which are considered to be the drivers of future financial performance. These are called 'lead' indicators and include:

- revenue mix
- depth of relationships with key stakeholders
- customer satisfaction
- new product development
- diversification preparedness
- contractual arrangements

Intangible assets encompass

“...customer relationships; innovative products and services; high-quality and responsive operating processes; skills and knowledge of the workforce; the information technology that supports the workforce and links the firm to its customers and suppliers; and the organizational climate that encourages innovative problem-solving and improvement.” (Kaplan and Norton 2001, p 88)

3.6.2 The strategy map

According to Kaplan and Norton (2004), the strategy map is a framework of the cause and effect interaction between the elements of a business' strategy; used to combine the four areas of a balance scorecard — financial, customer, internal, and learning and growth. It provides a standardized way to describe plans so the measures on the scorecard can be established and managed. In addition, it shows the time-based dynamics of a strategy and the connection between desired outcomes in the socio-economic perspective to exceptional performance in internal processes (Martin and Hartley, 2006). These processes in turn convey the organisation's value proposition to customers and support productivity objectives

from the financial perspective. It therefore integrates all the constructs of capital and knowledge management in SMEs.

Sparrow and Patel (2006) argue that some effort has been made in linking specific non-financial measures to financial performance. This goes hand in glove with a strategy map linking intangibles to tangibles in cause-effect relationships. Taking an overall view, strategic thinking will aid owner managers spot opportunities and make a decision on what and how to convert a mix of capital to achieve outcomes.

Sparrow (1998) notes that to manage effectively, the ratio between thinking and acting is 4:1 and that mapping strategy is a necessary tool for communicating and executing strategy. Therefore, the gap between thinking and outcomes is covered by the balance scorecard in describing, measuring and managing the steps, processes and actions to achieve strategic outcomes. In effect, a strategy map captures an SME's strategy in visual form (Sparrow, 1998) so that owner-managers can better execute their desired strategy through iterative and experimenting processes.

3.6.2.1 Summary

The use of a framework such as Kaplan and Norton's (2004) strategy maps is valuable in representing support for SMEs. It provides a useful basis for considering the comprehensiveness, balance, sequence and dynamics of the process of entrepreneurial capital convertibility and especially the role of social capital in learning and co-production.

It can therefore be suggested that entrepreneurial capital convertibility will be influenced by the strategic thinking and application of owner-managers' mental modes.

3.7 Design thinking

Design thinking is the capacity to integrate empathy for the context of a problem, creativity in the generation of insights and solutions, and rationality in analysing and fitting solutions to the context (Brown, 2008). Integrative thinking connects what is desirable with what is technologically feasible to what is economically viable. In strategic terms, it is seen more as systems thinking which gives more consideration to leading measures than lagging ones, focusing on solutions rather than analysing problems and is more akin to continuous business reengineering. Clark and Smith (2008) articulate that design thinking involves emotional, integral and experiential intelligence. It is a way of shaping the future in a dynamic ecosystem and being able to be flexible and adapt to change. Design thinking can lead to innovation and good design satisfies needs. Often an emotional link to an object is what engages individuals. It is a tool for inspiring experiences as well as giving a desirable form and requires ingenious and practical approaches to come up with good ideas and solutions. Its success requires empathy, integrative thinking, optimism, experimentalism and most importantly collaboration across disciplines.

Brown (2008) suggests that great ideas are borne out of brilliant minds, through imagination well beyond the abilities of mere mortals. It is a constant reflection on the processes that makes sense and achieves results and must pass through inspiration, ideation and implementation of SECI, *ba* and knowledge generation. Design thinking is seen as the core in competitive advantage and SMEs may require assistance with this. Martin et al. (2002) therefore call for support in ownership succession from external partners such as consultants and accountants, depending on the stage of development of the enterprise in order to aid strategy development. Design thinking suggests inner cognitive and social capital application which reflects the psychological and sociological views in mind-body convertibility. By so doing, owner-managers can reflect, experiment, learn and perceive their environment to

adapt the SME to changing conditions. This will involve an aspect of managing by perception.

3.7.1 Management by perception

The main issue here is that if owner-managers understand the inner and external environment in *ba* and field respectively, they will then be able to devise the right incentives for entrepreneurial capital convertibility. There is a need therefore to establish what lies behind tacit knowledge and motives by partners. Porter (1990) uses the value chain with interrelationship across the supply chain. While secondary functions may be in place for strategy execution, if the primary functions are not taken care of, the chain is broken. Value proposition must therefore be matched with organisational behaviour, reflected in the extent of efficiency and effectiveness of internal processes in communities of practice considering *ba* and the owner-manager with the external environment. When this is applied to knowledge, there is a system from acquisition, leading to learning processes as applied on the knowledge value chain as shown in Figure 3.10.

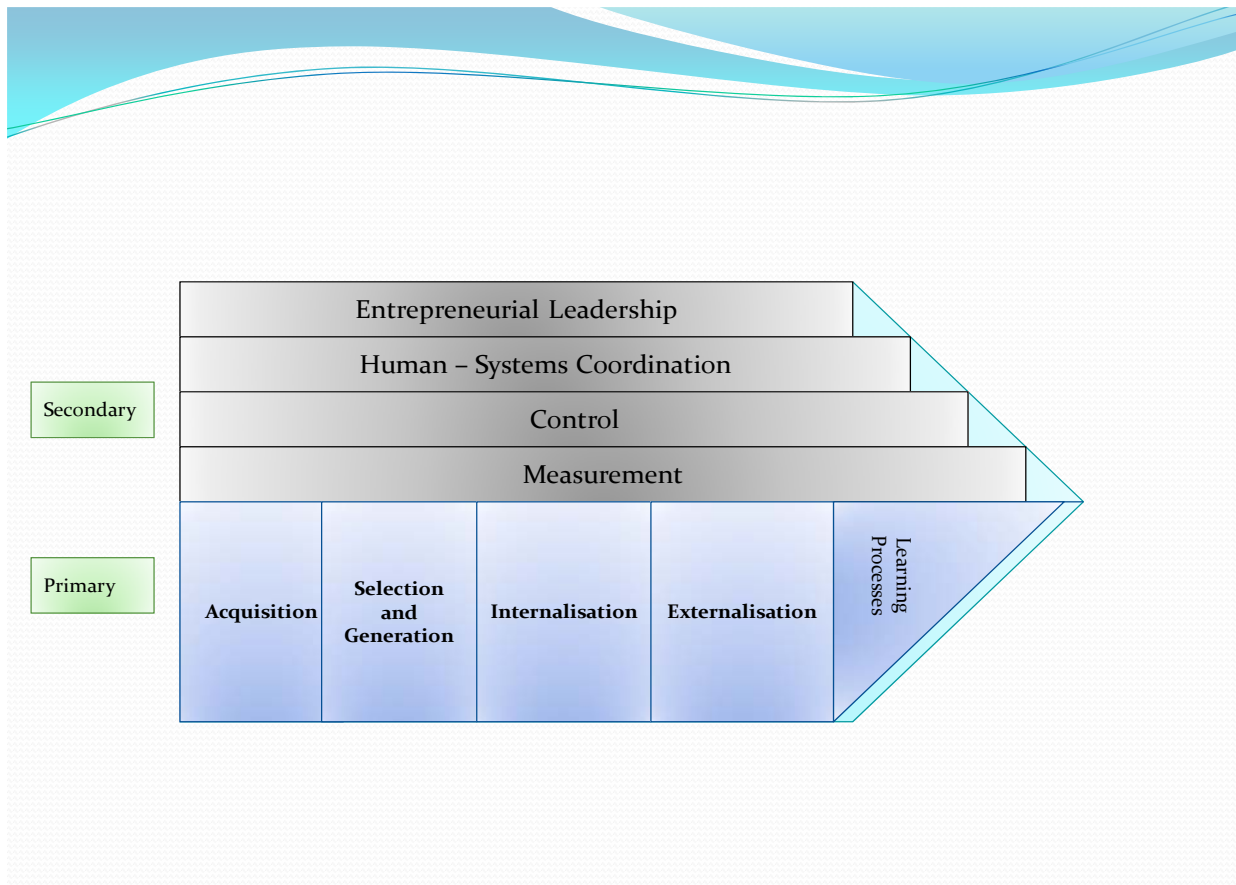


Figure 3.10: Knowledge chain model for competition

Understanding of needs in both internal and external environment will therefore lead to a situation of meeting such need by an entrepreneurial owner-manager through fundamental strategies of marketing.

3.7.2 Marketing by perception

It can therefore be argued that if we are attempting to achieve convertibility, it is also necessary to consider satisfying customers by understanding their feelings, emotions, perception and behaviours in order to make a return in symbolic capital terms perceived by others to form durable and valued networks. In-depth knowledge of entrepreneurial capital is necessary for marketing new ideas and preferences, fulfilling wants and needs in services and products. Customer knowledge is therefore

necessary for entrepreneurial capital convertibility and SME success in a dynamic environment.

3.7.3 Convertibility matrix

Considering a convertibility matrix with the main variables of the external environment in market uncertainty and technological uncertainty within a dynamic environment, convertibility can be portrayed in a matrix and emphasis placed on particular areas of an SME, as shown in Figure 3.11.

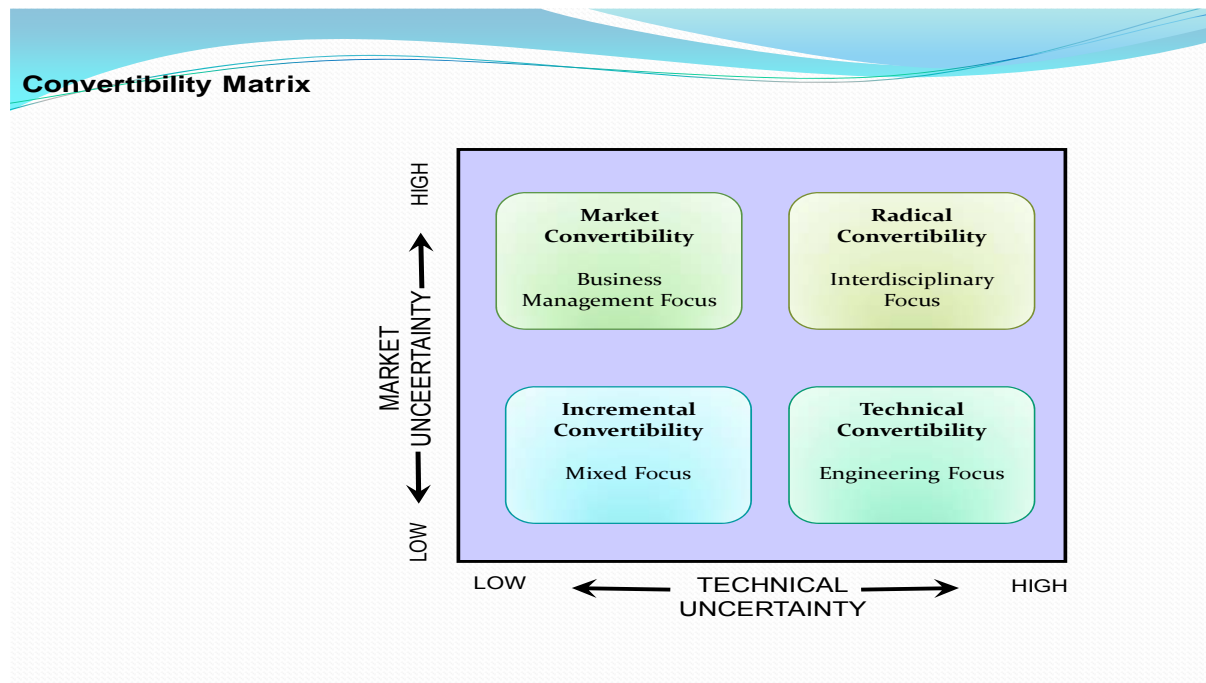


Figure 3.11: Convertibility matrix Adapted from Henderson and Clark (1990).

The owner-manager at any point in time will need to be aware of technical abilities and the nature of the environment to determine at which stage the SME is. When there is high market and technical uncertainty, owner managers will need to consider fundamental convertibility of all capital elements. This is where an external consultant may be relevant. With high market uncertainty and low technical uncertainty, the focus should be on social capital in terms of the market and network development. Concerning low market uncertainty and high technical uncertainty,

focus should be on human capital development through development of processes and introduction of ICT. Where there is low uncertainty in both market and technical ability, entrepreneurial capital should be applied incrementally to gain competitive advantage. From this, leadership is needed to change and direct the company towards success

3.8 The owner-manager as a leader

According to Gerstberger (2007), leadership styles are directly related to basic strategies of capital convertibility in SMEs. Four leadership styles are found: participative, autocratic, charismatic, and standard setting, each with advantages and disadvantages. These four leadership styles are characterised by a set of personality traits which are combined within one single concept and have their merits and demerits. The main advantage of a participative style is that of shared decision making and vision; the disadvantage is that it can hinder situations where speed and efficiency are required, leading to lost opportunities, especially in crisis situations. A charismatic style is suggestive of inspiring and motivating teams. This style is akin to effectuation, with a mixture of rational and emergent decision making in which risk is high and there is the possibility of high returns. On the other hand, an autocratic style has the advantage of being efficient, as decisions are made quickly and work gets done, especially in crisis situations. A disadvantage may be overconfidence, leading to wrong decision making which may affect performance in the short term. The standard setter has the advantage of meeting deadlines and completing tasks on time, while a disadvantage may be lack of a vision to capture opportunities.

According to McLeod (2012), leadership is differentiated from 'managing' in that it motivates people. These are further based on cultural values, as demonstrated by House et al. (2004), given that leadership is a function of institutional factors considered by van der Linden (2009) as psychological capital in relationship with cultural capital. In summary, capital convertibility takes an internal focus on the owner-manager's personality and traits for value creation. The question is whether

owner-managers spend more time 'managing' the 'justified belief' or whether they are more adaptive and flexible enough to survive in a dynamic world.

3.8.1 Leadership and adaptability

The process of developing adaptability starts with learning and practising cognitive and emotional flexibility (Orlikowski, 2002). Leaders face unparalleled challenges: new cultures, jobs and markets; and dramatic changes which may create feelings of uncertainty, self consciousness, and sometimes fear. Given these, it makes sense for owner-managers to be adaptable. Adaptability is no longer a coping mechanism but a leadership essential. Many of the challenges facing businesses today are adaptive challenges and while technical challenges require redeployment of resources, systemic challenges involve the creation of new processes, systems or skills (Calarco and Gurvis, 2006). The increased complexity of contemporary organisational challenges requires owner-managers to work in new ways by being skilled adaptors. The more positive experiences owner-manager have with change, the more they become skilled at adaptability. Speed and efficiency may therefore be necessary to seize opportunities and stay competitive in a dynamic world.

Entrepreneurial capital convertibility is necessary for SME survival. However, this is not constrained by a single SME but has the potential to develop through networks in a market where knowledge is held by different SMEs. It is therefore necessary to explore how SMEs can work with key stakeholders to enhance entrepreneurial capital convertibility.

It can therefore be suggested that entrepreneurial capital convertibility will be affected by the leadership style of owner-managers.

3.9 A model for consideration

Sparrow (2001) suggests that a new model of processes towards entrepreneurial capital convertibility in SMEs is being initiated from owner-managers' knowledge and experiences. The model which is based on Kaplan and Norton strategy map comprises all the components of KM and asserts that entrepreneurial capital convertibility in SMEs needs a process that recognises and uses contemporary thinking. He notes that piece meal enhancement can surface as owner-managers are encouraged to look at their practices from a KM viewpoint, and as such, the role of a consultant is necessary. The model also recognises that convertibility in SMEs go through three sets of procedures:

“...technological development; business development; and organisational development” in line with the convertibility matrix and are implemented in phases.

(pp10-13); see Appendix A.

3.9.1 Looking ahead

From the analysis of the resource based view of the firm, knowledge and dynamic capability theories, the main aim is to create and add value through the processes of owner-managers' creativity and their exploitation in convertibility from intangibles to tangibles and vice versa, through the knowledge strategy acting in a dynamic environment shown in the conceptual framework in Figure 3.12 in order to gain competitive advantage.

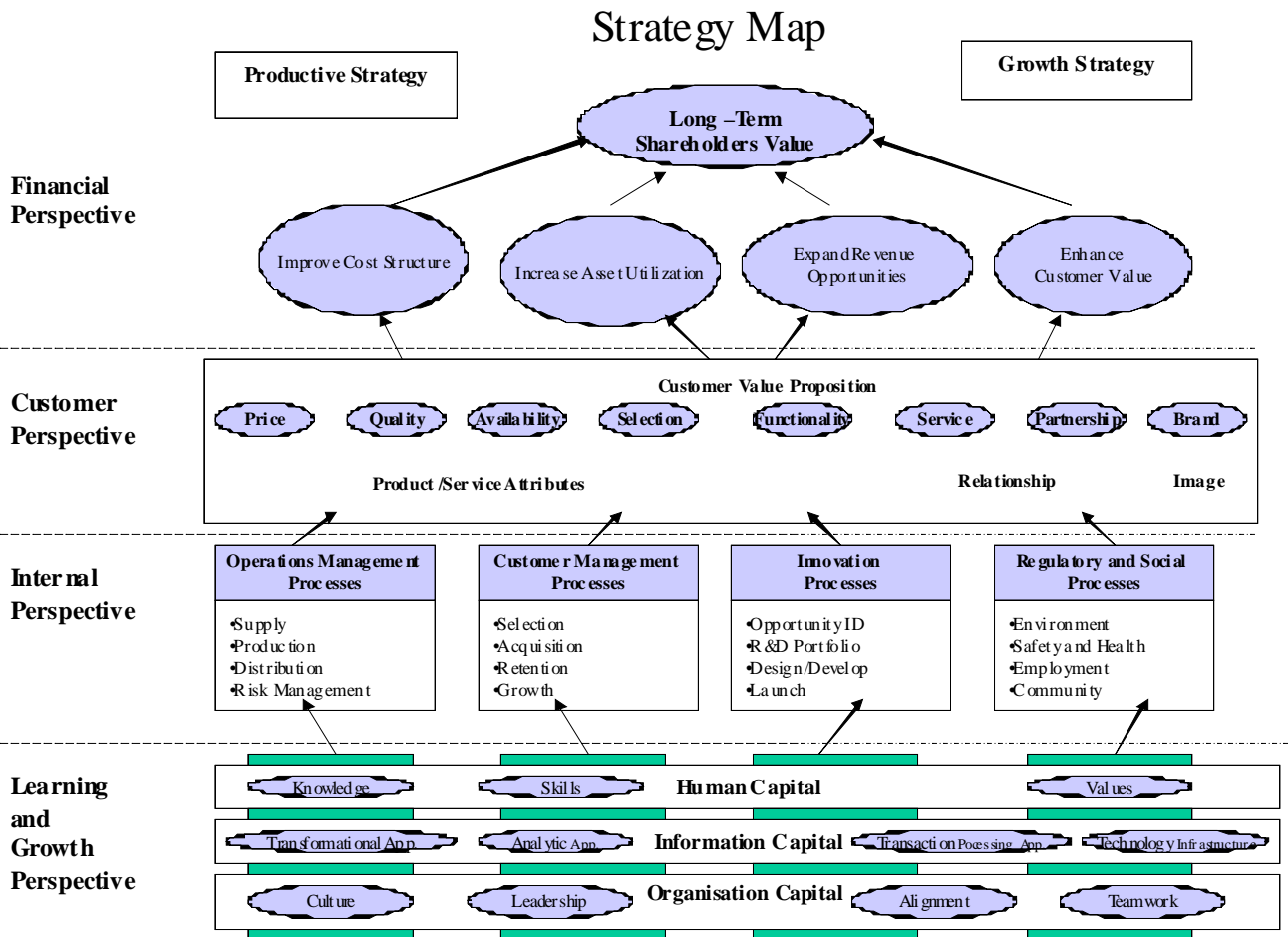


Figure 3.12: Conceptual Framework Source Kaplan and Norton (2004)

The figure shows a strategic thinking methodology for owner-managers in SMEs to adopt linking the learning and growth, internal, customer and financial perspectives of the strategy map to reflect cultural, human, social and economic capital. A move from one perspective to another in convertibility is enhanced by whole brain thinking (Arora, 2009) and personality traits giving room for knowledge accumulation, adaptability and flexibility in SMEs. This should be open for continuous experimentation, reflection and organisation in a dynamic environment in order to rethink and redesign processes from the learning and growth, internal and customer perspectives to ultimately achieve business strategy. As an owner-manager and

business organises, experiments with and reflects on these approaches, it can perfect its internal processes through the use of technology; think strategically to effectively serve external constituents by learning; improve on business strategy; and become adaptable to a dynamic environment through continuous thinking and to co-production.

Using the theoretical basis of Bourdieu's work on convertibility, the framework covers models of entrepreneurial capital (Firkin, 2001), knowledge management (Sparrow, 2001), and intellectual capital in the strategy map (Kaplan and Norton, 2004). It also incorporates design thinking based on the need to continuously learn and adapt. The literature has shown that in order to attain these goals in determining strategy, owner-managers of SMEs will need to think entrepreneurially, adopt design thinking which considers solutions and works behind or from strategic analysis, to tactical and then operational issues. This will only be achieved if SMEs understand their external and internal environment and if a number of tools have been introduced for reflection, integration and adaptation for a continuous fit with the environment and fundamental rethinking. However, this points more to the starting point for implementation of strategic options and analysis for SMEs (Martin and Hartley, 2006).

A modern tool effective in this regard is therefore the function of marketing by perception, which can shape the future in a positive way for SMEs. As discussed by Kotler et al. (2008), this will involve the understanding of psychological, personal, social and cultural relations in converting intangibles to tangibles and vice versa, thereby creating and accumulating wealth. Convertibility in SMEs is more market-driven than research-driven and owner-managers can be central in developing new markets through enhancing the dissemination of technology. According to the resource based view, competitive advantage depends on core capabilities and their convertibility through understanding of personality traits and knowledge which is a core capability in a knowledge economy. This knowledge resides in humans and is mainly tacit and intangible and requires incentive to motivate its conversion to

productive means. Entrepreneurial capital convertibility therefore requires an investment in both time (Bourdieu, 1986) and money by taking calculated risk based on sound judgment of opportunities and requires owner-managers with self efficacy and absorptive capacity, ready to be flexible and adapt in an increasingly knowledge-based economy.

3.9.2 Moving towards a learning SME

It is therefore imperative for owner-managers and SMEs to move towards SME learning (Matlay, 2008), supported by the importance of *ba*. The argument is that thoughts can only be understood in context (Lave and Wenger, 1991). On the other hand, *ba* has an influence on learning and balances the relationship between experience and outcomes (Haunschild and Sullivan, 2002). However, a focus on learning may support learning only to a point (Bunderson and Sutcliffe, 2003) after which experience becomes relevant.

SME learning occurs in *ba*, and the areas that are receiving increasing attention include aspects of the SME structure (Bunderson and Boumgarden, 2010); its network; and whether owner-managers interactions (Cummings, 2004). It is, however, necessary for owner-managers to guide thinking and learning. Feedback received from learning, emotions (Sparrow, 1998), and motivations also plays a key part in *ba* and entrepreneurial capital convertibility dynamics.

On the other hand, experience is what takes place in the SME as it performs its task and it is this that interacts with *ba* to create knowledge. For better results, it is necessary to convert emotions, feelings and more unconscious thoughts into analytical and logical thoughts based on *ba* (Nonaka et al., 2000) and the 'field' (Bourdieu, 1986) in order to arrive at entrepreneurial decisions capable of sustaining wealth. With this in place, owner-managers can work on mapping strategies with the use of a model of entrepreneurial capital convertibility dynamics for their businesses. Organisational *ba* includes all aspects of entrepreneurial capital which interacts with

experience, heterogenous or homogeneous, converting ideas to create knowledge. However, heterogeneous experience increases learning outcomes as compared to homogeneous experience (Haunschild and Sullivan, 2002). Additionally, contemporary experience may prove more valuable for learning than past experience (Benkard, 2000). Continuous learning improves owner-managers' knowledge which builds on experience to increase the level of entrepreneurial capital convertibility.

3.9.2 Conclusion

This chapter, by defining the entrepreneur and process of entrepreneurship, has examined the exogenous factors that may impact on owner-managers and the process of entrepreneurial capital convertibility. Focusing more on the owner-manager and using the knowledge based view of the firm; it integrates capital elements into knowledge based assets. Based on this view of the firm, it argues that intangibles are the source of competitive advantage for SMEs and grouped them into intellectual capital. It then focused on the source of knowledge in SMEs and especially on mental models, introducing the concepts of design and strategic thinking and considering various models of application of knowledge management practices in SMEs, with an emphasis on leadership styles based on personality traits. Martin and Hartley (2007) attest to this when they suggest that intangible assets are knowledge-based ones that are sources of future economic benefits and contribute to individual SME's exceptionalism, providing the foundation for for an owner-manager to act entrepreneurially, convert knowledge and gain competitive advantage based on the experience, visions and learning.

Based on the nature of SMEs, centrality, leadership and entrepreneurial type of owner-managers, the extant literature on entrepreneurial capital convertibility dynamics in SMEs has therefore provided the key aspects through which convertibility can be effected in terms of knowledge management development,

strategic thinking, design thinking. All these revolve around the personality of owner-managers of SMEs and the following propositions can therefore be expounded:

Proposition 1: Convertibility of entrepreneurial capital significantly depends on knowledge management processes in SMEs.

Proposition 2: Convertibility of entrepreneurial capital significantly depends on the strategic thinking of owner-managers of SMEs.

Proposition 3: Convertibility of entrepreneurial capital significantly depends on the design thinking of owner managers of SMEs.

The following chapter discusses the philosophical background of the research, with self-reflection by the researcher, different ways of approaching the research, the basis for choosing a particular strategy and the main steps taken to conduct the study. It concludes with ethical considerations and propositions.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.0 Introduction

This chapter considers the theoretical and conceptual issues pertaining to the research design. Various research philosophies and approaches addressed in the literature will be discussed, with particular emphasis on their application to the current research study. The chapter then outlines the research design and methodological decisions made to conduct the study. The final section of this chapter outlines the various data analysis techniques employed in the research.

4.1 Research aim and objectives

The aim of this thesis is to develop a model for entrepreneurial capital convertibility dynamics in small businesses. The focus is on the owner-manager's knowledge and experience and entrepreneurial traits in a dynamic environment. Variable are measured using metrics on the strategy map taken as representative of capital in an SME context and their convertibility.

4.1.1 Objectives

1. To investigate the concepts of entrepreneurial capital as presented in specialist literature.
2. To investigate the concept of convertibility dynamics and its relationship with entrepreneurial capital.
3. To synthesise and demonstrate these relationships amongst SME owner-managers' knowledge and experience.
4. To provide a model of entrepreneurial capital convertibility dynamics of SMEs.
- 5.

4.2 Research

Saunders et al. (2007) note that research involves not only the collection of data, but a systematic approach with a clear purpose for its subsequent interpretation. Research is therefore characterised by the systematic gathering and analysis of data with a clear purpose in mind. It is seen as a process by which a series of well thought out and carefully executed activities enable one to enquire into, investigate or examine a problem in order to discover new facts when dealing with it. Hart (2005) suggests that research is work carried out to contribute in some way to our understanding of the world, thereby increasing knowledge.

Saunders et al. (2007) state that the systematic process indicates that research is based on rational interaction and not just belief, involving explanation of the methods used to collect data, arguments to show the importance of the results and any limitations of the study. To discover things, on the other hand, suggests that there are many possible reasons for the research, which may include describing, explaining, understanding, criticising and analysing (Ghauri and Gronhaug, 2005). Research is concerned about 'What', 'Why' and 'How' questions. Therefore, in following the research process, the above questions need to be asked to know where we are and where we want to be.

4.2.1 Business research

Business research is therefore concerned with a systematic study to analyse and examine business and management. According to Easterby-Smith et al. (2002), three things make business and management research distinct from other forms:

- The way in which managers and researchers draw on knowledge developed by other disciplines.
- The fact that managers tend to be influential people and their time is money.
- The requirement for the research to have some practical consequences.

This therefore makes research a bridge between the worlds of theory and practice, increasing the store of an organisation's knowledge. It can therefore be seen as synthesising research conducted in academia, industry and knowledge developed to guarantee survival and the common good at various levels of society. This process of research is, however, affected by beliefs and feelings at any point in time.

4.3 Philosophy

Humans have always sought to improve on their conditions. In this vein, the search for and development of knowledge have and will remain a cornerstone for the advancement of humankind vis-à-vis its environment, seeking to better explain issues, dynamic circumstances and effects on society. Research philosophy adopted at any point in time will be influenced by individual visions, which in turn are influenced by values and beliefs or general assumptions of how the world should be. As argued by Saunders et al, this also influences views on the relationship between knowledge and the processes by which it is developed. From this, many schools of thought have proposed views on how to understand the world, with each providing arguments and counter arguments for what constitutes knowledge.

These schools of thoughts have created, challenged and recreated many thought systems. From rational schools of thought to more subjective thought systems, there has been constant discourse and different interpretations of what constitutes the world. Ideas such as the importance of rhetoric have been used to build on knowledge. While this has formed the basis for the creation of knowledge and understanding of the world, other schools have concentrated more on human behaviour and how it affects others on the grounds of ethics and morality. In light of this, and in an attempt to dispense with the subjectivity aspect, Aristotle proposes a more logical way of looking at the world and forming an understanding of it through a questioning style. Even then, such approaches have often been invalidated and the arguments persist.

The rational stance is that our mind constitutes the external world, as knowledge is seen as an awareness of something. The empiricist (relying on the five senses), on the other hand, takes the view that the external world conditions the mind. These two aspects therefore need synthesis before truth can be established. Therefore, in developing consciousness, we follow a sequence of sensations, perception and conceptualisation, bringing into existence what does not exist, but which can be perceived. Differentials will form the first step, followed by integration and finally a synthesis to form new thoughts, precepts, concepts, knowledge and culture, where existence becomes the foundation for all knowledge. In this argument, the unconscious state is considered subjective, comprising embedded values and assumptions, which will need to be brought in front of the court of reason to be refined (Hammersley, 2000) using prescribed methodologies. In this light, we may need a step backwards to modernism before we will be able to leap into the future. However, Jackson and Carter (2000) argue that there is no aspect of organisational behaviour that is not based on subjective values, norms and preferences.

4.3.1 The question

What therefore qualifies as knowledge and how does one obtain it? In trying to determine the truth, it is necessary to remove all boundaries so that creativity may abound. The inevitable questions are why we do research and what we intend to achieve. The search for knowledge is a driving force behind research work (Denscombe, 2008). In trying to make sense of the world around us, we are compelled to investigate, enquire and be inquisitive. The influences philosophers have had in shaping the world over the last 3000 years are undeniable. From the Sophist strategy of discourse and rhetoric to the Aristotelian style of reasoning, many investigations today find themselves caught somewhere in-between. It is the search for a purpose. Questions have led to the selling of ideas by groups and individuals, creating entrepreneurs and shaping the values of nations, especially in religious circles, on what constitutes existence, which still influences our thinking. Whilst these questions remain unanswered, a continuous process of critical thinking and idea

generation is necessary for human advancement. The age of enlightenment broke down structures in such a way that individuals can have the confidence to shape own destinies, approached through various methodologies.

4.3.2 Self reflection

Therefore, in considering these issues, the researcher has considered his own situation and reasons for engaging in this field. The motivation therefore comes from the self, in the spirit of a personal journey (Denscombe, 2008). Drawing from this, it is vital that a challenge to what has come before is interpreted in a particular context and time. Research can therefore be said to be a constant re-thinking, re-examining or just questioning of the status quo. In a more rational way, the process is seen as a systematic way of asking questions using scientific methodologies. This will involve the gathering of information from data to understand relationships, using the information to identify corresponding patterns (knowledge based techniques) to form a theory which is the inter-relationship between two or more variables (Saunders et al., 2007). This helps the researcher to establish a principle which can be applied in life situations. Many authors have argued against a total rational way, proposing other means of looking at relationships based on the various philosophical schools of thoughts, especially in the social sciences. Saunders et al. (2007) therefore conclude that a research philosophy will depend on subjective knowledge development and propose two ways of approaching it: positivism and interpretivism.

4.3.3 Positivist approach

This thought system is based on the premise that truth is objective and can be known through scientific verification. Concepts have been developed to explain the cause-effect relationship in a given setting. Due to the fallibility of humans, personal opinions or conclusions are not necessarily right and therefore sense must be made out of any circumstance. Jankowics (2005) portrays positivism as being realist and suggests that people need to be sceptical of belief or opinion. He goes further to suggest that truth exists independently of the people who seek it and can be found through logical deductions or through the collection of data, which results in facts. However, what is fact today is not necessarily fact tomorrow or in another context (Nachmias and Nachmias, 1996). Data collected must have a relationship for it to be information. It also depends on the consumers of the information to judge whether there is actually a relationship, which entails making sense out of the relationships. For facts to be gathered from the information, therefore, a pattern must develop which needs to be tested for reliability in different contexts. Other determinants, in most cases subject to the intrinsic behaviour of the living world in social sciences, lend themselves to multiple interpretations. These will include feelings, emotions and intuition, which do not count as evidence in the positivist approach.

In this respect, the search for the underlying determinants which can be accurately measured has introduced the concept of logic, which asks the 'why' question in a systematic way until the questioner has satisfied his own quest, although his own satisfaction is totally based on needs and desires at a specific point in time and the institutional factors. Individuals interpret the world and adapt to it differently due to varied belief systems (Mintchik and Farmer, 2008; Denscombe, 2008). So even though the 'why' approach portrays a scientific methodology in making sense to others, the softer elements of belief and emotions, for example, still have an effect in the whole process and therefore positivism cannot be seen as a pure science.

Saunders et al., (2007) talk of positivism as a method in which the researcher assumes the role of an independent, objective analyst operating with apparent social reality. In this case, the work is highly structured and methodological in order to reflect a scientific nature (Gill and Johnson, 2010) which can be replicated in future work. Although structure has always been a factor in every society, the enlightenment age is widely credited with the growth of the positivist school of thought, when a change in paradigm led to the development of science as a way of furthering knowledge and understanding the world and its effect businesses. Drawing from this, logic is prescribed over tradition and myths (March and Olsen, 2009). Going back to the independent researcher, independence is only a concept, and every action of the researcher will have been conditioned by preconceived ideas influenced by culture (Hofstede, 2001). Denscombe (2008, p300) suggests that

‘...the researcher’s identity, values and beliefs cannot be entirely eliminated from the process of analyzing data.’

This application of a particular logic or scientific methodology in the social sciences as the only method in research has been critiqued by some (e.g. Jankowics, 2005), as businesses are made up of a complex reality of individuals whose behaviour and actions cannot simply be measured as a programmed object. As opposed to other factors of production, the human factor is the only one that is capable of changing and impacting on the others so as to continuously improve on efficiency and effectiveness and thereby producing wealth and advancing society. The incorporation of other methods or strategies which seek to look deeper and vindicate the limitations of using a particular strategy is now inevitable, ushering in the interpretivist school of thought.

4.3.4 Interpretivism

Truth is subjective and the world can hardly be known. With the complex and dynamic nature of attitudes and behaviours portrayed by humans, as opposed to scientific inventions and natural sciences, Remenyi et al. (1998) argue that consideration of the complexity of people will enhance details of the circumstances in order to appreciate the reality governing human actions and therefore put one in a position to answer the 'why' question. In this regard, Saunders et al further argue that the understanding of the subjective behaviours motivating individuals should be contextualised, as different interpretations can be achieved using a system of social constructionism. Interpretations by individuals affect actions and the nature of social relations in any setting, thereby leading to the construction of a new way of doing things. It is, however, argued that this is a difficult approach to adopt, as it will need the researcher's proficiency in negotiating with and convincing individuals to participate in any study.

In using this approach, feasibility is important, as it can be difficult to access different paradigms. This therefore demands a selling of ideas to others in such a way that co-operation can be achieved ethically. Jankowics (2005) suggests that when feasibility is gained and studies begin, values and weights should be put on intrinsic variables in order to gain more understanding in social sciences. He goes further to advocate a system of considering shared understanding by researchers and theorists in different contexts so as to add value, taking us back to a positivist approach. Each assumption will need to be understood by the researcher as he puts on a new cloak. In gaining support and making sense of interpretations, rhetoric, debates or discourse are necessary, in which each researcher has to convince his peers about his understanding of a particular subject, although any consensus reached may not be unbiased. The concept of common sense becomes a critical success factor in these circumstances. Continuous revision and critical analysis is

necessary to move forward, in this case following a more or less double loop approach of learning (Argyris and Schon, 1978).

4.4 Approaches

The above discussion therefore leads to the main approaches in deductive and inductive which depend on the relationship between variables and the extent to which the researcher is clear about what is put forward in the research design of a project.

4.4.1 Deductive approach

This approach involves the development and rigorous testing of a theory (Saunders et al., 2007). Hussey and Hussey (1997, p52) describe it as

“...dominant in natural sciences where laws provide the basis of explanations, permit the anticipation of phenomena, predict their occurrence and allow them to be controlled.”

This is argued to be more akin to the positivist philosophical method with a structured methodology. However, these laws or generalisations, although effective in many circumstances in furthering knowledge, are also the creation of subjective humans (Nachmias and Nachmias, 1996) and are subject to their own interpretations of reality, which are highly influenced by the social networks and culture in a given context. A deductive approach could work for a time, but facts today may not be facts tomorrow or in another aspect.

With all its shortcomings, the deductive approach, with allowances for continuous adaptation, is, however, seen as very useful in the search for knowledge.

This approach, while mechanistic, must always be open to change in different contexts. Constant questioning is required to disprove and improve understanding. Being too rigid may skew results in order to accommodate a particular view, which may have repercussions in relation to the shaping of contemporary thinking. However, this approach is widely credited for its generalisation aspect, when done properly and applied in like to like circumstances.

4.4.2 Inductive approach

With this approach, a theory is only brought to light when data has been collected and analysed to generate a pattern of events concerning two or more variables. It builds on a concept and considers a bottom up approach, where time becomes an important factor to consider and manage. It can therefore be argued that it follows a cause-effect continuum with the human factor prevalent, and is progressive, in contrast to the deductive approach. The theory formulated at the end is specific to a particular study and is hard to replicate. However, assumptions, beliefs and various rationales cannot be relied on. These are influenced by culture, which is seen here as the way the mind of one person shapes a society. However, positing that it follows a cause-effect rule might be dangerous for interpretations, as humans are irrational beings.

4.4.3 Mixed approach

With the advantages and disadvantages of inductive and deductive approaches, a mixed method research is becoming prevalent in management research. Here, the researcher collects both qualitative and quantitative data in one study and integrates it at some stage of the research process (Holcomb et al., 2009). In proposing a particular way of going about research, Saunders et al argue that in a complex world with dynamic circumstances, no one type is superior to the other and it is advisable to have a mixture of approaches depending on the context and nature of a particular study, especially in business. A mixed approach provides a rich insight into owner-

managers thinking through face to face dialogue and strives to give a narration based on quantitative data collected. In this way, one can overcome the disadvantages of using each method individually. Data collection in mixed methods includes interviews, questionnaires, surveys, validated tests and scales, and observation.

4.5 Research strategy

This is a plan of action required to answer the research question in a reliable way with relevant information for an audience. It will therefore require the researcher to visualise where he wants to be as opposed to where he is at the moment. Clear objectives and specific sources of data collection will need to be set, and constraints such as access to data, time, money and ethical issues will have to be taken into consideration so as to manoeuvre any difficulties during the research work itself. The overall strategy will therefore need to be broken down into manageable tasks for the building of the research to completion, which will include methods, details of data collection and analysis methods (questionnaires, interviews, published data etc).

4.5.1 Research methodology

A variety of methods, as discussed above, have been proposed for research, including positivism (deductive or quantitative), interpretivism (inductive or qualitative) and realism (Denscombe, 2008; Saunders et al., 2007). The choice of method depends on the type of research and the constraints attributed to it. Proposing a mix of positivism and interpretivism, Denscombe (2008, p108) suggests that the "...mixed research approach is problem driven."

Some advantages comprise of enhanced precision and a holistic view. This thesis has gathered information in many ways. Nachmias and Nachmias (1996) and other writers in research methods call this "triangulating". The researcher assumes the role of a participant observer working with observable social reality. The mixture of

methods supports a holistic view and in looking at subjective concepts, knowledge of qualitative methods will be necessary to tell a story behind the quantitative analysis. One method will overlap and a continuous review of methodology in the dynamics of entrepreneurship capital convertibility is warranted, with an eye on convertibility.

From the mixed method, a case study approach is adopted, which consider particular SMEs. Denscombe (2008, p35) states that case studies

“...focus on one (or just a few) instances of a particular phenomenon with a view to providing an in-depth account of events, relationships, experiences or processes occurring in that particular instance.”

In comparing the characteristics of the survey strategy to the case study strategy in table 4.1, as well as advantages and disadvantages in table 4.2 Denscombe (2008; pp7-46) lists the following differences:

Table 4.1: Characteristics of Survey and Case Based Strategies

Case Study Strategy	Survey Strategy
Depth of study	Breadth of study
The Particular	The General
Relationships/Processes	Outcomes and end-products
Holistic view	Isolated factors
Natural setting	Artificial situation
Multiple sources	One research method

Table 4.2 Case study advantages and disadvantages

Advantages	Disadvantages
Focuses on one or a few instances and allows the researcher to deal with the subtleties and intricacies of complex situations	Credibility of generalisation made from findings
Uses of variety of research methods to capture complex reality	Perceived as producing soft data – lack of a degree of rigour
Fosters the use of multiple sources of data - facilitates validation of data through triangulation	Difficulties in boundary definition, which can complicate decisions on the source of data to incorporate
No pressure to impose controls or to change circumstances	Negotiating access to the case study
Fits in well with needs of small scale research through concentrating effort on one research site	Observer effect can have an effect on findings
Suitable for both theory building and testing	

Case study analysis may be carried out on the assumption that each case is unique; this is consistent with one interpretation of social constructionism, or with the view that case analysis can be used to test theoretical propositions (Yin, 1994).

4.5.2 Data processing and analysis

Data analysis should involve a description of the techniques used, and the extent and degree to which the findings confirm or inform relationships. Data analysis means to organise, provide structure and elicit meaning. This is done to search for underlying aspects in a research study and will follow the process of data arrangement to provide useful and timely information, the discovery of patterns and to finally arrive at a general principle (Denscombe, 2008). Both quantitative and qualitative aspects will therefore need to be taken into consideration.

In practice, quantitative research will involve the measurement of issues that can be translated into data for analysis through statistical tools and the reporting of an output. Qualitative research deals with transforming information from observations and reports, and recording the data in the form of written words. A questionnaire, however, can serve both styles, with the production of numbers and words respectively.

4.6 The case for regional study

Regions differ in regard to their competitive advantages and earlier studies provide information about clusters of rival companies within a local industry. Svensson (2010) provides an example of textile manufacturing in Manchester, where clusters emerged due to the advantages of vertical and horizontal co-location, enabling suppliers and manufacturers to reduce transaction and coordination costs; competing firms to share the same labour pool and other resources; and customers to know where to go when they want to buy what the industry produces. Saxenian (1994) discusses industrial districts in an analysis of the hi-tech region of Silicon Valley and found that the firms involved cooperated, as well as competed, with each other. Sparrow and Patel (2006) also studied SMEs in the West Midlands region of the UK with promising results to justify the case for studying entrepreneurial capital convertibility dynamics on a regional basis.

4.7 The holistic approach

Many researchers on entrepreneurship capital have used narrative in a qualitative nature, with room for subjective judgements. With the individual as the starting point, such studies may take on a more psychological approach in their focus on analysis. Quantitative surveys are used to capture relationships through structured questionnaires involving individual, social and economic measures for analysis. With these, however, a narrative is necessary to tell a story behind every measure so as to have an improved understanding of the complex and interrelated processes of

entrepreneurial capital. It should also be noted that this will form a base for a longitudinal study, which will have the capacity to consider changes in practices and other variables over time and allow for more thorough investigation to confirm or modify and replicate any developed model. It is anticipated that this kind of research will help increase the understanding of the complexities of entrepreneurial capital and its effect on economic development in a very dynamic economy.

4.7.1 Deciding on an approach

The approach chosen should enable the researcher to adapt his research design in order to take into consideration any constraints. It will also let the researcher reflect on the research process and make an informed decision about the design (Easterby-Smith et al., 2002). Saunders et al. (2007) suggest that a subject from which one can describe academic propositions lends itself to the deductive approach and a topic that is new or with little literature will readily lend itself to the inductive approach. Preparation for selecting a method will therefore require the drawing up of a plan of action. The variables used in this research are based on literature pertaining to entrepreneurial capital convertibility in small businesses. Researchers in this area have predominantly used qualitative methods such as interviews (Lam and Shaw 2007; Stringfellow and Shaw, 2009). Given the literature and the quantitative studies already carried out in the area of entrepreneurial capital (Firkin 2001; Lam and Shaw 2007; Stringfellow and Shaw 2009; Shaw et al., 2008), a suitable method is necessary. Firkin (2001) used a case study approach to compare and contrast measures of entrepreneurial capital convertibility, considering their overlapping nature in a study in New Zealand. Shaw et al. (2008) built on theories of entrepreneurial capital to develop a vigorous structure within which to consider longitudinal studies. de-Bruin (2006) adopted an iterative survey format (with six owner-managers) influenced by phenomenal, reflexivity and feminist schools of thought. Martin and Hartley (2006) used a qualitative case study approach on 20 SMEs in intangible studies using the strategy map located on a conceptual framework developed from literature reviews. Considering the above studies, a

mixed approach was selected, in which the positivist school of thought overrides and is supported by social constructivism through case study.

With the nature of the study, the survey method (Firkin, 2001) in a more interactive style was chosen to collect the data and to test the propositions. Once the method was established, it was essential to choose from the available survey alternatives: face to face interviews, telephone interviews or mail surveys (Descombe, 2008). Malina and Selto (2004) used the balance scorecard as a good example of a mixed method, with a combination of non-financial and financial and leading and lagging factors. They suggest that this method provides synergies than either method individually. According to them, a combined method enables the exploration of more complex aspects, as concepts can be vague. The above reflections suggest that a mix of quantitative and qualitative methods is useful in gaining new empirical insights, because as quantitative methods need valid conceptual grounding, qualitative methods are useful in understanding social phenomena. A major advantage of a mixed method research design is that during the project a researcher can return to the qualitative data and reread quotes in the context of the larger document.

4.7.1.1 Preliminary research methods

The preliminary research in this study involves general literature searches and reviews, interviews and observation. The objective of the literature search and review is concerned with identifying the contextual and conceptual issues for empirical investigation. Data units include articles following a sequence where concepts and key words are defined and differentiated, with relationships made between new concepts and a synthesis drawn to form a new framework from existing theories. Considering Cooper's (1988) taxonomy, the focus is on the outcome, which is firm performance and growth. We gained an initial overview of what was known about the chosen topic from generic literature relevant to

entrepreneurial capital and from previously conducted and peer reviewed journal articles focusing on the owner-manager or management team. A critical review which demonstrates some attentiveness of the present situation of knowledge on the subject, its restrictions, and how the proposed research aims to add to what is known is carried out for all relevant material (Gill and Johnson, 2010).

Additional exploratory research methods included attendance at seminars and conferences in the area; for example, the British Academy of Management conference (Aston University), which provided an opportunity to network with the main researchers/authors in the relevant fields. Early presentation of work allowed for peer review and constructive feedback. Apart from reviewing literature in the main domains, literature on methodology, conceptual models and frameworks from entrepreneurial capital and performance were also reviewed. The purpose of this was to formulate a model that would summarise all the relevant constructs for investigation, with room for replication.

Framework building could be said to follow the following approach:

- Distinguishing search key words into a series of concepts.
- Thinking of alternative terms for each concept from its definition.
- Searching each concept separately.
- Breaking down concepts.
- Finding new relationships and operationalising them.
- Combining new relationships to form new concepts.

4.7.2 Conducting the pilot

The aim of the pilot was to test all the processes that would be used in the survey and assess its length and terminology; to test that the correct respondents were being targeted; and to identify the records used to complete the questionnaire. Following on from the aims and objectives in the literature review, a pilot study was conducted which considered owner-managers of SMEs. The first step was to

consider if the questionnaire had a strong content validity. Content validity, is established by asking a specialist in the field to consider whether, in their judgment, a particular query is measuring what the researcher is interested in (Blunch, 2008). A prepared questionnaire (on a 6 point Likert scale) on capital convertibility was also screened by some academics, who provided ideas on how the questionnaire could be better designed. Some of the main amendments included revision of the introduction to better identify 'who you are', 'why the work is being performed' and 'why the target has been invited to participate'; a brief introduction to explain 'why you are asking personal information'; making explicit that these questions are optional; a reduction in length; and omission of the definitions of the main variables, as they could be confusing to whoever was answering the questions. It was also advised that it could be necessary to have some open ended questions for additional information from respondents. The pilot was administered to some owner-managers and appropriate revisions made from the feedback. Further follow-up interviews were conducted to explore the issues that arose from the design and additional comments made by academics. Hair et al. (2006) suggest that when measures are developed for a study, a pilot should be performed on respondents similar to those from the population to be studied so as to screen for appropriateness. It is particularly important when scales are applied in specific contexts or in contexts outside their normal use.

4.7.3 Administering the questionnaire

The population for this feasibility study was chosen appropriately. Emails and phone calls were made to those selected to participate in the studies (five start up business owners accepted to participate). Appointments were arranged with some; others preferred to receive the questionnaire by email, with a form on how it was to be answered accompanying it. The businesses were mainly those from the retail and services sector. The researcher then had a one to one session, which resembled more an interview, in order to clarify what was being asked. This therefore

highlighted the need for simplification. The responses showed that most businesses were not prepared for major changes but showed interest in how this could be achieved, especially concerning the question on building networks for business growth. Further discussion was carried out on the respondent's thoughts while answering the questions and whether there was room for improvement. The questions included:

How long did it take to complete?

Were the instructions clear?

Was the layout clear?

Did any of the questions generate response bias?

The above questions helped in restructuring the questionnaire for simplicity. The main findings of the pilot showed positive results over the length of the survey; it took (on average) approximately 30 minutes to complete the pilot questionnaire per owner-manager and almost all the respondents felt that they were the right person to complete the survey.

4.8 The main study

4.8.1 Sampling

The main study targeted 17 SMEs in the West Midlands region of the United Kingdom (UK). From the 17 SMEs surveyed, responses from 8 SMEs were utilised for this study and an in-depth study carried out on them. The SMEs selected were felt to constitute a useful cross section for generalisation. These included four businesses from manufacturing and four from business services and seen as representative of the population.

4.8.2 Rationale for use of questionnaires

The study was based on questionnaires as the method in collecting data. Questionnaires as a form of research method can be grouped according to their purpose, size or appearance. Denscombe (2008) articulates that to qualify as a research questionnaire, three things must be fulfilled via;

- Be designed to collect information which can be used subsequently as data for analysis
- Consist of a written list of questions
- Gather information by asking people directly about the points covered in the research

(p153)

The initial questions used were those previously used by the knowledge management team of Birmingham City University Business School on KM projects in SMEs (Sparrow, 2001). These tested the knowledge of owner-managers and their thinking in strategic and design terms to assess key variables. Fairchild (2002) notes that the realistic objectives of measuring KM are to find out how well a business has

converted capital from one form to another (e.g. individual learning to organisational knowledge) and reduced the danger of losing precious knowledge if people leave the organisation. In line with these and the postulation by Rompho (2011) on using balance scorecard as a metrics for measuring knowledge management in SMEs, further indices were developed on convertibility (see appendix F) and extended the questionnaires to apply directly to entrepreneurial capital convertibility. Questionnaires were carried in a face to face interactive way out seeking established assessment of key variables which fell under the respective headings of knowledge management audit (appendix C), strategic thinking (appendix E) and design thinking (appendix D). These formed the basis for the positivist element of the work. It was however enhanced with qualitative discussion through interviews with the participants with relevant questions which were carried out on a face- to face basis, taped and transcribed.

4.8.3 Knowledge management audit tool

The main study included a knowledge management audit and sought to understand KM practices in SMEs based on quantitative measures. It was, however, conducted in an iterative format to obtain qualitative and quantitative data during the process. Qualitative research can access many of the dynamics of developments within particular SME contexts. The questions explored four aspects of KM: knowledge in use, systems, renewal and knowledge economy management capability (Sparrow, 2001), using 6 point rating scales.

Administration of the KM audit tool was used in the current study to determine which of the four different approaches towards adaptation the businesses were adopting. Variables were measured against industry averages using a 6 point Likert scale and divided into four main areas: knowledge in use, knowledge systems, knowledge renewal and knowledge economy management capability. The sections, as shown in appendix C, were divided into

1. Knowledge in use (what it is, where it comes from and its value to the company), corresponding to cultural capital. This included measures on

What is it?

Where does it come from?

Do you know its value?

2. Knowledge systems (effectiveness and efficiency, identification of knowledge sources and embedding of knowledge into systems), corresponding to human capital. This included measures on

How efficiently and effectively can people access the knowledge that they need?

Is it all in the heads of individuals?

Have you embedded knowledge in your systems and procedures effectively?

3. Knowledge renewal (knowledge sources and future knowledge acquisition), corresponding to social capital.

Where has the knowledge come from that has got you ahead?

Will the knowledge you need in the future be acquired effectively?

4. Knowledge economy management capability concentrating on change management, corresponding to performance.

Which of the changes you might need to make will be the most difficult?

Can you manage the changes?

Knowledge renewal and organisational learning are considered in high terms, as well as the ability of the business to manage the developments needed to enhance KM practices. Sparrow (2001) suggests that a key finding in earlier research on SMEs using this tool is the evidence for a linkage between the knowledge skills and attitudes of owner-managers and their management teams in SME development success. Business support services are often segmented on the basis of these

characteristics. He suggests that the tool should include assessments of businesses to manage KM development.

The responses to the questionnaire were given by the owner-managers of the SMEs. Interviews were held with owner-managers about ownership and aspirations, alongside completion of the audit. Any ambiguity in the questions was addressed by the researcher. Additional discussion was often held on any issue beyond the sample to obtain a rating scale response from the owner-manager. The survey produced a comprehensive report after being inputted into the online tool of the Management and Enterprise Development Centre on areas that need improvement for each case study. The study showed that it is possible to assign a business to one of four approaches towards adaptation of the knowledge economy (i.e. reactive, technology adopters, strategy and leadership oriented and learning and co-production oriented), as shown in the KMC work. Using convertibility in the process, given scores on entrepreneurial capital convertibility were scores of up to 25 per cent are for reactive SMEs; those greater than 26 per cent and up to 49 per cent are for technology adopter, those between 50 and 75 per cent are for strategy and leadership oriented and those above 75 per cent are for learning and co-production.

Reactive businesses reported having made little or no attempt to manage knowledge. They undertake very little analysis of their knowledge practices and did not consider themselves to be positioned to respond to knowledge challenges. Strategy and leadership practice-oriented businesses usually suggest taking concerted and comprehensive approaches towards managing knowledge. They have undertaken more analysis and feel they have the appropriate capabilities to deal with knowledge challenges.

Technology-oriented businesses appear to have recognised the challenge of the knowledge economy and have the capability to dedicate energy and resources to measure, resource and acculturate KM development. They feel that they appreciate the value of particular aspects of their knowledge and emphasise the ongoing evaluation of practices, feeling that they can understand the key aspects of personal

understanding and experiences that constitute their expertise. They have captured some aspects of knowledge in knowledge systems with effective access and efficiency for some areas of their operations.

Learning and co-production-oriented businesses have considered the role of creative thinking in their business to a greater extent than businesses in any of the other clusters and place significantly less emphasis upon analysis of personal understanding and experience. They appreciate the knowledge they have and need, but place less emphasis on assessing the value of their knowledge. They engage in learning from partners/alliances, networks and trade bodies significantly more than other clusters and place more emphasis on best practice networks and communities of practice than knowledge ownership-oriented businesses. They report higher use of business planning, and feel able to secure business benefits from their knowledge deliberations but engage less in business measurement than others. They have considered knowledge within their operational management, and, notably, uncertainty management (flexibility) deliberations rather than strategic management.

4.8.4 Questions on the intervening period

Design thinking of businesses was also tested on a Likert scale of negative 3 to positive 3, coded as 0 – 5. The variables for this section were: Experimenting, Reflecting, Organising and Sensitivity. Questions were asked in an interview format, with clarifications being made to respondents. This measured whether owner-managers were thinking in a ‘designer’ way for the period from 2007 onwards. The question asked with various options for owner-managers as detailed in appendix D on the internal perspective was as follows:

The approach that the business has taken over the intervening period could be described as:

For the external perspective, the question asked was:

The business's approach in the above regards has been determined by:

Trend analysis with SPSS and Excel was carried out on the results, using percentages to suggest the stage of convertibility the businesses were at (reactive, technology, strategy or learning) in conjunction with the conceptual model.

4.8.5 Change over time

Another tool was prepared to consider convertibility using a holistic view of the strategy map and measured trends over time, from 2001-2007 and 2007 onwards. Using 2001 as the base year, owner-managers were asked to give a figure of improvement over time in the main aspects of the strategy, which included the financial, customer, internal and learning/growth perspectives. Detailed measures based on the literature review followed aspects on the strategy map in linkage to intellectual capital as detailed in appendix D.

4.8.6 Interviews

Each of the owner-managers was interviewed face to face about the management matters outlined above, addressing the issues detailed earlier. The interviews lasted between 1hr 30mins and 2 hours. They were conducted between May and September 2012, recorded and transcribed. Analysis of the interviews was conducted in terms of the interview structure with the identification and analysis of meaning in the context of the key words. The interview was divided into two parts:

A. *We think that the job of management itself may be changing*, with six questions, and

B. *Given the above changes, managers will need to adapt*, with four questions. (see appendix F)

The process is represented in Figure 4.1 below

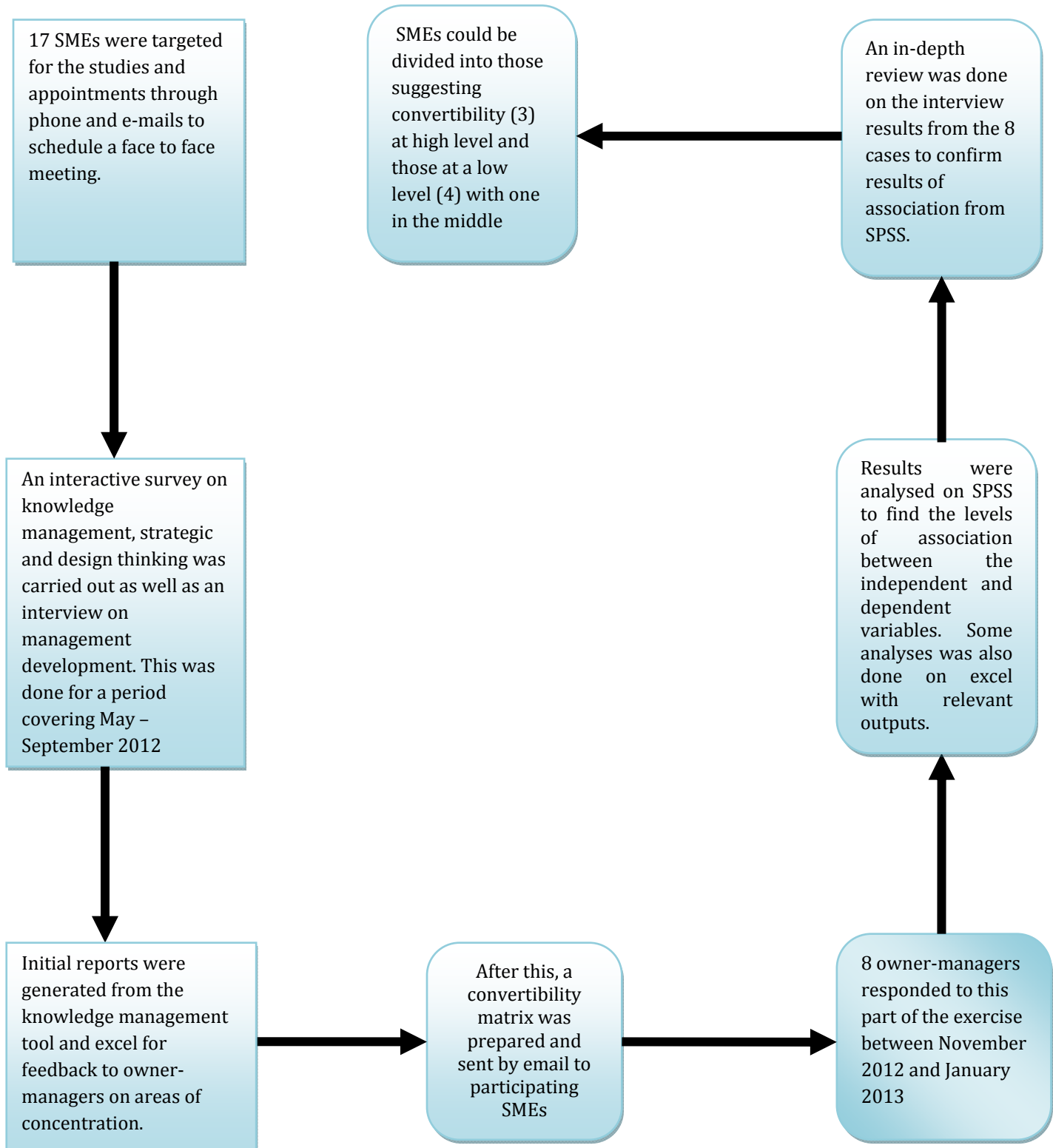


Figure 4.1: The research process

The study sought to gather data for analysis based on the extant literature and concepts studied as shown in figure 4.1 above. Seventeen owner-managers of SMEs were selected and appointments initiated for the study. A face to face interactive session between May and September 2012 was carried which considered the thinking and experiences of owner-managers based on their knowledge processes, strategic and design thinking. This was done in an interactive way to gain knowledge of any experiences that might have aided in the convertibility process. An interview was also carried out and recorded. These sessions lasted between 1 hour 30 minutes and 2 hours. The results from the survey were analysed using the knowledge management tool from Birmingham City University and Microsoft excel for strategic and design thinking to provide an initial feedback to participating businesses and also to find out what stages of knowledge management development (reactive, technology, strategic leadership or learning and co-production) these businesses fall into. A further matrix was developed on convertibility and sent by email between November 2012 and January 2013. Only eight of the initial seventeen businesses responded and it was therefore necessary to carry out an in-depth case study on the SMEs that responded. Quantitative results were analysed using Spearman's correlation coefficient on SPSS to find out associations between independent variables (knowledge management, strategic and design thinking) and the dependent variables (convertibility matrix).

Within a grounded approach, textual responses were interpreted and analysed accordingly to support the SPSS output data. A similar approach was taken by Sparrow and Patel (2006) using variables on the balance scorecard in regional SMEs. Malina and Selto (2004) also used archival and qualitative data to measure cause-effect relationships in the BSC. The results showed that three of these SMEs could be classed as businesses suggesting convertibility at a high level, four as suggesting convertibility at a low level with one in the middle.

4.8.7 Convertibility

The convertibility questions were sent later to participants so as to find a link in the indices recorded and their present thinking. Ten measures were selected on convertibility for various aspects and a further matrix was developed and sent by email to the owner-managers to provide a measure of convertibility on a 6 level scale (Not at all = 0, Nominal = 1, Low = 2, Moderate = 3, Considerable = 4, Very Substantial = 5) to indicate to what extent in the past two years they had made any conversions to the ten listed items as detailed in appendix G

4.9 Modelling - Determinants of Convertibility

The variables are derived from the strategy map relating to a variety of convertibility-related activities that firms may or may not have engaged in and owner-managers' knowledge and experience. An independent-samples t test is used to appraise that the average of a sole variable for subjects in one group is statistically different from that in another group (Curwin and Slater, 2007). This is done by comparing the difference between the two averages with the standard error of the divergence in the averages of different samples (Denscombe, 2008, pp268-270).

4.9.1 Propositions

Drawing from the conceptual framework and the suggestions that entrepreneurial capital convertibility will be influenced by the owner-manager's personality, experience, his understanding of knowledge, knowledge of systems, learning and the general economic situation, strategic and design thinking, propositions sought to identify the variables that aid in convertibility.

4.9.2 Data Analysis

The data on convertibility, knowledge management, design thinking and strategic thinking were analysed using a two test Spearman correlation on SPSS to find the association between convertibility and the independent variables and recommend solutions for converting intangibles to tangibles and vice versa. A second form of analysis ranked the businesses using independent t tests into those with high convertibility and those with a lower level of convertibility. A case study was then carried out on the significantly different businesses (three with high convertibility and four with low convertibility) in more depth, exploring the reasons for the differences.

The KMC provided a comprehensive report, which was used in conjunction with the interview data for analysis with relevant quotes and analysis of keywords. Strategy map data were analysed using a horizontal trend analysis on Excel to discover trends in relation to the approach to knowledge development that the businesses were adopting (reactive, technology, strategy or learning approaches). This then informed a clustering of SMEs into the various groups for more analysis on convertibility.

4.9.3 Verification, Validity and Reliability

Silverman (2000) suggests that reliability is necessary for all research. The researcher will try to demonstrate this credibility by maintaining high quality, laying aside any preconceived ideas about the phenomenon under consideration and presenting a true reflection of the data obtained from the sample. Lincoln and Guba (1985) agree that reliability involves validity, objectivity, dependability, and transferability.

4.9.4 Objectivity

The researcher will attempt to conduct an impartial investigation. Prejudice will be diffused as much as possible. Nachmias and Nachmias (1996, p76) argue that

“...researchers are constantly interacting with a complex and demanding socio-political environment that influences their research both formally and informally.”

4.9.5 Ethical considerations

Following on from the discussion of reliability, validity and objectivity, the researcher is tasked with ensuring that confidentiality is maintained for all sensitive information and is only disseminated on a ‘need to know’ basis. The ethical guidelines outlined in the Research Ethical Framework were adhered to, covering issues related to the researcher, participants and sponsoring bodies. The initial contact letter specifies the nature of the research project and explains the usage of the data provided, as well as confidentiality.

Any relationship with participants was disclosed and conflict of interest issues minimised. Data required for the study consisted of the attitudes, knowledge and experiences of owner-managers of SMEs. The researcher is fully aware of the issues under investigation, as they are strategic and critical for the participants under study. As already stated, information was disseminated only on a need to know basis and disclosure made for any departures.

4.9.6 Conclusion

This chapter has set out the research objectives and questions for this study by revealing its philosophical standpoint. The study adopts a mixed methodology. This is deemed appropriate to test the model and any propositions developed and to tell a

story behind the data. It goes on to consider the process for data analysis and the ethical issues in social sciences which have an impact on research.

The next chapter presents the qualitative and quantitative findings of the study by ranking the SMEs into those suggesting convertibility at high and low levels respectively. Using an in-depth case study, it analyses the qualitative data in corroboration with the statistical data for synthesis.

CHAPTER 5: PRESENTATION OF RESULTS AND ANALYSES

5.0 Introduction

This chapter sets out to present the results from the quantitative analyses made on the questionnaires on knowledge management (appendix C) strategic thinking (appendix E) and design thinking (appendix D) with convertibility (appendix G).

Variables from these aspects were coded, for KM survey (A1, A2...M10), for strategic thinking, design thinking and convertibility, inputted into the SPSS software with appropriate labels and values fully accorded to each. The sectors and SMEs sectors were also given values with Service = 1 and Manufacturing = 2 and SMEs numbered from 1 - 8. The variables were then described in details to take cognisance of six level likert scale measurement with values (from 0 – 5) where 0 = not at all, 1 = nominal, 2 = low, 3 = moderate, 4 = considerable, 5 = very substantial; assigned to each (evident in Sparrow 2001; Sparrow and Patel 2006). Data from the convertibility matrix was also entered into the system following same procedure. Most of the data was ordinal data. Once the input was ready, analyses began by choosing the correlation and selecting bivariate data. A two tail spearman test, which measures the association between the independent and dependent variables was chosen from where variables from the convertibility matrix serve as the dependent variable and run against those for knowledge management (e.g how can use of the internet help in converting knowledge to revenue), strategic thinking (e.g. how can relationships help in converting innovative processes to revenue) and design thinking (e.g. how can experimentation help in converting efficient processes to innovative products) respectively. Such an SPSS test uses a non-parametric Spearman rank correlation (r) to test the relationships between variables on the knowledge management, strategic thinking and design indices to measure the degree of association between two ranked variables with ordinal data for convertibility. Values of r can range from -1.0 to $+1.0$, where values near 1.0 indicate a strong positive association between the rankings, and values near -1.0 indicate a strong negative

association between them. It may be necessary to use sample results to make an inference about the population rank correlation r . Sample sizes, mean and standard deviations pertaining to the variables (dependent and independent) are presented in Appendix H.

In order to explore the results, it will be useful to commence with an introduction to the organisations under study. They all meet the definition of SMEs. (see Appendix L for the business background).

It will be noted that the organisations vary quite markedly in their make-up and sector of operation and come from both the services and manufacturing sectors. After taking the scores on convertibility based on the questions asked *To what extent in the past two years have you made any conversion of resources?* using a matrix of ten items based on the integrative strategy map (appendix E), the eight participating SMEs fell into the reactive, technology and strategy/leadership groups. None fell into the learning group. The significant relationships and corresponding factors are showed in Appendix A.

5.1 Knowledge management

The study adopted a self-reflection approach in which owner-managers were allowed to assimilate and reflect on the questions. This was necessary so that they could build a mental model in relation to the business and merge it with their own past experiences for elicitation, as discussed by Nonaka et al. (2000), in internalisation and externalisation facilitated by socialisation between the researcher and the respondent aiding in the process of 'knowing what they know'.

The sections as in appendix C were divided into

1. Knowledge in use (what it is, where it comes from and its value to the company), corresponding to cultural capital.

2. Knowledge systems (effectiveness and efficiency, identification of knowledge sources and embedding of knowledge into systems), corresponding to human capital.
3. Knowledge renewal (knowledge sources and future knowledge acquisition), corresponding to social capital.
4. Knowledge economy management capability concentrating on change management, corresponding to performance.

When convertibility was regressed on knowledge management variables, it showed overall support for influencing the level of convertibility, evident by the use of the Spearman rank correlation. The main elements that contributed to this correlation were those with significant score levels, such as knowledge systems and learning sources. Some variables under knowledge in use showed correlations but none was significant enough. A result is deemed statistically significant if the association or correlation cannot be influenced by external variables and as such will not be expected to arise by chance. On knowledge systems, variables under features of knowledge showed significant correlation and variables under knowledge renewal also showed some significant levels. The significant results are presented in Appendix K and discussed below.

5.1.1 Knowledge in use

5.1.1.1 Kinds of knowledge

This section asks owner-managers to consider the extent to which different kinds of knowledge are in use within their SMEs. Specifically, have analyses been undertaken to identify the roles that aspects of knowledge play? For example, identifying the knowledge used in procedures and systems; developed workforce skills; the 'black arts' of the industry; the approach to work that the workforce has; and the personalities of the key individuals who drive and control the organisation. It

is important that an organisation knows the roles that each of these kinds of knowledge play. The main associations were on critical experiences and personal understanding.

5.1.1.1.1 Critical experience

Critical experience is negatively associated with the convertibility of revenue into functionality ($r = -0.723$; $p < 0.05$) and revenue into brands ($r = -0.717$; $p < 0.05$). This suggests that the deeper the level of identification of critical experiences that are essential or useful for effective performance, the lower the level of capital convertibility in SMEs (B2).

5.1.1.1.2 Personal understanding

Personal and technical understanding is negatively associated with the convertibility of revenue into innovation ($r = -0.750$; $p < 0.05$); revenue into knowledge ($r = -0.756$; $p < 0.05$); revenue into values ($r = -0.750$; $p < 0.05$); revenue into IT ($r = -0.775$; $p < 0.05$) and revenue into alignment ($r = -0.756$; $p < 0.05$). Personal and technical understanding is also negatively associated with the convertibility of efficiency into revenue ($r = -0.849$; $p < 0.01$); with the convertibility of efficiency into innovation ($r = -0.756$; $p < 0.05$); the convertibility of efficiency into values ($r = -0.775$; $p < 0.05$) and the convertibility of efficiency into IT ($r = -0.756$; $p < 0.05$). Personal and technical understanding is negatively associated with the convertibility of functionality into brands ($r = -0.756$; $p < 0.05$); functionality into innovation ($r = -0.750$; $p < 0.05$); functionality into values ($r = -0.750$; $p < 0.05$); and functionality into IT ($r = -0.756$; $p < 0.05$). Personal and technical understanding is also negatively associated with the convertibility of partnerships into brands ($r = -0.750$; $p < 0.05$); partnerships into innovation ($r = -0.756$; $p < 0.05$); and partnerships into knowledge ($r = -0.750$; $p < 0.05$).

Identification of personal/technical understanding requirements is not associated with capital convertibility. This suggests that the deeper the level of identification of personal/technical understanding requirements (acquired through education, experience and training) of key organisational processes, the lower the level of convertibility (see B1). This may also suggest that SMEs hardly take the time to identify these aspects in their human capital, or ascribe a value to it.

5.1.2 Knowledge systems

This section asks owner-managers to rate the features of systems in their organisation that enable knowledge to be stored and accessed in relation to industry standards, as detailed in Appendix C. Knowledge systems, comprehensiveness, accessibility and security showed significant correlations.

5.1.2.1 Comprehensiveness

Comprehensiveness is negatively associated with convertibility of revenue into efficiency ($r = -0.708$; $p < 0.05$) and revenue into partnerships ($r = -0.713$; $p < 0.05$). Comprehensiveness is also negatively associated with convertibility of efficiency into partnerships ($r = -0.713$; $p < 0.05$); efficiency into branding ($r = -0.708$; $p < 0.05$); efficiency into knowledge ($r = -0.708$; $p < 0.05$); and convertibility of efficiency into alignment ($r = -0.713$; $p < 0.05$). These suggest that no matter the level of knowledge coverage in SMEs, owner-managers will always strive to transform economic capital into social capital (partnerships, branding), human capital (knowledge) and cultural capital (alignment). Comprehensiveness is negatively associated with convertibility of functionality into revenue ($r = -0.708$; $p < 0.05$); functionality into efficiency ($r = -0.708$; $p < 0.05$); functionality into partnerships ($r = -0.708$; $p < 0.05$); and convertibility of functionality into alignment ($r = -0.708$; $p < 0.05$). It is also negatively associated with convertibility of partnerships into efficiency ($r = -0.708$; $p < 0.05$) and convertibility of partnerships into functionality ($r = -0.708$; $p < 0.05$). By the same

token, no matter the level of knowledge coverage, SMEs will still strive to transform social capital using product attributes into revenue by forging strategic partnerships or networks.

Overall, the results suggest a negative association between the comprehensiveness of knowledge systems and capital convertibility, suggesting that owner-managers will seek to convert capital notwithstanding the level knowledge system coverage (F1). They may also suggest that SMEs have a more incremental desire for a comprehensive knowledge system repository as they perceive a low market and technical uncertainty due to their informal nature with a focus on flexibility and a tacit nature of knowledge transfer.

5.1.2.2 Accessibility

Accessibility is negatively associated with convertibility of revenue into functionality ($r: -0.713; p < 0.05$) and revenue into brands ($r = -0.707; p < 0.05$). This suggests that no matter what the level of accessibility to knowledge bases is, owner-managers and SMEs will always strive to convert their capital in order to survive in a turbulent environment.

SMEs are mainly based on an informal transfer of knowledge, in terms of tacit knowledge being made explicit when needed. This therefore suggests that explicit systems such as centralised filing systems, databases and management information systems are still in early development (F2). If there is no comprehensiveness, it is logical to assume that there will be no access to a repository. It will therefore be difficult to access the tacit knowledge in people's heads due to the diversity and emotional make up of individuals at any point in time. To obtain this knowledge through socialisation or externalisation, SMEs will need to attach symbolic capital by properly valuing staff/employees and motivating their human resources in a variety of ways. However, the flexible nature of SMEs and their survival instinct makes them strive to convert their resources at the slightest opportunity.

5.1.2.3 Security

On the other hand, securing secrets and 'know how' is positively associated with convertibility of revenue into functionality ($r = 0.904$; $p < 0.01$) and convertibility of revenue into brands ($r = 0.896$; $p < 0.01$). This shows a positive association between the security and convertibility of economic into social capital, suggesting that the higher the level of management confidentiality of knowledge, the higher the level of capital convertibility. This also suggests that management relies on tacit knowledge as a force for competitive advantage in SMEs, rather than explicit knowledge which can be copied or imitated (F5). They may also use their personal contact networks more effectively in discussing business matters in informal ways. In addition, the need for branding suggests differentiation strategies which might also lead to intellectual property for those that need it in a knowledge economy in order to constantly maintain business' success.

5.1.3 Knowledge renewal

This section asks owner-managers to rate the extent to which they use information from each of the major sources to ensure their practices keep pace with current best practice, as detailed in Appendix C. The main associations are in the areas of information from competitors, customers and the internet. Learning processes also asked owner-managers to rate how well their businesses 'build/renew' knowledge through processes in their industry. An organisation can develop its knowledge base by using a number of processes; examples include performance indicators and learning support.

5.1.3.1 Information from competitors

Concerning learning sources, information from competitors is positively associated with convertibility of revenue into functionality ($r = 0.873$; $p < 0.01$) and convertibility of revenue into brands ($r = 0.866$; $p < 0.01$), suggesting that much is gained from

competitors through learning or acquiring knowledge when it comes to using economic capital to develop better attributes for products or services in order to compete in a dynamic market (H2). SMEs therefore see the need to have competitive advantage, which suggests that they focus on their niches to gain an advantage in the market place. Intelligence gathering is therefore crucial for survival and social networks are used effectively for this.

5.1.3.2 Information from customers

Information from customers is positively associated with convertibility of efficiency into revenue ($r = 0.719$; $p < 0.05$). As well as using their competitors to improve their business, SMEs also have close relationships with customers, who help them in adding further value in their efficient use of business assets (H1). This could be through customer feedback and building closer relationships with customers in the supply chain.

5.1.3.3 Information from the internet

The internet emerged as a major source of learning for SMEs. Information from the internet is positively associated with convertibility of revenue into innovation ($r = 0.750$; $p < 0.05$); convertibility of revenue into knowledge ($r = 0.756$; $p < 0.05$); convertibility of revenue into values ($r = 0.750$; $p < 0.05$); of revenue into IT ($r = 0.775$; $p < 0.05$); and of revenue into new strategies ($r = 0.756$; $p < 0.05$). It is also positively associated with convertibility of efficiency into innovation ($r = 0.756$; $p < 0.05$); convertibility of efficiency into values ($r = 0.775$; $p < 0.05$); and convertibility of revenue into innovation ($r = 0.756$; $p < 0.05$).

Information from the internet is also positively associated with convertibility of functionality into brands ($r = 0.756$; $p < 0.05$) and convertibility of functionality into innovation ($r = 0.750$; $p < 0.05$). This information is positively associated with convertibility of functionality into knowledge ($r = 0.899$; $p < 0.01$). It is positively associated with convertibility of functionality into values ($r = 0.750$; $p < 0.05$);

convertibility of functionality into IT ($r = 0.756$; $p < 0.05$); convertibility of partnerships into brands ($r = 0.750$; $p < 0.05$); convertibility of partnerships into innovation ($r = 0.756$; $p < 0.05$); and convertibility of partnerships into knowledge ($r = 0.750$; $p < 0.05$).

In the information age, it is therefore logical for SMEs to obtain much of their information through the internet, with the associated lower transaction cost. This suggests that they spend considerable time internalising knowledge to help their own processes, but that when it comes to knowledge systems, this knowledge is hardly made explicit in terms of formal business procedures, as is done in larger organisations. This may be due to the flexible nature of SMEs and their survival. It could also suggest that they obtain competitor and customer knowledge through this medium by internalisation (H7). SMEs spend much of their cash in gaining knowledge, techniques, new ideas and business opportunities from the internet and selling their products or brands to existing and new customer bases, as well as ideas on continuous improvement.

5.1.3.4 Performance indicators

Performance indicators are positively associated with convertibility of revenue into innovation ($r = 0.717$; $p < 0.05$); convertibility of revenue into knowledge ($r = 0.723$; $p < 0.05$); convertibility of revenue into values ($r = 0.717$; $p < 0.05$); convertibility of revenue into information technology ($r = 0.741$; $p < 0.05$); and convertibility of revenue into alignment ($r = 0.723$; $p < 0.05$). They are also positively related to convertibility of efficiency into innovation ($r = 0.723$; $p < 0.05$); efficiency into values ($r = 0.741$; $p < 0.05$); and convertibility of efficiency into information technology ($r = 0.723$; $p < 0.05$). Performance indicators/benchmarking are also positively associated with convertibility of functionality into brands ($r = 0.723$; $p < 0.05$); convertibility of functionality into innovation ($r = 0.717$; $p < 0.05$); and convertibility of functionality into knowledge ($r = 0.881$; $p < 0.01$). They are also positively related to convertibility of functionality into values ($r = 0.717$; $p < 0.05$); functionality into

information technology ($r = 0.723$; $p < 0.05$); partnerships into brands ($r = 0.717$; $p < 0.05$); partnerships into innovation ($r = 0.723$; $p < 0.05$); and convertibility of partnerships into knowledge ($r = 0.723$; $p < 0.05$).

In striving to defend their niches, this may be the best way to gain intelligence from competitors, customers and others in the supply chain in order to maintain an advantage. Value is therefore needed for human resources in terms of education, experience and training to aid in absorptive capacity through networks (Shaw et al., 2009). These positive associations between the variables for performance indicators and capital convertibility may confirm the use of knowledge from competitors and customers through the internet to continuously renew their knowledge bases in internalisation (I2), which must be motivated in order to add value to the business and increase symbolic capital.

5.1.3.5 Learning support and evaluation

This section asks owner-managers to rate the extent to which each step has been taken to enhance the performance of their organisation in its ability to learn in relation to industry standards. The learning support processes provided are positively associated with convertibility of efficiency into functionality ($r = 0.718$; $p < 0.05$); functionality into efficiency ($r = 0.723$; $p < 0.05$); and partnerships into functionality ($r = 0.723$; $p < 0.05$). The more SMEs learn, the higher the level of capital convertibility. The strategic value of human capital development is necessary to maintain and build on knowledge for business survival through the exploitation of networks. For these kinds of businesses, the internet is still a major tool for learning by internalisation. However, convertibility of knowledge gained from partnerships into functionality suggests tacit to explicit conversion or externalisation, adding value to products and services and enhancing their reputation.

5.2 Design thinking

Through 'social interactive learning' and 'reflective learning', owner-managers can acquire entrepreneurial qualities, enabling them to develop self-awareness and communication skills, enhanced creativity, and the ability to apply knowledge to problem-solving. This part considered the design thinking of owner-managers, with both internal/psychological and external approaches, and looked at changes over a period of time from before the recession (2001-2007) and after it. For internal approaches, owner-managers were asked to consider whether

The approach that the business has taken over the intervening period could be described as: using variables of experimenting, reflecting, organising and sensitivity

Concerning external approaches, owner-managers were asked to consider whether

The business's approach with regard to the above has been determined by ...? options included external variables like the business individually, tentative models and frameworks that the business sensed from its interactions (ephemeral emergents etc.

When analysis was conducted on design thinking, two variables were significantly associated with convertibility: They included owner-managers gaining knowledge and experience from the business individually and some of the tentative models and frameworks that the business sensed from its interactions (ephemeral emergents), as shown in Appendix D

5.2.1 Individual business

Independent action taking or autonomous thinking and action by owner-managers is positively associated with convertibility of revenue into functionality ($r = 0.723$; $p < 0.05$) and convertibility of revenue into brands ($r = 0.717$; $p < 0.05$). The higher the level that approaches to the business are determined individually, the higher the level of convertibility, suggesting the overriding vision and centrality of the owner-managers, and their locus of control and autonomy. This basically relates to mental models and views of the world, which must lead to 'justified belief' based on their decision making processes.

5.2.2 Tentative models

Tentative models gained from socialisation are positively associated with convertibility of revenue into functionality ($r = 0.873$; $p < 0.01$) and convertibility of revenue into brands ($r = 0.866$; $p < 0.01$). The more the business interacts, perceives useful ideas (ephemeral emergents) and experiments with them by trial and error or through abstractions, the higher the level of new knowledge, leading to added value in products/services and perceived capital convertibility, and suggesting the importance of socialisation in *ba* and the 'field' for owner-managers. This mainly implies the use of economic capital to gain social capital by trial and error in products and service attributes and the building of a brand in the market for positive customer perception. Table 5.1 shows the associated results.

Table 5.1: Statistical Results for Internal Aspects

			Experi enting	Reflect ing	Organis ing	Sensiti vity	Individ ual Busine ss	Specific Interacti ons	Tentat ive Model s	Stable Emerg ents	Fundame ntal Socio- Economi cs
Spearman' s rho	Revenue to Function ality	Correlat ion Coeffici ent	-.378	.000	-.401	-.113	.723*	.686	0.873 **	.332	.401
		Sig. (2- tailed)	.356	1.000	.325	.790	.043	.060	.005	.422	.325
		N	8	8	8	8	8	8	8	8	8
	Revenue to Brands	Correlat ion Coeffici ent	-.313	.065	-.324	-.060	.723*	.644	0.866 **	.293	.442
		Sig. (2- tailed)	.451	.879	.434	.888	.045	.085	.005	.482	.273
		N	8	8	8	8	8	8	8	8	8

5.3 Strategic thinking

Strategic thinking considered elements of the strategy map over the period of time from before the recession (2001-2007) and after it. It asked owner-managers to consider the percentage increase variables on the strategy map over time. The main variables were grouped under financial, customer, internal and learning and growth perspectives (Kaplan and Norton, 2004). A number of variables emerged as significantly associated with convertibility on the financial, internal and learning and growth perspectives.

5.3.1 Innovation processes

Innovation processes are positively associated with convertibility of revenue into knowledge ($r = 0.709$; $p < 0.05$); convertibility of efficiency into knowledge ($r = 0.834$; $p < 0.05$); and convertibility of functionality into revenue ($r = 0.863$; $p \leq 0.01$) and positively related to convertibility of functionality into partnerships ($r = 0.834$; $p < 0.05$); functionality into knowledge ($r = 0.797$; $p < 0.05$); and convertibility of functionality into alignment ($r = 0.717$; $p < 0.05$).

This suggests that the more SMEs engage in innovative activities, the higher the level of capital convertibility from human, social and economic capital and vice versa. Human capital and networks are further enhanced and the value of the business is perceived favourably by stakeholders. Their thinking suggests that it is necessary for business development. Sparrow and Patel (2006) report that out of 36 firms studied in the West Midlands region, 5.56% were involved in opportunity identification, 19.44% in R&D and 33.33% in design/development, but that just 2.78% actually went on to launching or converting the ideas at the final stage, as shown in Figure 5.1.

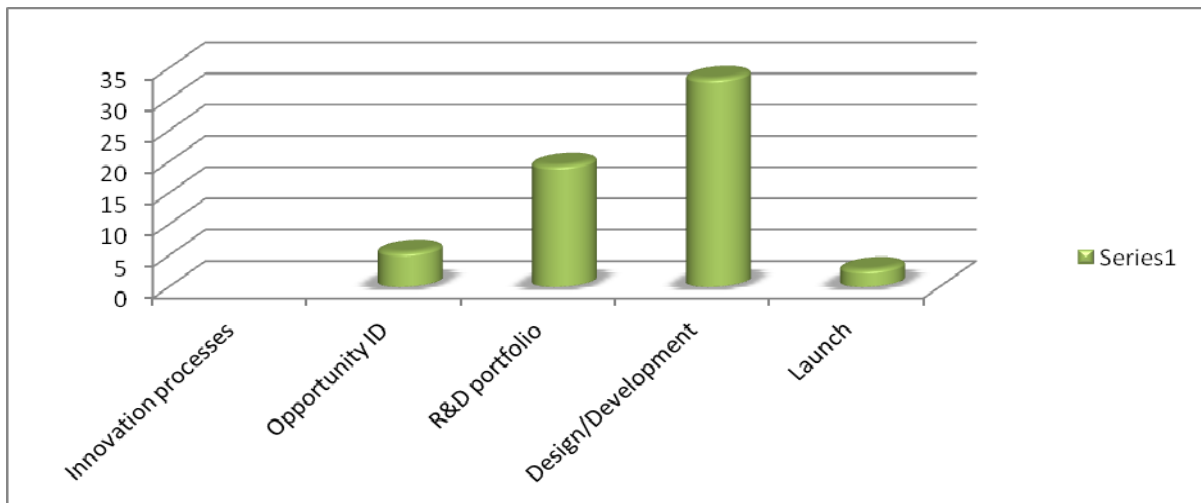


Figure 5.1: Innovation process management

5.3.2 Regulatory and social processes

Capital convertibility is also enhanced by the identification and enhancement of regulatory and social processes within SMEs, which act as a motivating factor, as shown by the results of Spearman's rho, where regulatory and social processes are positively associated with convertibility of efficiency into revenue ($r = 0.877$; $p < 0.01$). This is mainly concerned with the identification and management of risk with regard to internal and external stakeholders for positive business perception. One of the owner-managers is clearly passionate about this area when discussing carbon footprints in relation to business health. Sparrow and Patel (2006) report that 33.33% of SMEs have support in environmental issues, 66.67% in health and safety, 19.44% in employment and 16.67% in community engagement, as shown in Figure 5.2.

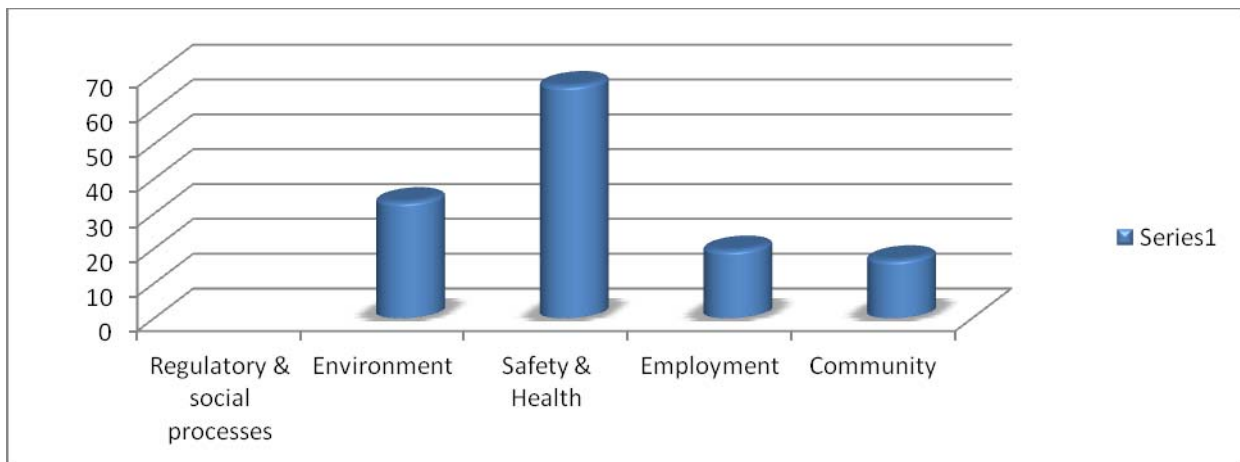


Figure 5.2: Regulatory and social process

5.3.3 Financial perspective

The financial perspective positively supports the convertibility of revenue into innovation ($r = 0.732$; $p < 0.05$); efficiency into functionality ($r = 0.827$; $p < 0.05$); convertibility of efficiency into partnerships ($r = 0.803$; $p < 0.05$); efficiency into branding ($r = 0.727$; $p < 0.05$); and convertibility of efficiency into knowledge ($r = 0.797$; $p < 0.05$). It is also associated with convertibility of functionality into revenue ($r = 0.832$; $p < 0.05$); convertibility of functionality into efficiency ($r = 0.832$; $p < 0.05$); functionality into partnerships ($r = 0.797$; $p < 0.05$); convertibility of functionality into innovation ($r = 0.732$; $p < 0.05$); functionality into knowledge ($r = 0.806$; $p < 0.05$); and functionality into values ($r = 0.732$; $p < 0.05$). A similar result is shown for convertibility of partnerships into revenue ($r = 0.757$; $p < 0.05$); partnership into efficiency ($r = 0.797$; $p < 0.05$); partnerships into functionality ($r = 0.832$; $p < 0.05$); partnerships into innovation ($r = 0.738$; $p < 0.05$); and convertibility of partnerships into knowledge ($r = 0.732$; $p < 0.05$).

Finance is necessary for business survival, especially in periods of economic upheavals. This confirms Bourdieu's notion that economic capital is necessary for convertibility, as Shaw et al. (2009) consider it in terms of household incomes,

finance from external networks and organic growth. In their study, they also consider gender and Tether (2005) examines sectors. The more an SME has or can generate, the higher the level of its convertibility and reproducibility of economic capital. Sparrow and Patel (2006) report that 75% of SMEs are involved in improving cost structure, 41.67% in increasing asset utilisation, 66.67% in enhancing customer value and 50% in expanding revenue opportunities, as shown in Figure 5.3.

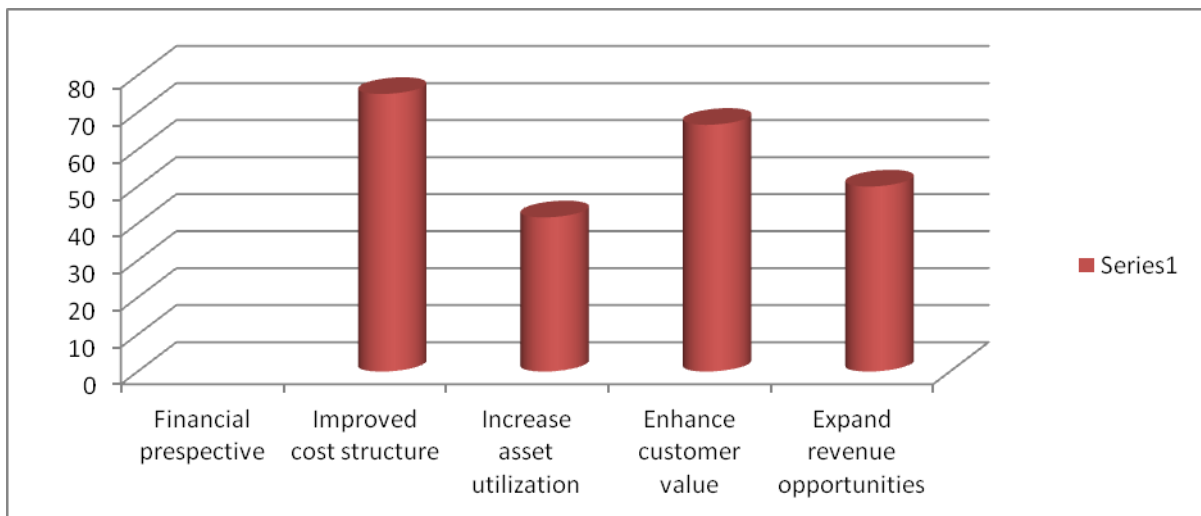


Figure 5.3: Financial perspective

5.3.4 Information capital

Information capital is positively associated with convertibility of functionality into revenue ($r = 0.767$; $p < 0.05$). As suggested in the knowledge management audit, the internet will play a pivotal role, suggesting speed of gathering information, enhancing human capital and through *ba*, communicating with business partners for convertibility. Sparrow and Patel (2006) report that less than 10% of SMEs are involved or supported in transformational, analytical and transaction processing applications (ERP, MRP etc), but that 52.78% are supported in technology infrastructure, as shown in Figure 5.4.

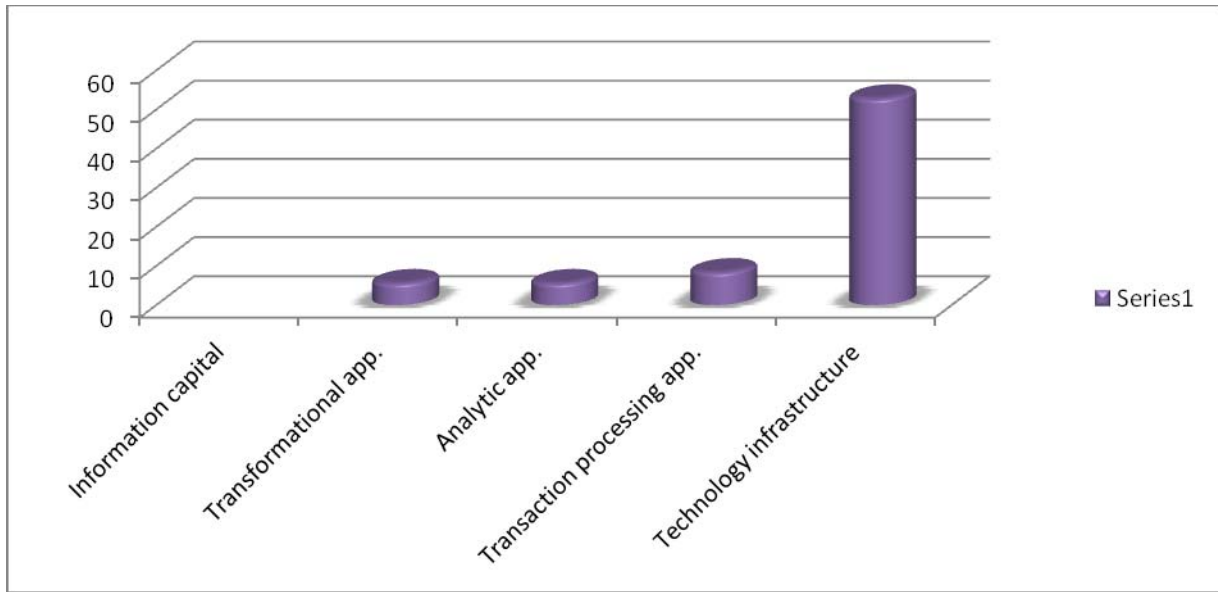


Figure 5.4: Information capital process

5.3.5 Organisational Capital

Organisational capital is positively associated with convertibility of revenue into functionality ($r = 0.723$; $p < 0.05$) and of revenue into brands ($r = 0.717$; $p < 0.05$), suggesting that where there is a shared vision where core capabilities are identified and value are assigned to them. Sparrow and Patel (2006) report that 25% of businesses receive assistance in culture change, 58.33% in leadership and 83.33% in teamwork. However, less than 10% report support in alignment, as shown in Figure 5.5.

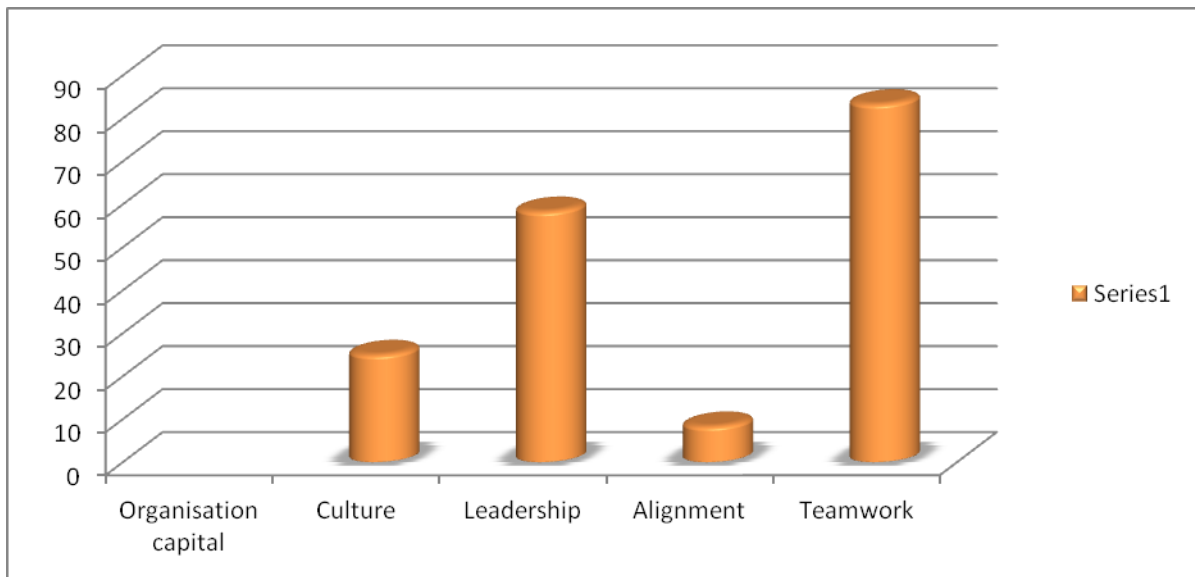


Figure 5.5: Organisational capital

Sparrow and Patel also report that

“...similar research has investigated the role that intangible assets such as human capital, information capital and organisational capital can play in relation to learning and growth.” (p3)

These intangibles are critical for SME value creation. It is argued that this is based on owner-managers’ knowledge, past experiences, education and training which can be applied to organisational and information processes to gain necessary networks using economic capital to enhance the convertibility process.

5.4 Conclusion

The above results therefore support the point that knowledge management is necessary for owner-managers and SME capital convertibility and survival in a dynamic economy. It is noted that even though areas on knowledge in use such as mental models and types of thinking were not significantly associated with convertibility, a further analysis of these using strategic and design thinking may reveal their significance, considering owner-managers’ centrality as an embodiment

of the business. Such thinking suggests that entrepreneurial capital convertibility is highly plausible when owner-managers think about solutions in a dynamic environment based on their traits in order to make judgments in the entrepreneurship process.

5.5 Presentation of mixed data results

Following on from the statistical results, this section sets out to find the patterns of convertibility by adopting a case study of the SMEs surveyed based on the thinking of owner-managers so as to better inform a model on entrepreneurial capital convertibility dynamics. In so doing, the businesses need to be disaggregated into groups suggesting high and low levels of convertibility. Once this is done, in-depth analyses will be carried out of each case in order to compare and contrast them.

5.5.1 Ranking of case studies (CS)

The businesses are first ranked in order of their convertibility scores, as shown in Figure 5.6.

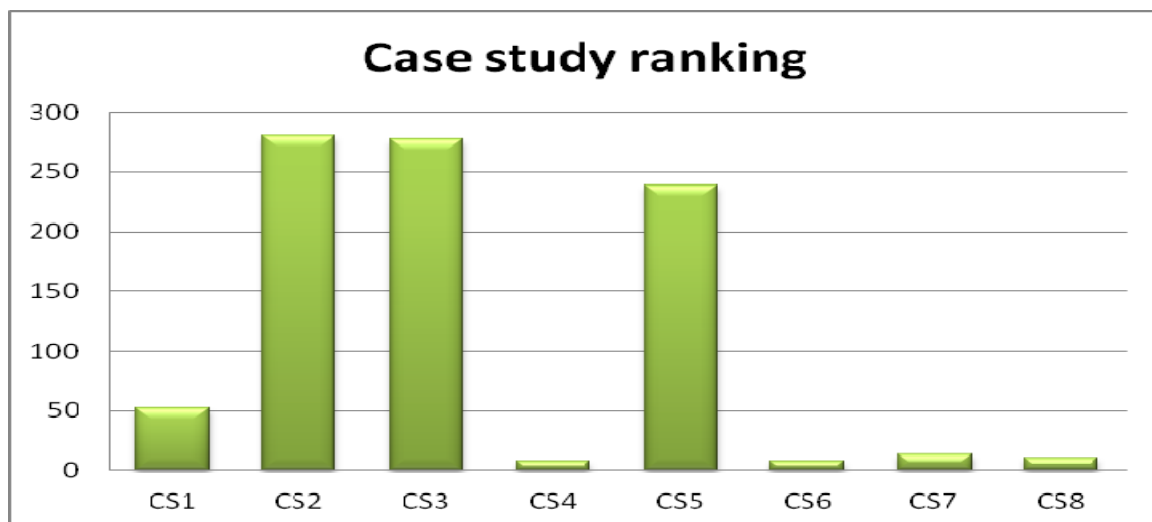


Figure 5.6: Ranking of cases

From the above ranking, four SMEs with low ranking (CS4, CS6, CS7 and CS8) and three with high ranking (CS2, CS3 and CS5) were chosen for further analyses. One was neither at the top level or the bottom (CS1). This was further analysed using an independent t test to confirm any distinction. The means of the top three firms (CS2, CS3 and CS5) showed a marked difference from the others and the p-values were also markedly significant ($p < 0.05$), suggesting significant variability in scores between the two groups, as shown in Appendix I. Convertibility scores showed a marked difference between SMEs in the higher rank against those in the lower one using the variables for entrepreneurial capital convertibility. The significant levels of convertibility given by the correlation will be further discussed, as well as other convertibility elements on a case study basis.

5.6 Cases suggesting convertibility at the high level

5.6.1 On knowledge management

The responses given by owner-managers on knowledge management suggest that these businesses are taking an approach most similar to a strategic and planning one. Sparrow (2001) reports that about 40% of SMEs have this stance and may carry out rigorous and comprehensive efforts for business development, oriented around leadership and strategic vision. Such SMEs may miss opportunities for collaboration with and learning from others. However, strategic and design thinking show different patterns, which are further analysed at the different levels of convertibility. The SMEs at this level included CS2, CS3 and CS5

5.6.1.1 Knowledge in use

5.6.1.1.1 Knowledge base

The relative strength that CS2 has is in the areas of sales revenue and workflow processes. On the other hand, the relative strengths that CS3 and CS5 have are in the areas of sales and finance, suggesting that they may need to develop internal processes through convertibility. There can be dangers in focusing on the 'internal' aspects of business operations. However, businesses must be integrated internally before being able to adapt externally. This suggests that CS2 and CS5 are following a revenue growth strategy, with CS5 focused on market convertibility in product/service design. CS3 on the other hand seems to be focused on optimising its fixed costs by focusing on asset utilisation. The mean scores for the businesses show that those considering convertibility are better at sales, workflow management and product design than those at a low level. This may suggest forward thinking about markets and their impact on business survival, which can be seen as being more proactive and optimistic and taking a more market oriented view.

5.6.1.1.2 Kinds of knowledge

CS2 and CS3 have undertaken a moderate level of analysis of the roles that different kinds of knowledge play in the work of individuals. Prominent amongst these are general style of working and individual personality and skills (CS3). This shows the need to understand that different kinds of knowledge are 'in use' in the course of people making decisions at work. It therefore needs to be considered how frequently owner-managers assess the roles that different kinds of knowledge play. CS5 appreciates the need to understand that different kinds of knowledge are 'in use' while decisions are made. The analyses conducted on the roles of personal/technical understanding and critical experiences may be more extensive than those of the roles of some of the more tacit aspects of knowledge. Whilst it is hard to identify the role that some of these less conscious aspects of behaviour play in decision-making, they need to be recognised if these SMEs need to engage in entrepreneurial capital convertibility.

5.6.1.1.3 Forms of thoughts

It seems that businesses reporting convertibility at a high level have undertaken a moderate level of analysis of the roles that different forms of thought (e.g. words, pictures, diagrams, touch etc.) play in people's decision-making and consider the fact that people often use different forms of thought in making decisions. This shows that explicit knowledge is more prominent (especially in CS2 and CS5). Restricting the information that people can use may undermine their ability to use important knowledge. CS3 uses more tacit knowledge than CS2 and CS5.

5.6.1.1.4 Types of thinking

CS2 has undertaken a moderate level of analysis of the roles that different types of thinking (e.g. reasoning, creativity and mood) play in entrepreneurial capital convertibility. The responses indicate that it may not have properly assessed the role that creativity and mood (emotion) play in the organisation's success compared to

CS3 and CS5, and that it needs to consider that creativity and innovation are required in everyday decision-making to stay entrepreneurial. It could then consider mechanisms for establishing the ways that types of thinking can be enhanced. On the other hand, CS3 and CS5 have undertaken a high level of analysis of the roles that different types of thinking play in entrepreneurial capital convertibility.

5.6.1.1.5 Knowledge recognition

It is important for SMEs to recognise the role of knowledge in their activities. CS2 has a high level of appreciation of the knowledge it has, the value of this knowledge and what further knowledge it needs. CS2 could consider means to communicate the value of the knowledge in the SME through knowledge tools like the 'balance sheet', and with all external networks. This will entail an alignment of ideas with the goals of the organisation, which depends on the particular vision of the owner-manager and the approaches taken to achieve the goals. CS3 and CS5, on the other hand, have a moderate appreciation of the knowledge they have, value and further knowledge needs. Recognising the level of knowledge is fundamental for entrepreneurial capital convertibility.

5.6.1.1.6 Summary of knowledge in use

The scores show that SMEs considering entrepreneurial capital convertibility focus on sales, workflow processes and product design. This may suggest forward thinking about markets and their impact on business survival, which can be seen as being more proactive and optimistic and taking a more market oriented view. This further confirms owner-manager thinking for SMEs converting at a higher level in revenue growth strategies.

They also suggest a high degree of analysis of personalities or traits to convert to tangible benefits. This could help to better understand the knowledge in SMEs and,

more importantly, customer perception analysis, which will help target customers and improve sales.

5.6.1.2 Knowledge systems

The knowledge system seems to be the most developed capability in CS2 and CS5, but at industry level for CS3. It is important to ensure that comprehensive and usable knowledge is accessible in an efficient and secure manner. They are implementing and embedding knowledge in ICT and may then consider how they might extend systems to support the more subtle aspects of knowledge. Knowledge systems can always be enhanced and businesses could consider the role of a continuous improvement philosophy and system for improvement.

5.6.1.2.1 Features of knowledge

The accessibility and comprehensiveness of knowledge systems for CS2 and CS3 are limited and they might need to consider additional information/knowledge integration. The statistics suggest that convertibility will continue whatever the level of coverage and accessibility. The businesses may therefore consider the ratio of PCs to staff, whether individuals are granted access to the knowledge they need and whether information is kept in accessible forms. However, the levels of security are high. When information is only held in people's heads, security may not be a primary consideration. As more and more knowledge is captured and embedded in systems, security becomes increasingly important. CS5 could also consider reviewing access procedures and whether others can accidentally access sensitive information.

5.6.1.2.2 Knowledge location

CS2 has taken steps to embed knowledge in several ways. The management of knowledge will become an increasingly important factor in competitiveness and CS2 may need to secure some advantage by locating knowledge effectively. It has developed a highly skilled and knowledgeable processes and people. CS2 also feels

that it has been able to create business processes and practices that are the product of many years of experience and should consider the most successful processes and apply those lessons to some of the ones which are lagging in order to achieve continuous convertibility. It also reports some success in capturing expertise in formal intellectual property rights. In all, CS2 feels that it can take advantage of the contribution of ICT to capture, store and transfer knowledge effectively. Real competitive advantage can be secured from state-of-the-art deployment of ICT and continuous learning.

CS3 and CS5 need to consider knowledge holistically. Embedding knowledge in business processes, and building ICT systems to assist in knowledge management are steps that competitors may be taking. CS3 also suggests that it has created business processes and practices that are the product of many years experience. CS3 and CS5 may need to find out what developments are taking place within ICT and consider how they may assist the organisation. Examples could include automatic internet searching, document management systems and e-business systems.

5.6.1.2.3 Summary of knowledge systems

The above shows that SMEs suggesting convertibility at a higher level make good use of the little explicit and more tacit knowledge that they have and have more knowledge in their people, businesses processes and ICT. This implies that they value their human resources and will motivate them to externalise knowledge into processes and practices which are more common with technology and necessary in a knowledge market and entrepreneurial capital convertibility.

5.6.1.3 Knowledge renewal

The report shows that knowledge renewal capability is the least developed knowledge management practice for CS2 and CS3 compared to the other areas of knowledge management. Developing an organisational culture and systems to engage in on-going reflection and development of current practices may be difficult. The business needs to identify the aspects of learning that most threaten competitiveness and engage the appropriate focus. CS5, however show knowledge renewal capability as more developed. There is still scope for further enhancement and it might consider which aspect of the organisation's ability to learn is of most concern.

5.6.1.3.1 Learning sources

CS2 and CS3 have developed some effective ways of learning from customers, making efforts to learn about what customers do; knowing what competitors know; how they do what they do; the expertise that they have; and whether the business should be seeking to acquire it, or should be leveraging more value out of its own expertise, to have a very different offering from competitors. This shows that they understand the usefulness of partners in the supply chain in continuous transformation. They have also developed some effective processes to secure learning, considering how it can target further development upon best practice networks, benchmarking and communities of practice. The business will need to consider the extent to which current management practices are impairing learning.

CS5's use of alternative sources of learning seems to be reasonably extensive and it needs to consider whether and how it reviews the use of these sources. It has developed some effective ways of learning from customers and could consider enhancing learning from other sources by knowing what competitors know. It may also consider using a competitor's product or service; using market research to assess customers' use of competitors' products or services; using business

directories; visiting competitors' stands at exhibitions; and setting up competitive intelligence systems to retrieve information on competitors' products/services regularly. Suppliers are co-producers and there is always scope to realign who does what in the relationship. It could consider developing closer links to discover what they are developing; setting up an extranet for all suppliers; making contacts at exhibitions and events to establish who else they supply and what they supply; and checking the organisation's records of specifications against suppliers' specifications. The business is also able to learn from partners and could consider ways in which it can enter new fields and allocate the lead learning. It has developed a presence in some valuable networks and could consider whether it has experiences of how to achieve this, given some insight into how it might develop new networks to support convertibility.

5.6.1.3.2 Learning processes

CS2 and CS3 have developed some effective processes to secure learning and could consider how they can target further development by best practice networks, benchmarking and communities of practice and how to access expertise through seeing best practice in action. It can be useful to identify the performance indicators that others use to assess their practices. Benchmarking one's own performance against others is a valuable learning process. The SMEs may then consider whether trading and non-trading networks are sufficiently extensive, as well as what the terms of reference of any best practice networks are. CS3 seems to be benefiting from trade bodies that add value to the business and have developed many processes to secure learning.

CS3 has also developed some effective means of achieving internal dissemination of good practices. Discussions between workgroups can identify shared priorities and concerns that increases entrepreneurial capital convertibility. It could then consider the means through which it might identify shared concerns and gain joint insight into external best practices. The practices that enable an organisation to learn can

always be improved and CS5 shows a slight increase in this aspect. The areas and means of improvement need to be guided by systematic evaluation of organisational learning as a whole. These SMEs may wish to consider developing systems to review individual, task, work team and organisational learning.

5.6.1.3.3 Learning and evaluation

These SMEs suggest the development of internal dissemination of good practice. Simple presentations of ideas to different work teams and discussion of potential wider lessons can be effective. They may consider the scope of coaching and mentoring. Many aspects of practice are very subtle and only through repeated exposure to, and discussion of, skills can learning occur.

5.6.1.3.4 Summary of knowledge renewal

In line with the product/service design and higher sales level, they show a higher level of learning from customers and competitors. This further confirms the market orientation approach that they may be adopting. As suggested by the statistics, which show a significant association with convertibility, they also show learning through internalisation from the internet and from trade bodies to a greater degree than SMEs thinking of convertibility at a lower level and make more use of performance indicators to develop their knowledge base.

5.6.1.4 Knowledge Economy

The responses suggest that these are the stronger competencies for these SMEs. It is therefore necessary to look at the area of competence that is least developed and consider a plan for operational improvements or a need for strategic developments in this regard. The organisations have clear competence in analysing the environment, formulating plans and managing changes. They need to consider the profile of strengths and development needs. Strategy for securing ongoing operational improvements in knowledge practices within business processes is very developed

and knowledge and experience can be cascaded towards other core areas for continuous entrepreneurial capital convertibility.

5.6.1.4.1 Summary of knowledge economy

It appears that these SMEs have developed best practice and are good at internal processes, converting such to desired products and services for customers and must concentrate on key performance indicators for continuous improvement and survival. Through this, there is support for individuals to learn compared to those at a lower level. They understand the knowledge driven economy better than their counterparts. This may be because they know what customers need and are currently meeting expectations. However, they show a greater need for change than those at the lower level.

In change management terms, they are continuously considering the need to develop their ICT, used in capturing knowledge in an age when technology has a short life span, as opposed to those at a lower level. In this sense, they report having conducted more strategic analysis and planning, suggesting they are forward thinking, proactive, market oriented businesses, with the need for achievement. They suggest flexibility in resource allocation and time management in a dynamic economy compared to the others. This suggests that those at a high level are more flexible and need to develop a system to adapt to their environment by being more environmentally sensitive. However, adaptability is borne from flexibility and further study is required to consider the reverse.

5.6.2 On strategic thinking

5.6.2.1 Learning and growth perspective

At this level, CS2 shows a marginal level in human, information and organisational capital. The level of human capital is low for both CS3 and CS5, but CS5 has a marginal level of information capital, CS3 has a higher level of organisational capital than CS5. This also considered the interview conducted

The interview questionnaire covered this area of strategic thinking, which is dedicated to the learning and growth perspective, covering leadership, values and knowledge, or basically *what I know or what I dare*, by asking a question that takes into consideration trends for the past and practices in order to predict the future. This may provide an insight into the above differences. When organisational culture was considered, which is significantly related to convertibility, key words were sought under the various variables (i.e. culture, leadership, alignment and teamwork). Information capital is related mainly to technological applications, while human capital is made up of knowledge, skills and values.

In line with the format of the questions, the word 'think' came up 19 times (5 times for CS2 and 7 times for both CS3 and CS5) in the answers, suggesting the mind processes which mostly reflect values rather than practices. This is in contrast to the 70 times in the other four businesses. This means that the other aspects were confidently stated as practices and suggests that businesses displaying higher convertibility are taking present action and thinking about the future

The first question was:

"In the past one of the key attributes we looked for in people might have been hard work or ruthlessness! What do you think the basic 'values' of management might be in the future?"

This question was looking for entrepreneurial characteristics of motivation, the need for high achievement, ambition, persistence, locus of control, tendency to take risk, desire for accountability, tolerance of uncertainty, knowledge, experience, skill at organising, self-confidence, personal values and accountability. These concepts were then extended to social capital using *ba* in terms of teamwork and how these are aligned to business objectives through the SECI process of convertibility and knowledge creation.

5.6.2.1.1 Case studies on the learning and growth perspective

There were three case studies at this level which included case study 2 (CS2), case study 3 (CS3) and case study 5 (CS5). Some of the main comments are included below.

According to the owner-manager of CS2:

“I think hard work will always be important in management.”

(Owner-manager, CS2; 04/07/12)

As an entrepreneurial owner-manager, a need for achievement and personal responsibility is high and so confirming hard work reflects the motivation to continuously adopt a style that is entrepreneurially focused, suggesting an optimistic personality: he further stated that

“We are now 10 years in business and I think we’ve talked about our knowledge base and it is very optimistic and that is why we are successful as a business.” (Owner-manager CS2; 04/07/12)

This also shows an expansion to team members and leadership when he uses the word ‘we’, as well as convertibility in the SECI process. He also suggested that

“The mantra I have with my colleagues is about how hard we will work and as a manager you have to lead by example, so you have to work hard and so

hard work is something you need to have as an inherent skill or attribute.”
(Owner-manager, CS2; 04/07/12)

In this sense, he uses the terms ‘manager’ and ‘leader’ interchangeably, which might not easily indicate whether he is an effectual or causal decision maker. Teamwork and knowledge leadership are emphasised when he discusses working with different emotions, feelings and personalities by stating that

“Most businesses are people businesses and you have to keep people on side. It is tough out there and people have social things that happen at home and in their daily lives that you need to support, so you have to be a people person when people are having a tough time externally; you have to as a company show them a level of stability in their lives and support them.”
(Owner-manager, CS2; 04/07/12)

This is supported by the statistics, even though it is not significant. Teamwork and leadership have been widely researched, but as suggested by Sparrow and Patel (2006), alignment to business objectives is always an issue due to the absence of a vision of the bigger picture. This owner-manager, however, suggests a clear alignment to information capital, which is the core of the business, through his vision of

“...taking the lead in pioneering technology initiatives.” (Owner-manager, CS2; 04/07/12)

He suggests a shared vision and alignment of culture, leadership and teamwork to business objectives by using the words ‘understand’ and ‘know’ based on knowledge and skills through self audit in ‘reflection’, given that the business is in a specialist market, emphatically stating that

“...we understand our market and customers and we are always reflecting on the market and we know what we are doing as an organisation.” (Owner-manager, CS2; 04/07/12)

The above suggests a synthesis between management and customer perfection for value added. This is in the context of tough economic times, suggesting a need for continuous improvement and standard setting. The trend analysis shows a 5% increase in human capital. However, according to the scores gained in this aspect, there was a 17.7% decrease in information capital and an identical 17.7% decrease in organisational capital for CS2.

Based on owner-manager of CS Q2's personality, he is shown to be extroverted, fair and internally driven as both an owner and manager. This suggest a personality centred around achievement motivation, risk taking, innovation and internal control, somewhere between a charismatic and standard setter when it comes to leadership styles (Gertsberger, 2007), but the emphasis is more on being a standard setter, which corresponds to a strategy of product or service leadership.

On the other hand, the owner-manager of CS3 states that:

“I think management is changing and no doubt about it. The old style manager has had to adapt to change. Certainly hard work is still important, particularly in the current economic environment.” (Owner-manager, CS3; 18/06/12)

The keyword here is ‘change’, signalling a dynamic personality that understands the working of the institutions in which the business operates. Also noted here is the point that some level of ruthlessness is needed in a changing economy:

“Yes, we are reasonably ruthless in business, I certainly am, but I would like to think I'm fair.” (Owner-manager, CS3; 18/06/12)

This suggests a strong locus of control. Some key words here include ‘we’ and ‘fair’, which suggest that people are valued and included in the thinking of the owner-manager. This is made explicit when he suggests that

“I would like to think we have an open door policy and are fair about people coming to see me; they may not because I'm the boss, but I make sure I go out of my way and try and see them. I have tried to treat people so and if I

think there is a problem, I would like to go to the problem rather than the problem coming to me.” (Owner-manager, CS3; 18/06/12)

This shows someone who likes to take responsibility, as well as manage crisis whenever it arises. In stating the above, he is reconciling a culture of accepting change with a tough leadership to a ‘we’ culture, based on entrepreneurial characteristics. In further making this link, he states that

“...we, as a business, are moving forward and hard work is important; we are certainly running now with less people than we had in 2007 and certainly less than we had in the early part of 2000.” (Owner-manager, CS3; 18/06/12)

Hard work is reflected in the knowledge of such an entrepreneurial owner-manager, who has a finance background and is particular about IT and processes, especially in using signs and pictures in the organisation as well as diagrams or conceptual knowledge in dialoguing *ba*. This then suggests a connection where new concepts are embedded in systemic *ba*

“...technology is important and making sure that you are very flexible and I think SMEs are very flexible.” (Owner-manager, CS3; 18/06/12)

These are all aligned to regulatory and social processes when organisational culture is embodied in exercising *ba* when he states that

“The ruthless side still has a place in business but our social elements and human resource requirements demand that we have equal opportunities. In this business we are strict with regard to health and safety and the behaviour of staff.” (Owner-manager, CS3; 18/06/12)

This suggests reconciliation with first the internal customers and then with a vision of partnering with customers. This is further elaborated when he makes a connection with the vision in support of new concepts and models gained from socialisation by suggesting that

“...partnerships I think are very important. Certainly one of the successes we have is that we have been able to enter into a lot of framework agreements as we now operate under about 9 framework agreements which give us an opportunity to be able to have one of 4 or 5 preferred suppliers. It does not guarantee the work but it’s meant that we have been able to get some very sizeable contracts; we are working hard on those and it’s actually benefited us. It has been a lot of hard work to get those. There are partnerships in working very closely with the customers in a working partnership relationship and adding value to their business and giving us a good amount of business as well.” (Owner-manager, CS3; 18/06/12)

The above statement clearly suggests an alignment of vision to business objectives or convertibility of intangibles into tangibles in terms of winning contracts. The learning and growth perspective shows a high level for organisational capital, as opposed to other SMEs, which show support for workflow processes, knowledge of finance in seeing the big picture and sales, supporting the statistics on convertibility.

Looking at the trend analyses, data for CS3 had a substantial increase in organisational capital of 28.33% and a 4.52% increase in information capital, providing a very positive stance in a dynamic and economically volatile environment, as shown in Figure 5.7.

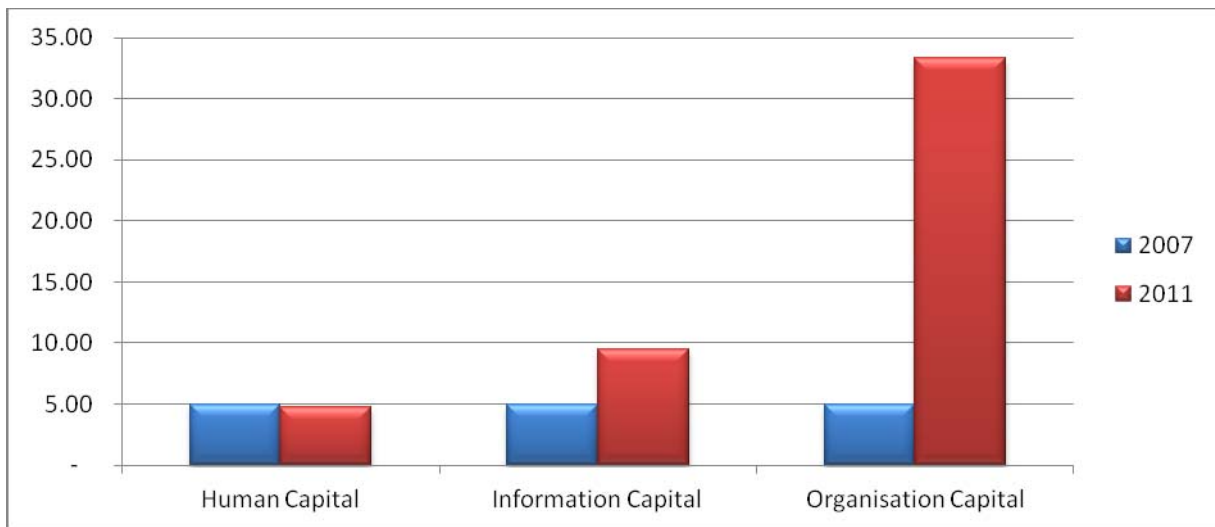


Figure 5.7: Learning and growth trends for CS3

While this shows a ruthless style in leadership, it also portrays a fair attitude to work teams. The personality portrayed is that of an optimist owner-manager who is aware of the environmental signals and adjusts to them. It also suggests that he has a firm grip on the processes for generating revenue through sales and strives to convert them into other capital forms, as suggested by the strong association between organisational capital and convertibility. This is also supported by information capital and convertibility by a directive style of leadership.

The owner-manager of CS5 on his part suggests that:

“...it’s always going to be hard work, but basically the culture of the company needs to change to be more cooperative with people.” (Owner-manager, CS5; 12/09/12)

The keywords here include ‘change’ and ‘cooperation’. The owner-manager suggests the need for a dynamic SME to reflect the dynamic and complex nature of the environment. This suggests teamwork and a leadership style based on empowerment of staff, moving from routines to experiential knowledge when he suggests that

“...we are going to try to get people to start working and thinking for themselves, managing themselves better. I do not think it will be ruthless, I think it will be hard work, cooperative as well, with people managing themselves, understanding what they need from the board and flowing down to other parts of the organisation.” (Owner-manager, CS5; 12/09/12)

However, the value of ruthlessness is not ruled out as a style when needed. This would suggest a need to adapt to different styles depending on the environment.

“...personally, ruthlessness has never come into it, but in the future it might possibly come in because you have more people dependent on the company and turnover is getting bigger and more things can go wrong.” (Owner-manager, CS5; 12/09/12)

This shows a mix between participative and directive styles at this point.

Stating this, his practice reflects a more participative style, but values may include ruthlessness, suggesting a standard setter or directive style. The learning and growth perspective shows that information capital is crucial, as shown in Figure 5.8, even though it is not substantial.

Looking at the trend analysis therefore, data for the learning and growth perspective shows an increase of 36.36%, with a 16.68% decrease in human capital, a 66.67% increase in information capital and an 81.81% increase in organisational capital as in Figure 5.8.

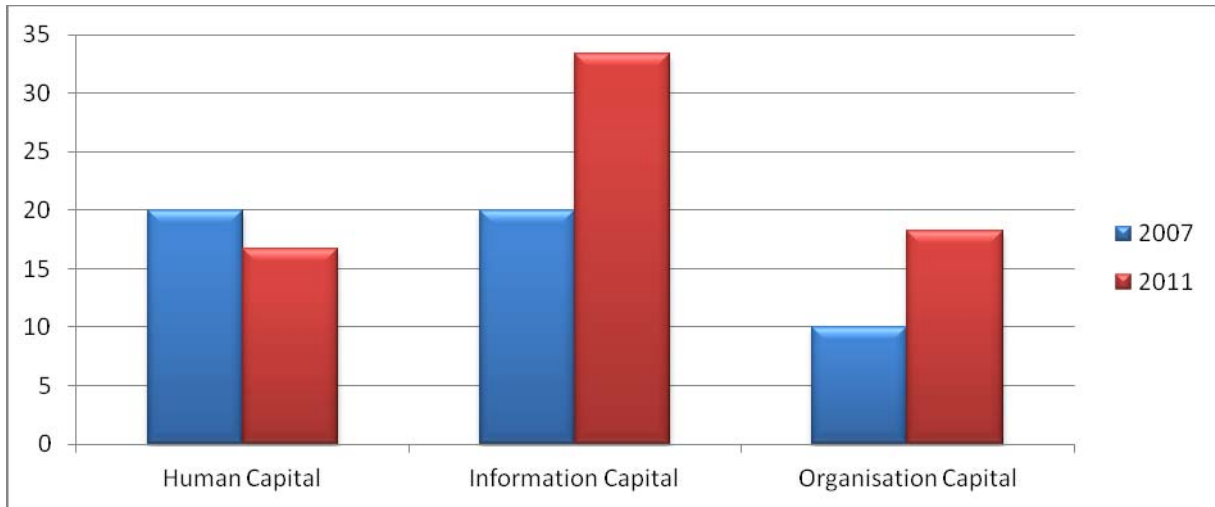


Figure 5.8: Learning and growth trends for CS5

The increase in information capital and decrease in human capital supports the knowledge management assertion of a positive approach in knowledge systems, with a rather minimal relationship on the supply chain, where only customers are considered. This could suggest a lack of finance to support convertibility and the need to use the existing human capital in an optimum way, to make their knowledge explicit through standard operating procedures and by rewarding them to stick to the business objectives, thereby showing an increase in organisational capital.

5.6.2.1.2 Summary on the learning and growth perspective

The above discussion supports the importance of information and organisational capital aiding in the convertibility of social capital to economic capital and vice versa. As suggested in the knowledge management audit, the internet will play a pivotal role, suggesting speed of gathering information, enhancing human capital and through *ba*, communicating with business partners for convertibility. It also suggest that where there is a shared vision, core capabilities are identified and value is assigned to them, thereby increasing the level of convertibility in a dynamic economy.

5.6.2.2 Internal perspective

Some of the key words from responses on the internal perspective were adapt, customers, get, start, change, risk, safety and community.

For these processes, the question concerning *what I know or what I can do* takes into consideration trends from past practices in order to predict the future. The question was:

“In the past, the keys to business success have been argued to be things like effective cash management, risk management etc. What do you think the key to competitiveness in the future might be?”

This question also asked about the thoughts of owner-managers and examines the main issues of processes, which are to do with risk and the generation of cash.

5.6.2.2.1 Case studies on the internal perspective

CS2 shows a very high level in innovation processes compared to the other businesses. This suggests that they are quick to identify opportunities and exploit them to gain an advantage in the market. Given the nature of this business, its survival will depend on creativity and speed of innovation. However, it suggests the same level of managing innovations through the operations management processes in terms of communicating to customers and sourcing from suppliers, which may pose a risk for the business in terms of cash flow. However, the owner-manager is aware of this when he suggests that

“...I think cash and risk management are key, and especially cash management.” (Owner-manager, CS2; 04/07/12)

Processes always start with sourcing from products or raw materials from suppliers, which are used in production or converted and then sold to customers. This is on the

supply chain and it involves a demand pull and supply push strategy. It therefore involves working capital, which can be risky for SMEs in a crisis period and justified decisions need to be made considering various options. The owner-manager therefore states that

“...we never push the boat too far and there is always a balance, so we have to invest in the market or product development as we realise that if we spend too much money and do not recoup enough in the same amount of time, it will give us a problem. We are therefore always concerned about our cash management.” (Owner-manager, CS2; 04/07/12)

With moderate sales level and good workflow management, CS2 will be able to generate profits which must be transformed into cash at lower risk. The word ‘invest’ here indicates an optimistic outlook and the desire to take calculated risks based on decisions from various options. The collaboration on the supply chain suggests efficiency in work flow and working capital management. This only happens when the business has customers who need their services in a demand pull situation. Without customers, there is risk of no cash flow and therefore business bankruptcy. The owner-manager therefore links this with the markets by stating that

“...risk management is also important as there are a lot of markets we could have taken the company into but we resisted the temptation because the risk was too great and the stretch and focus of our business will be lost.” (Owner-manager, CS2; 04/07/12)

With a strong customer base, as reflected in the customer relationship management, there is bound to be constant improvement in order to retain customers, acquire new ones and grow the company. This is only achieved through new opportunity identification, which is based on market research and the development of these processes and the launch of new products and services from new concepts in dialoguing *ba*. This can also involve identification of new areas to invest in and the owner-manager states that

“...considering that we have been in business for 10 years now, we have just made an acquisition of another business so we now have to manage the pennies for a period of time because we just made this big outlay. So it’s always going be a consideration within the context of being a successful company.” (Owner-manager, CS2; 04/07/12)

The above indicates market and organisational innovation, which may be risky and needs the right processes to effectively manage cash in a volatile environment. This is therefore related to the R&S process and aligned to vision, culture, leadership, technology, knowledge and values when the owner-manager concludes that

“...the keys are flexibility, adaptability, knowledge, understanding, but never forgetting cash and risk management from a management perspective.” (Owner-manager, CS2; 04/07/12)

Flexibility and adaptability are keywords here, which suggest an absorptive capacity for knowledge integration and dynamism with the environment. This implies a leadership style that considers processes but knows the value of change in the survival of the business. Flexibility may aid in creativity and innovation in services through the application of this knowledge, experience and by staying focused on the strategy.

While the internal perspective was the least developed for CS2 in comparison to the others, data from the trend analyses showed no change in regulatory and social processes, but a substantial increase in innovative processes, showing some risk management and equal increases in customer and operations management processes for CS2, as shown in Figure 5.9.

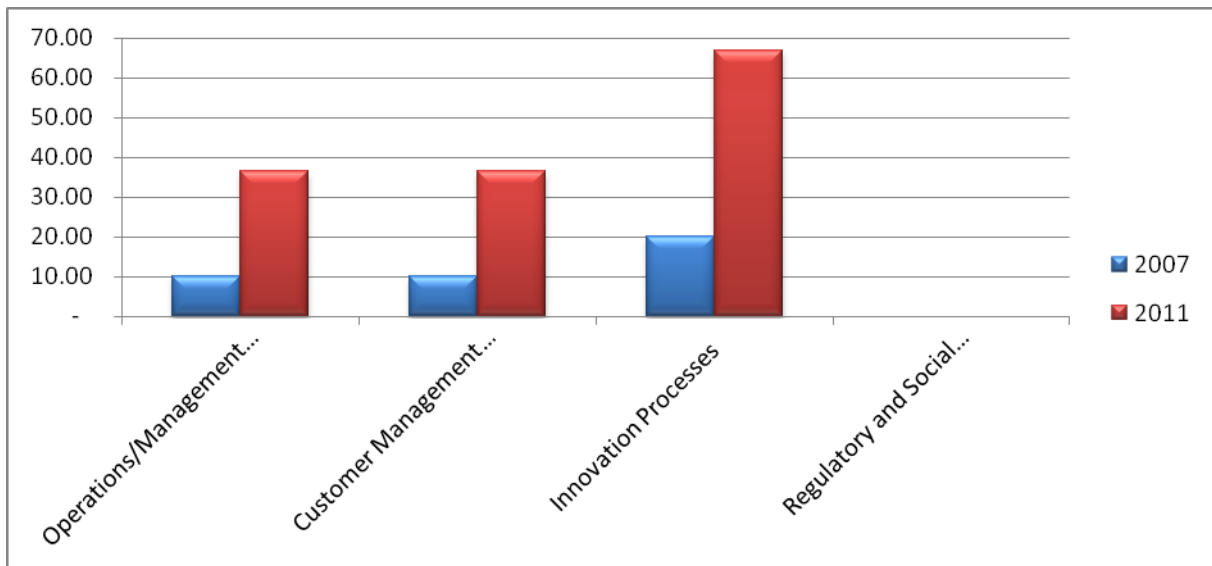


Figure 5.9: Internal process trends for CS2

There is a mixture of human and economic capital with knowledge, people and resources. Key components here include R&D and innovation capabilities, ICT systems and speed of innovation, pointing to technological strength. Creativity is made valuable on the supply chain in the link to suppliers and customers.

On the other hand, CS3 shows the same level in operations management but a low level in customer and innovation processes. This may be because of the saturated market that it finds itself in, meaning it must therefore be particular about managing cash flow and any risks inherent in the market. Considering business processes in cash and risk management, the owner manager of CS3 suggests that

“...I think the business has to continuously consider cash and risk management as they are terribly important.” (Owner-manager, CS3; 18/06/12)

Confirming that cash and risk management are important along the supply chain, things can easily go wrong if further analysis is not made of the wider environment in terms of competitors. The owner-manager therefore suggests that

“...businesses have to continuously consider cash and risk management as they are very important and as we see continuous competition driving down prices and cost, businesses will have to work more efficiently and effectively.” (Owner-manager, CS3; 18/06/12)

The supply chain has to be lean for internal efficiency and external effectiveness. Whether this can stifle innovation is another question. Considering payroll, he states that

“...there is a limit to how far one can possibly go because ultimately you have strip out as much cost as you certainly can in a legitimate way. Like not taking people and not paying them properly through payroll, but assuming that everything is proper, there is a minimum wage, a minimum amount you have to pay and your business must make a profit.” (Owner-manager, CS3; 18/06/12)

This again is reconciling the learning and growth objectives with the efficient and effective processes which are demanded in the industry. Motivating human resources could lead to new mental models and an artificial *ba* to aid in creativity. Entrepreneurs are out to make money through profits and dependence on the supply chain can be a risky venture. However, it is not possible to stand alone and innovate to serve customers and the community. The owner- manager therefore states that

“...it concerns me that a number of businesses in this industry are ones where you find that several are not operating... just twiddling along; the industry will fare better if they are just flushed out. They are disappearing all the time and it's partly because some people are actually getting older and thinking that well I will just give up now, it's not worth continuing and others are not taking their place.” (Owner-manager, CS3; 18/06/12)

The above suggests a fear that the supply chain might crumble and quality compromised because of the life cycle stage that some of the companies are at. This could impede innovation and damage customer confidence, but, if alert, the SME

can confidently overcome such issues. The market also seems to be saturated and the owner-manager suggests that

“...like a number of other very old traditional industries, this one is a very old saturated market where supply exceeds demand and so we have to be competitive in that particular world.” (Owner-manager, CS3; 18/06/12)

There needs to be some kind of a market innovation to build sales through the offering of better products and services to customers and managing customer relations. This must be linked back to the learning and growth perspective for realignment, as the owner-manager states that

“...with regards to competitiveness in the future, it is about understanding our core capabilities. Technology is important and making sure that we are very flexible.” (Owner-manager, CS3; 18/06/12)

He is confident that the business can be flexible enough through understanding ‘who we are’ and face the future in a positive way. He believes that this can only be achieved through proper communication:

“...here, if something is happening in the market, we will discuss it and within half a day, perhaps an hour, we will make a decision on what we have to do, which will have an impact on how we are going to change. So I think flexibility is a key thing in making sure that we are able to compete and able to adapt very quickly to what is a changing environment and be aware of the changing environment as well.” (Owner-manager, CS3; 18/06/12)

This also suggests a business with absorptive capacity, conscious of its environment in making quick decisions, thereby linking this with R&S. Flexibility is the key in ensuring that businesses are able to compete and adapt very quickly to what is a changing environment. According to this aspect, therefore, operations management and R&S processes rank highest. Innovation and customer management processes are low and need enhancement. However, this corresponds to the statistics on the

association of these aspects with convertibility on all fronts and from intangibles, ideas and transactions on the supply chain (purchases, production, and sales).

The analyses show convertibility of human capital to cultural capital and then economic capital through owner-manager and team experience, competences and basic values and beliefs. The data from the trend analyses show increases of 17.27%, 9.29% and 28.33% for operations management, innovation and social processes respectively from 2007, as shown in Figure 5.10.

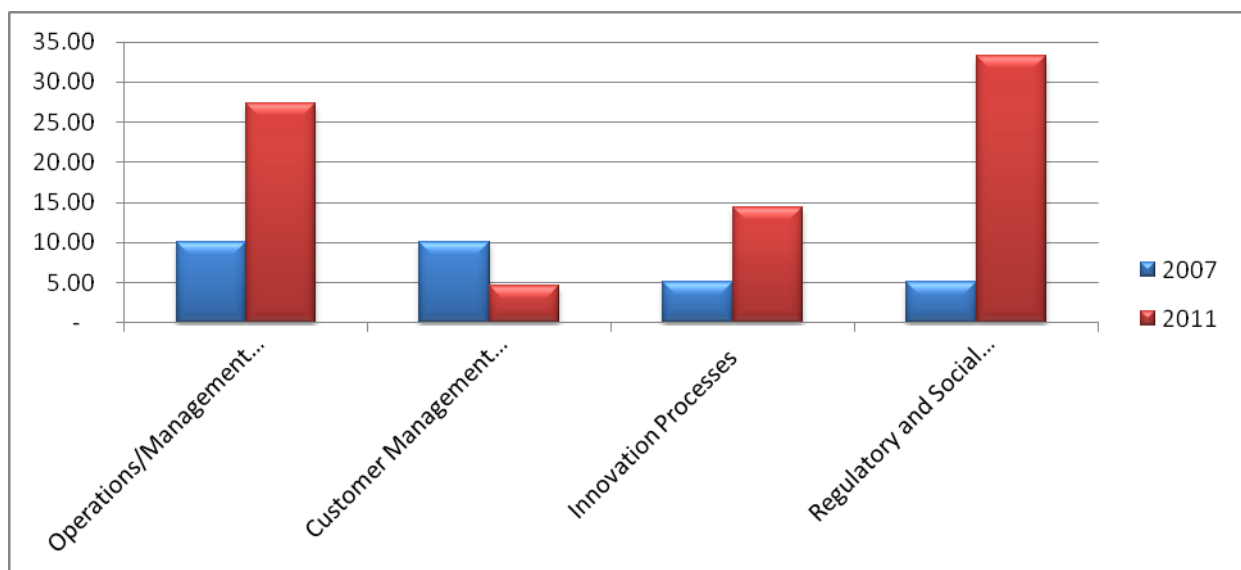


Figure 5.10: Internal process trends for CS3

This therefore supports the significant results showing an association between regulatory and social processes and convertibility, as well as innovation processes and convertibility corresponding to business strength by a tightening of working capital management. There is, however, a deficiency in the customer relation processes.

CS5 shows high levels of innovation and suggests an awareness of its public persona through the perceptions of stakeholders and makes use of this to identify opportunities for exploitation. In contemplating these aspect, the owner-manager of CS5, when considering the supply chain, states that

“...the standard management practices will always be there. Most importantly is effective cash management, because with the changing world, Europe especially, we export direct at the moment 47%, indirectly it could be about 20% - 30% on top of that and so we have to manage our finances abroad. It is not worth going into business if there is a big risk within and analyses need to be done.” (Owner-manager, CS5; 12/09/12)

The risk aspect and the need to tighten the working capital cycle are even more important for businesses that export because of the currency risks which could affect cash flow. Producing in a country with a strong currency like the UK can make competition very difficult, especially for those producing in countries where the currency is weak. The advantage is that they will need to be very innovative in order to compete. Aligning core capabilities with strategy could turn this around. The owner-manager therefore suggests that

“...the key to competitiveness in the future for us is with technologies and projects we go for through our customer and R&D function. That will be our main measure of business success. We do anticipate high turnover and we are hoping to keep to the same gross margin.” (Owner-manager, CS5; 12/09/12)

He suggests aligning information capital with customer management and innovation processes in the conversion of intangibles to tangibles. These processes need careful consideration and identification and, most especially, implementation. The business, however, prides itself on R&D; the owner-manager states that

“...one other thing for us is the R&D projects we undertake, which are the biggest management success we can have.” (Owner-manager, CS5; 12/09/12)

Businesses can continuously build on their innovation and convertibility through absorptive capacity in knowledge transfer partnerships with learning institutions. This has a long lasting effect when new models are translated into practical solutions for

business survival. So while the supply chain may involve tangible aspects, a knowledge supply chain is even more necessary in satisfying customers at a low cost. The owner-manager suggests that the business looks out for such partnerships to align learning and growth perspectives to the internal perspective.

“...we have been involved in various projects with partners and I am on a course at the moment with a university. We have done technical work with many universities and one of the things we have found in the past is breaking the problem link between universities and business and making a project idea work. That is where the difficulty is and we are trying to get around that link at the moment.” (Owner-manager, CS5; 12/09/12)

This suggests a desire to co-produce, and meet business objectives in the best way possible. The data from the trend analysis shows increases of 66.67% and 79.48% for operations management and innovative processes respectively, with a decrease in customer management, as shown in Figure 5.11.

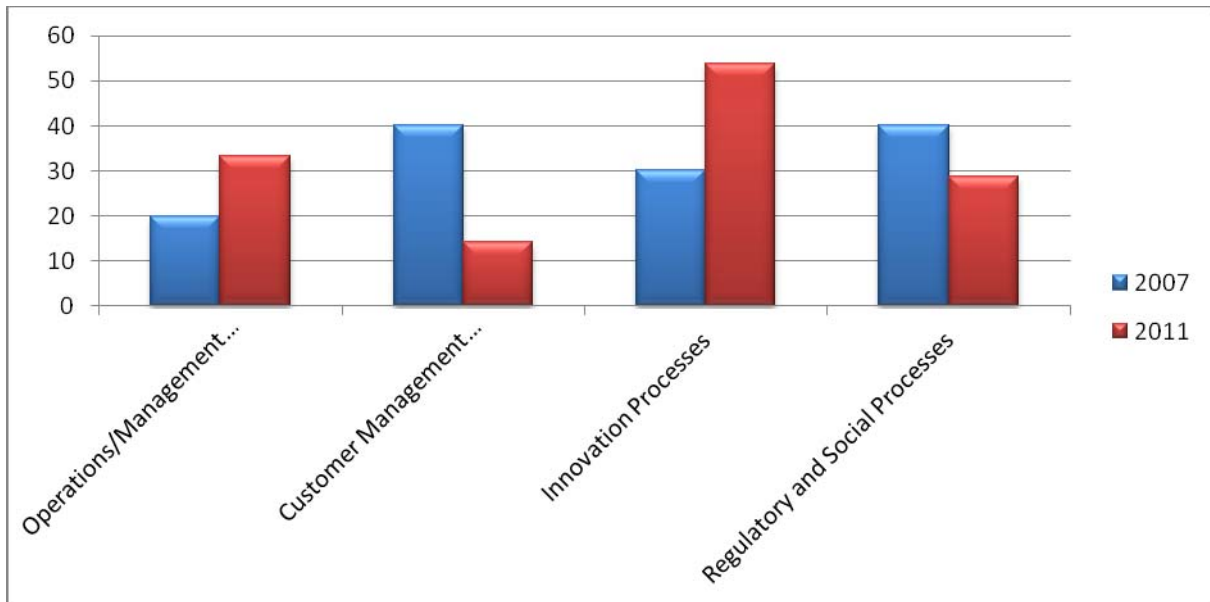


Figure 5.11: Internal process trends for CS5

However, the owner-manager is very keen on regulatory and social processes, as he believes this will make a difference for the company.

5.6.2.2.2 Summary on the internal perspective

The above results on the internal process suggest the pre-eminence of processes in achieving efficiency and effectiveness and successfully converting capital. Noted here are the innovation, regulatory and social processes where economic capital enhances human capital, further improving leading to innovation and customer value proposition to achieve SME objectives. This suggests that the more SMEs engage in innovative activities, entrepreneurial capital convertibility is enhanced from human, social and economic capital and vice versa. The main aspects here are with the identification and management of risk with regard to internal processes and networking with external stakeholders through provision of better products and services for positive business perception.

5.6.2.3 Customer perspective

The various levels are shown in Figure 5.37, with CS5 demonstrating a high level in image and a moderate level in relationships. The remainder are all low for all the businesses. This is the customer interface for convertibility, where all has to be right for the customer value proposition. It suggests the need to understand customers' perceptions through the SECI process and to manage by perception so as to convert the processes from an internal perspective to value, for both the customer and the business.

The customer perspective can also be linked to social capital, which is about *who I know and who knows me*. The question in this area therefore focused on transfer of value in the supply chain to the end user or customer:

“...the competitive world is also changing. The emphasis in the past was on volume of initial selling. To what extent do you think that relationship selling is assuming greater importance?”

In particular, this considers the importance of the customer and the need to continuously develop and align customer management processes with the customer value proposition by taking a more marketing rather than sales view.

5.6.2.3.1 Case studies on the customer perspective

For the owner-manager of CS2, this is the way to go:

“...if I’m being honest, the relationship you have is always 80% of the sales.”
(Owner-manager, CS2; 04/07/12)

This shows the power of building and understanding customers who will stay loyal and therefore reduce the transaction costs reflected in the entrepreneurial capital convertibility processes. With such, the cost of switching suppliers can be high, as time will be needed to select, acquire and start building up trust. In stating this, the owner- manager considers the quality of products and suggests that

“...you can have an average product and sell more if you have good people, compared to a competitor who has a better product but poor people and so we emphasise absolutely that people are going to be right, very important and it’s something we pride ourselves on.” (Owner-manager, CS2; 04/07/12)

However, this does not take the importance of branding or differentiation away. In such businesses, the quality of the service or product is highly scrutinised in order not to lose trust and be a specialist business. Relationships are needed internally before a move to good external relationships. This supports the identification of personality and the work styles of people, as well as those in the supply chain. The trend analysis did not show a favourable picture of the customer perspective, especially in image and relationships, which need to be improved in the supply

chain, and if the owner-manager believes in these relationships, then he must enhance his symbolic capital by all means possible.

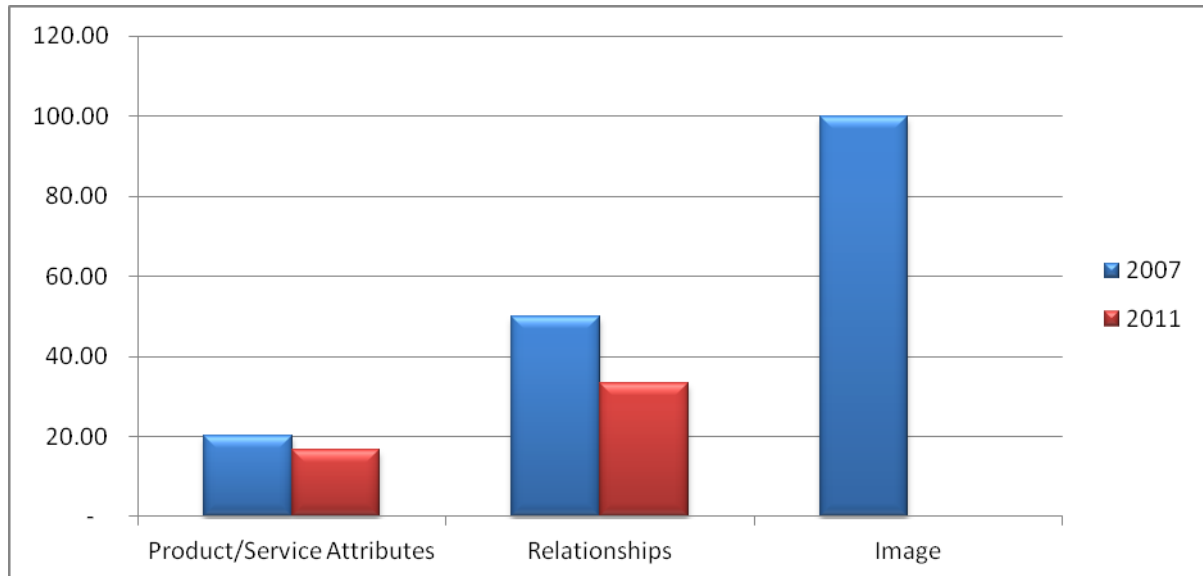


Figure 5.12: Customer Perspective for CS2

As detailed in Figure 5.12, there was a substantial decrease in the customer perspective, with image being the most affected, followed by relations (17.76%) and then product/services attributes. Being in the product leadership spectrum, technological strength is necessary in offering value to customers and having a high end service with premium pricing is required. Normal after sales also becomes imperative.

Even though there is a change in image, it is still less than relationships, which suggests that major work needs to be done in this area for capital convertibility to be more fluid.

On his part, the owner-manager of CS3 reiterates the need for good operations management as necessary for the customer value proposition by suggesting that

“...in this industry, you have to make sure that you get your equipment up to capacity and hence that is why the industry is supply led unfortunately.”
(Owner-manager, CS3; 18/06/12)

This suggests a need to focus more on the demand side, as it shows that the marketing function is not so strong, but rather, that there is still the old belief in sales. However, he goes on to state that

“...developing customer relationships is key in developing partnerships in a competitive whole; otherwise you just become a meter and you say well, you go and speak to them and I will speak to them and if you want something purely on price, there are a lot of people out there.” (Owner-manager, CS3; 18/06/12)

The approach used in developing partnerships which are supply led may be different to understanding customer behaviour. Price is still a winning element, especially in rough times, but it is not the main issue. Customer perception through image or how different you are and how the business aligns strategy with regulatory and social processes is also important in differentiation. The owner-manager therefore reflects on this and explains that

“...we might not be the cheapest but we will offer a little bit more than others. It's not massive, but we are slightly different; it is very mature market and it is very difficult to be different in a saturated mature market because lots of people are very similar.” (Owner-manager, CS3; 18/06/12)

Customers will attach symbolic capital when service/product features are differentiated and it may simply require major market convertibility to reconsider the marketing function and conduct more research and training of customer representatives. The owner-manager is confident that there will be an improvement, saying that

“...customer service here has changed from 2007 to what it is now as we have more people on the phone building relations and a few people out there developing relations, particular the framework around relationships.” (Owner-manager, CS3; 18/06/12)

This is a positive outlook and the data from the trend analysis shows an increase in relationships of 6.74% but a fall of 11.67% for image and 10.65% for product attributes, as shown in Figure 5.13.

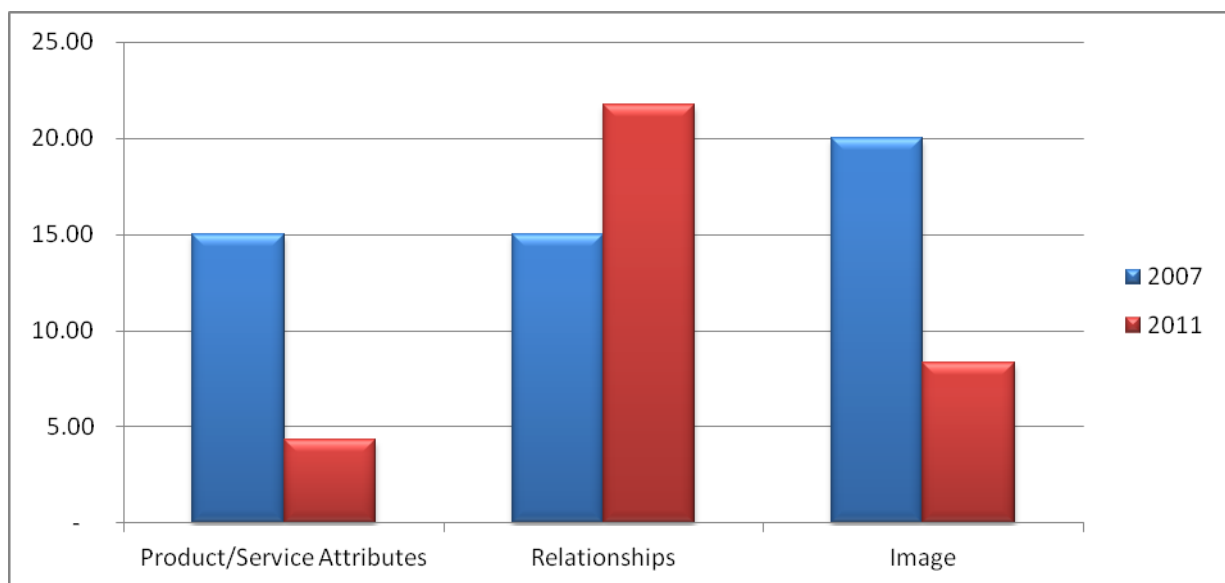


Figure 5.13: Customer perspectives for CS3

The increase in relationships supports the strong knowledge renewal process in knowledge management through the supply chain as well as the information processes through use of the internet, which is significantly related to capital convertibility.

The owner-manager of CS5 tackles this aspect from an international viewpoint, stating that

“...we exported about 47% directly last year and about 20 – 30% indirectly.

Basically, we work with agents. If you are exporting abroad, one of the things

you have to understand is different peoples' cultures and their ways of doing things, because if you have to get into a country to work, you have to work their way." (Owner-manager, CS5; 12/09/12)

This is in an attempt to align culture with the customer value perspective. Understanding the cultures of different people is very important in a global village and this shows that there is at least an attempt to understand customer perceptions in order to add value. Relationships will therefore need to be sustained. He goes on to say that

"...you have to get a working partnership in order for a project to work. For example, we have just taken on a new project in Turkey and it is going well at the moment. We had to do a pro forma invoice for it as we have never worked with them before, never met them before. They are 2000-3000 miles away and you have to have certain principles in place before you can do the work." (Owner-manager, CS5; 12/09/12)

This is therefore a practical demonstration of the value of partnerships in acquiring new customers and suggests a long term view of the aspect. It is related to the operation of producing pro-forma invoices and risk management to match the style of the foreign country and language. With this style, the business is in a position to gain more customers from anywhere in the world, as confirmed by the owner-manager

"...we work with people all over the world. Last time we counted, it was about 47 countries. There are certain different market areas, for example we have agents in the Middle East, France, Germany and Russia, and distributors in the Americas and India." (Owner-manager, CS5; 12/09/12)

These different markets need different brands or services to suit their cultures and the business must regard this as a priority for business strategy. It also suggests competitive astuteness, alertness and calculated risk taking.

“...before we enter a market region, we try to get someone in the area who knows the conditions and cultures of the people we are trying to operate in.”
(Owner-manager, CS5; 12/09/12)

The data from the trend shows a decrease of 10% in product attributes, probably matching the low customer management processes, with a 7% increase in relationships and no change in the perception of image, as illustrated in Figure 5.14.

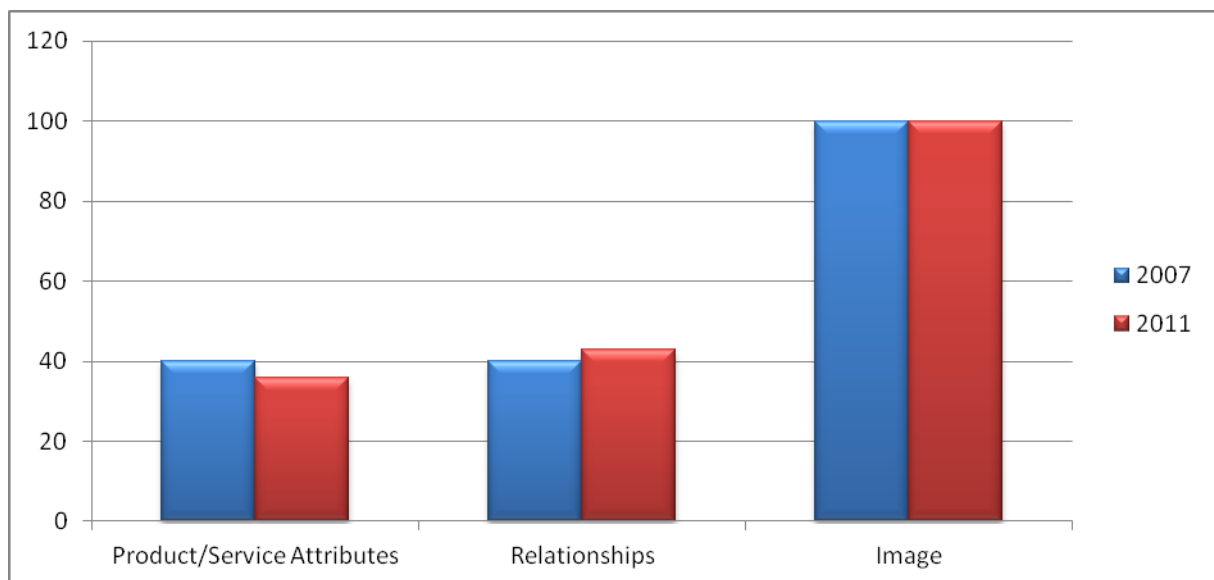


Figure 5.14: Customer perspectives for CS5

They are therefore setting standards in product differentiation in the international market.

5.6.2.3.2 Summary on the customer perspective

Social competence and relationships are necessary for capital convertibility. Processes will need to be changed from culture and leadership to the internal perspective to provide value to customers. Based on the favourable results for processes and culture, these businesses are making headway in the provision of better services and products to their customers to keep up with the changing environment.

5.6.2.4 Financial perspective

The analyses show that only CS5 has a moderate level in the financial perspective. The key word here was strategy, and the question focused on what might the key drive in future strategy be, considering all the intangibles. It was formulated as:

“...often businesses have some key principles driving their strategy. In the recent past these have been things such as quality. What do you see as the next major ‘force’ in defining strategic intent?”

5.6.2.4.1 Case study on the financial perspective

The owner-manager of CS2 focuses on the external aspect first by considering customers’ perception, which is the key for business survival. He states that

“...again talking about our market, it will be flexibility. Yes, there has to be a level of quality, the right people and relationships but to drive the business we have to be flexible in context. For example, there are other companies in the professional football sector that provide various technologies in the sport. We’ve recognised that we cannot be a master of all of this. We have our niche within that sector and what we’ve started to do is to be seen as the open

provider of a platform that embraces other organisations.” (Owner-manager, CS2; 04/07/12)

This is a conscious step to identify the external environment and then look inwardly to try and match or integrate the internal with the external in converting intangibles to tangibles and vice versa for continuous growth. Identifying different needs will lead to a marketing strategy based on differentiation that can satisfy customers better.

“For us a key principle driving our strategy is that we will work with client A who will have different requirements to client B and different suppliers to client B but we can facilitate a platform for both of those organisations to deliver what they need.” (Owner-manager, CS2; 04/07/12)

In such a way, services are innovated in a better way and convertibility takes into consideration customer needs, which can give a global base like that of CS5. The manager therefore explains that

“...we embrace a partner in, for example, the Spanish market and a different partner who does the same thing in the German market. For us to become that flexible platform, we have that key principle driving our strategy and it is recognised that we are specialists in one area; we are not going to lose that and we are not going to stretch out and so for us it is flexibility as the key principle.” (Owner-manager, CS2; 04/07/12)

He therefore stresses the need for flexibility and adaptability in a dynamic environment by understanding strengths and weaknesses and knowing when to seize opportunities and counter any threats.

This is totally in line with a product leadership strategy, where the business strives to continuously satisfy needs and keep customers coming back by understanding cultural, psychological and social norms.

The owner-manager of CS3 believes that

“...quality service and price will always be important and if you haven’t got them, then you are dead in the water as it is an absolute prerequisite.”
(Owner-manager, CS3; 18/06/12)

These areas cannot be taken for granted and must be continuously analysed to identify any trends in them and their effect on customers and others in the supply chain. He then proposes a pro-active nature to attempt to align this with other aspects:

“...anticipation and foresight are probably things that are key and trying to develop a relationship with the customer is key and not just sitting there thinking you want us to do that and you just say you got this to do and we can do this for you.” (Owner-manager, CS3; 18/06/12)

This has to be done in a careful way, by knowing what customers want, knowing what they know, providing a higher level of satisfaction and developing trust in networks so as to reduce costs further, which will provide a good bottom line.

“...rather than just becoming a ‘yes we can do business’, you are actually somebody who is turning around and saying we can actually do more than that, we can actually be part of your organisation, so you suddenly start embedding yourself into that business and suddenly people will turn round and say why do we want to go elsewhere.” (Owner-manager, CS3; 18/06/12)

Embedding a business in a valued network has many advantages, which can reduce the cost of processes and lead to retention of customers, both internally and externally. He goes on to discuss on sales and relates that

“...the tendering process is supposed to be competitive and it develops relationships with the right partners but going through the retendering process again means bringing in a strict paper exercise designed by lawyers to actually go and find out the best people who are going to deliver and develop

the relationships in an embedded way within the business.” (Owner-manager, CS3; 18/06/12)

Transaction costs are reduced by trusting relationships and quality is not compromised. The company is then able to remain solvent into the future because of these relationships and the long term contracts awarded. He underlines this strategic impact by saying that

“...we have worked with these people for 20 years.” (Owner-manager, CS3; 18/06/12)

No matter what the business is, therefore, social capital is necessary for business development and success. In supporting this social capital with a strategic intent, he states that

“...people working in the public sector want close relationships as well so that they can say I can trust these people and I know they can do me a good job; the key thing is just to say let’s ensure we can get the price right. That is a much easier way to do things rather than going through exercises of completing what is a mountain of paperwork which I must say we are good at.” (Owner-manager, CS3; 18/06/12)

The analysis shows a productive strategy where costs are minimised by relationship building. This requires economic capital to build and enhance competition and data from the trend analysis shows an increase from 2007, as seen in Figure 5.15.

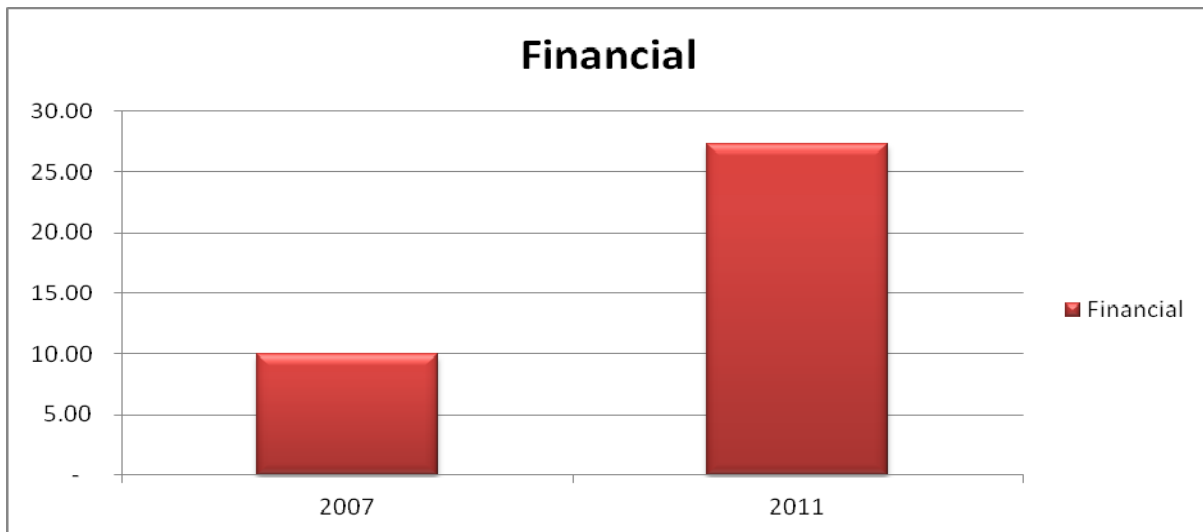


Figure 5.15: Financial perspective trends for CS3

This confirms the statistical support for the financial perspective and convertibility into the various forms of capital at significant levels.

In order to convert intangibles to economic gains, the owner-manager of CS5 suggests that quality remains a driving force in strategy. However, aspects such as regulatory and social processes will play a large part in the customer perception of businesses:

“What we are seeing now is more environmental awareness sustainability, carbon footprints – all linked together- and these are selling points and big drivers for getting into markets. There are becoming not quite as important as quality but they are up and coming and of great importance to us.” (Owner-manager, CS5; 12/09/12)

This is seen in the area of corporate social responsibility, which is very topical in a world where everyone believes businesses should be friendlier to the environment and give back to their communities by treating internal and external stakeholders with respect. Whatever the goals, sustainability is the focus for the business. The financial aspect saw an increase from 2007, as shown in Figure 5.16.

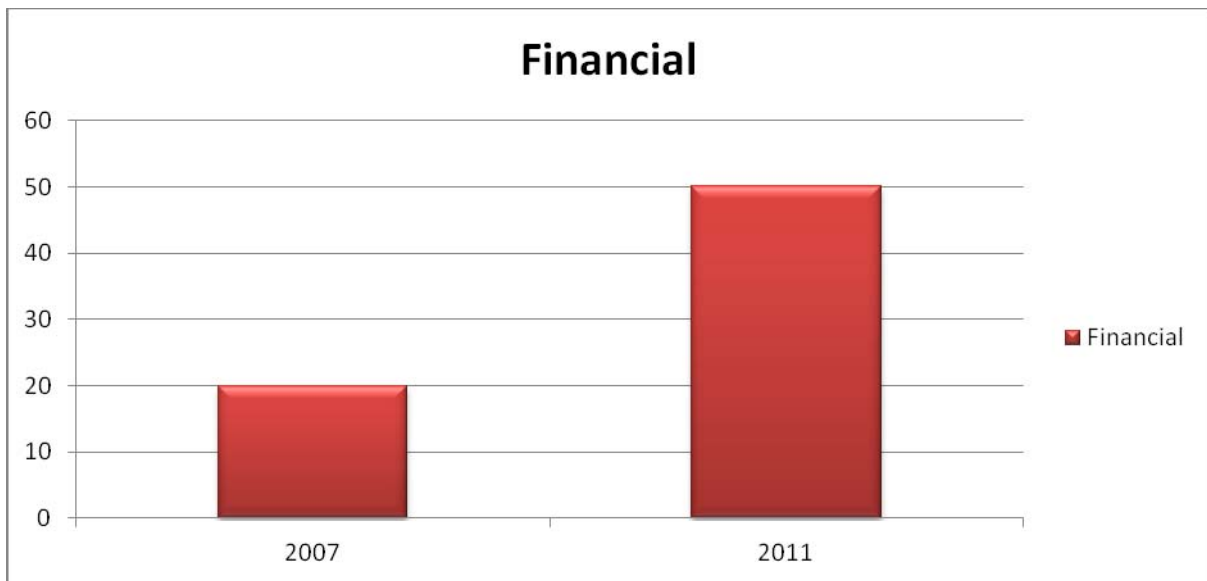


Figure 5.16: Financial perspective trend for CS5

This supports the financial perspective and capital convertibility, which shows a significant level in converting economic capital into social capital.

5.6.2.4.2 Summary on the financial perspective

The analysis show a positive trend in finance for two of these SMEs. This is in line with the statistics that supports use of finance or rewards in improving processes and products, creating more partnerships and new markets and improving on knowledge through the processes of entrepreneurial capital convertibility.

5.6.3 On Design thinking

5.6.3.1 Internal Aspects

CS3 and CS5 spend much time reflecting and organising, compared to CS2. CS2 does not carry out any trial and error when experimenting. They therefore conduct more internal business analysis and planning. However, they show a moderate level of sensitivity, which reflects knowledge of changes in their immediate environment to do with threats and opportunities. These should be reflected in processes, especially innovative ones for effective flexibility and adaptability.

5.6.3.1.1 Case study on the internal aspects

Further analyses show that even though some owner-managers are not thinking about these aspects, they are actually experimenting, as in the case of CS2, whose owner-manager states that his business thrives on flexibility and adaptability.

Analysing the interviews, on a more interpersonal level and considering their reflexive practices, the owner-manager of CS2 states that

“...we spend probably an hour a day talking informally to each other on every aspect of the business, challenging each other and reflecting on various aspects of the business.” (Owner-manager, CS2; 04/07/12)

This suggests a culture of communication through the process of socialisation, originating and dialoguing *ba* in externalisation for the conceptualisation of new ideas. This helps in reflection, experimenting and organising for convertibility. In discussing a development plan, the owner-manager admits that he is not an academic by background but

“...I read lots of books about business and psychology for my personal development.” (Owner-manager, CS2; 04/07/12)

In all, it shows that much time is spent reflecting on and of course digesting information through internalisation. This can be transferred by externalisation or socialisation depending on the circumstances and the needs of the business. CS2, however, shows minimal experimentation and organisation compared to CS3 and CS5.

On another front, the owner-manager of CS3 senses a change in attitudes and ways of doing things in the industry; skills and new blood are important because people are getting older. The firm therefore shows high levels in all aspects, with reflecting and organising coming on top. This shows an adaptive and proactive attitude. He also believes that different sorts of working practices, where people have more time off and a better work life balance, are becoming topical in businesses. This will motivate people and help in achieving business objectives.

Considering personal development, the owner manager in CS3 asserts that

“...I think working with universities, knowledge transfer and working with academic bodies are important because it is useful to reflect, think and exchange.” (Owner-manager, CS3; 18/06/12)

On how these might be supported, he states that

“...I think working with placements, and people coming into business and saying we will work with you, alongside you, and by shadowing, learning will take place for best practice adoption.” (Owner-manager, CS3; 18/06/12)

Learning can take place through experimenting and reflecting on that experience. Learning helps SMEs adapt, become more flexible and builds up confidence for achievement. In sensing and organising, the owner-manager discusses the future by saying that the business is in the process of making a significant investment, with a positive impact on employees.

“...it is about staying ahead of what is going on in the industry, globally and locally.” (Owner-manager, CS3; 18/06/12)

This shows a cautious but very proactive approach to collaboration, as evident in the operational leadership style, where operational strength is emphasised. The business is focused on optimising operational processes in order to keep prices low, but at the same time reliability (of any aspect of the business) does not suffer.

When the trend analysis was incorporated, CS3 showed an overall increase of 40%, with internal aspects of sensitivity increasing by 60%, and reflecting and organising both by 40%. Experimenting received a low score of 20%.

5.6.3.1.2 Summary on the internal aspects

The above suggest that use of internal processes and tolerance of error through experimentation and reflecting on these experiences help in process design and convertibility mainly involving social processes and employee motivation resulting in better customer value propositions. Mental models play a great role in enhancing this aspect through decision making.

5.6.3.2 External aspects

In understanding the general macroeconomic environment and its effect on businesses, objectives, processes, markets and the perception of owner-managers, only CS5 shows a low level. This suggests macroeconomic vulnerability, given that it depends on an external foreign market.

5.6.3.2.1 Case studies on the external aspects

On the external aspect about ways to adapt, the owner-manager of CS2 connects it to the internal aspect of reflection:

“People are very important. In our business, we have a flat structure as best as possible and we are a good group of guys and girls, which is fundamental to us. You have to be a team player and certainly we emphasise where we

have different teams in the organisation that play as teams and not as individuals, which is very important.” (Owner-manager, CS2; 04/07/12)

The internal and external aspects showed no change over time. This shows a moderate analysis of all the various areas, with specific interactions coming out the highest, given that the business is in a personalised football business.

For CS3, more flexibility and customer focus is required, according to the owner-manager, who states that

“...customer focus is key because the customer is king but it does not mean the customer has to say do this and we have to do it because they are the king, but actually being quite strong and letting the customer know what is right. It’s more like working in a partnership with them with options.” (Owner-manager, CS3; 18/06/12)

He praises the business for working with institutions of learning in a collaborative way to enhance growth. These are supported by the significant levels presented in all aspects below, with understanding of the fundamental socio-economic environment the highest. He states that

“...I made 7 redundancies and spoke to my suppliers to go and get extended credit so as to ease our cash position. The thing that prompted me to do that was in 2008 I saw a company which said we see a stormy water coming along and we now got to have our workforce go for a four day a week and I thought I had to take some action and that is what I did and I was the first person in the Midlands to take action. I spoke to some suppliers, which is quite strange and they said you are the first person who has told us this, do you think it is going to be that bad and I said absolutely, I think it is going to be horrible and you can bet it is going to be a 3-4 year problem bearing in mind that we are looking at the amount of GDP. The drop was enormous in comparative terms and even though we do see tiny increases, it’s going to take a long time to get

back to normal, coupled with the fact that you look at the area of the crisis in Europe and the problems we had in the US.” (Owner-manager, CS3; 18/06/12)

This shows that while the owner-manager is reasonably ruthless, he is also very proactive in many ways in order to ensure that the company is in good shape to face future prospects. This confirms risk management and cash management in the supply chain. When data from the trend analysis was considered, it showed major improvements from 2007, as shown Figure 5.17

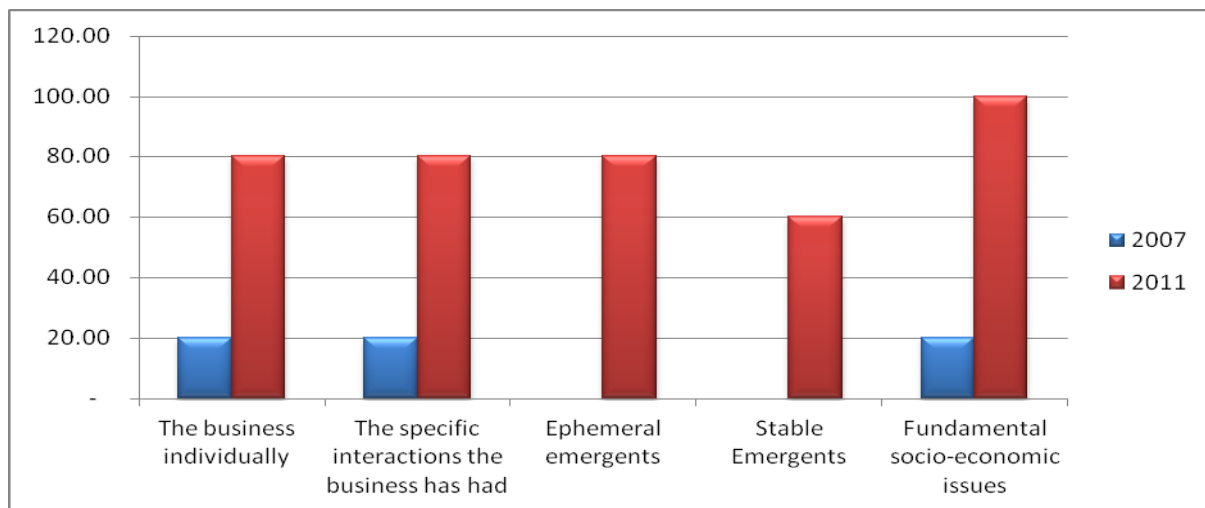


Figure 5.17: External aspect trends for CS3

This also supports the statistics on the business gaining new models and insights from its engagement with partners, which is significantly associated with the convertibility of economic capital into social capital. Sensing and understanding fundamental socio-economic issues is top of the list. Work being carried out by the business individually supports the statistics on convertibility. The trend analyses also showed a constant over the period.

Externally, the business used more ephemeral and stable emergent frameworks, reporting an increase. This is in line with the statistics on the individual thinking of the

business in carrying out business which is associated with capital convertibility from economic to social capital at significant levels.

The owner-manager of CS5, while considering the general environment and need to adapt, states that

“...environmental consideration, sustainability, carbon footprints are important but another is the possibilities of the 24/7 ICT aspect because we basically have Blackberries on which we can read emails. You never really switch off from it and I think it will become more and more as a driver in the future as well. Personally, I think the world is getting faster, I think the country is getting faster and the pace of life. The more you can keep up to date with it and manage it effectively, the more avenues you have to effectively manage business.” (Owner-manager, CS5; 12/09/12)

Accepting that technology will play a major part in business, he also shows awareness of social responsibility and its effects on business objectives, especially in relation to this business, which carries out cross-border activities.

5.6.3.2.2 Summary on the external aspects

The above results suggest that these businesses also make use of their mental models and absorptive capacity in gaining new knowledge from their partners when they interact. This leads to a cycle of continuous experimentation and reflection to produce new concepts for use in products and services in order to satisfy their customer bases.

5.6.3.3 Summary for cases suggesting convertibility at a high level

Table 5.3: Summary for cases suggesting convertibility at a high level

	Knowledge Management	Strategic Thinking	Design Thinking
CS2	Strategic/Planning	Technological	Reflective
CS3	Strategic/Planning	Reactive	Experimentative
CS5	Strategic/Planning	Technological	Reflective

From, the analyses carried out on knowledge management, strategic thinking and design thinking, it shows that businesses suggesting convertibility at a high level fall into particular categories of business process and thinking as discussed by Sparrow (2001). From table 5.3, all the SMEs fall into the strategic/planning phase, CS2 and CS5 have a technological focus for strategic thinking while CS3 suggests a reactive posture. In design thinking terms, CS3 is more experimentative while CS2 and CS5 consider reflective processes. A combination of these show these SMEs are high in learning, creativity and innovation, ICT, understand and use processes, especially work flow and R&S, have a culture of calculated risks and focused on generating high revenues through expansion of markets.

5.7 Cases suggesting a low level of convertibility

5.7.1 On Knowledge Management

5.7.1.1 Knowledge in use

5.7.1.1.1 Knowledge base

These SMEs included CS4, CS6, CS7 and CS8.

On knowledge bases, the relative strengths that CS4 and CS7 have are in the areas of purchasing and finance, suggesting that they may need to develop workflow and sales processes further. CS6 and CS8 have strengths in sales and workflow processes, implying a need to develop finance and purchasing operations further. CS6 and CS8 therefore suggest a focus on customer relationships, producing sales which should be converted into cash. The 'internal' aspects of business operations have to meet the challenges of effective external dealings. This entails a productivity strategy for CS4 and CS7, as well as a mix of strategies for CS6 and CS8. While the latter seem to be chasing high sales, they show more focus on average in managing fixed and variable costs.

5.7.1.1.2 Kinds of knowledge

CS4, CS6 and CS7 have undertaken a moderate level of analysis of the roles that different kinds of knowledge play in the work of individuals. CS8 has undertaken a high level of analysis of this aspect. It also indicates that it has analysed the role that some of the most subtle aspects of knowledge play in performance more extensively than those of personal understanding and personal experience.

5.7.1.1.3 Forms of thoughts

CS4 and CS7 report a moderate appreciation of the knowledge they have, the value of this knowledge and its needs. The appreciation of the role of knowledge within the SME is important and businesses may want to consider means to communicate its value. Moderate use is made of verbal and non verbal information, suggesting a balance between tacit and explicit knowledge in terms of knowledge conversion. CS6 and CS8 have undertaken a very high level of analysis of verbal and non verbal aspects.

5.7.1.1.4 Types of thinking

It seems that these businesses have undertaken a high level of analysis of the roles that different types of thinking play in people's work.

5.7.1.1.5 Knowledge recognition

The responses of CS6 and CS7 suggest a very high level of appreciation of the knowledge they have, its value and their knowledge needs, while CS4 and CS8 show a moderate appreciation of this.

5.7.1.1.6 Summary on knowledge in use

These businesses have strength in purchasing and finance thereby suggesting strength in internal processes and supplier relationships, which may be more backward compared to those at a high level. They all, however, show less than average scores in all aspects in this area. This further confirms owner-manager thinking for SMEs converting at a higher level in revenue growth strategies, against asset utilisation for those at a low level.

5.7.1.2 Knowledge systems

The report suggests that the knowledge systems of CS4 and CS6 are at the same level as the industry standard and therefore continuous reviews should be carried out. However, comprehensiveness and accessibility are very limited.

5.7.1.2.1 Features of knowledge

In knowledge systems, CS7 and CS8 show high levels of ICT adoption in comparison to CS4 and CS6 but that they need to consider whether other SMEs might have approaches that could underline competitive advantage. The usefulness of the knowledge that is available to workgroups is reported at a high level. Developing the capability of human resources is a key to future competitiveness and they should consider developing a system to record the knowledge, skills and experience of staff. Additionally, they may consider means to make staff interact and talk more about areas of knowledge that they have and previous experiences.

5.7.1.2.2 Knowledge location

CS4 suggests that it has managed to create business processes and practices that are the product of many years of experience. CS6's knowledge system may not be particularly efficient for this business and knowledge that could be useful to others. It may want to consider also how to organise information and accessibility. As more and more knowledge is captured and embedded in systems, security becomes increasingly important. The owner-manager of CS8 feels that the SME manages to take advantage of the contribution of ICT to capture, store and transfer knowledge more effectively than others in its industry.

5.7.1.2.3 Summary on knowledge systems

The results show that these businesses have an advantage in both explicit and tacit knowledge over those at a higher level. Explicit knowledge, however, shows a higher

level, but it is necessary to establish the reason why they are not thinking of convertibility. It could be that they are at a stage of perceived knowledge saturation. Those at a high level could prize their tacit and explicit knowledge, as reflected in the people, work teams and the owner-manager, and use this to their advantage. They also display a higher level of thinking in all aspects compared to those at a higher level. The question arises, however, of whether these thinking processes are translated into explicit and tangible aspects in the real sense.

5.7.1.3 Knowledge renewal

SMEs suggesting low convertibility report that knowledge renewal capability is the most developed knowledge management practice. The processes that support knowledge creation and flow can achieve a great deal for an SME. There is a need to understand the specific role of knowledge-in-use, the knowledge system and management capability in order to benefit from developments in knowledge practices.

5.7.1.3.1 Learning sources

CS4 and CS7 report the use of reasonably extensive alternative sources of learning and also need to consider whether and how they review their use of these sources, especially customers and suppliers. CS6 and CS8 may be able to learn more from customers by considering a questionnaire about customer use of products or services, customer satisfaction interviews and focus groups. They might consider what possibilities there are in light of planned developments for suppliers to take up some of the activities they used to do, as well as gaining advantage from their capability.

5.7.1.3.2 Learning processes

These businesses report the development of some effective processes to secure learning and need to consider how they can target further development of best practice networks, benchmarking and communities of practice. They appear to have

developed some effective means of achieving internal dissemination of good practices. CS6, CS7 and CS8 make moderate use of self developing communities, compared to CS4.

However, only CS8 is making good use of best practice networks and performance indicators. They all may need to consider the means through which their business could identify shared concerns. CS8 has developed some work teams to engage in on-going learning and development. There are a number of tools that teams can use to aid their reflection and learning and they could consider whether they have developed some systematic practices that other teams might value.

5.7.1.3.3 Learning and evaluation

These businesses report some developments in coaching and mentoring practices and need to consider how widespread they are, whether they are formalised and whether there are any needs for training/support. CS4 may wish to consider developing systems to review individual, task, work team and organisational learning. CS6, CS7 and CS8 appear to have also developed some effective means of achieving internal dissemination of good practices. They may consider the scope of systems, whether they identify aspects of individual, work team and organisational learning throughout the organisation and how they support the strong desire to innovate and change.

5.7.1.3.4 Summary on knowledge renewal

In line with good relationships with suppliers, they suggest higher level of learning from suppliers, as well as partnerships and best practice networks. They might just be focusing on the past and incurring more costs rather than thinking about the customers and trying to know them more. They make more use of self-developing communities and best practice networks compared to those at a high level, suggesting a more backward supply chain view.

5.7.1.4 Knowledge economy management

The responses suggest that this is an aspect that CS4 has considerable concerns about. It rates the organisation's competence in this area lower than all of the other three. If it cannot commit to a major strategic analysis of the implications of a knowledge economy, it may want to attempt some improvement in key areas. It needs to look at the opportunities and threats in knowledge terms that it understands the best. CS4 could choose a knowledge project that lets it change practices to meet the needs identified with the capability that it has. The responses suggest that this is an area in which CS7 and CS8 are less developed. They rank third in the listing of assessing knowledge-in-use, knowledge system, knowledge renewal and knowledge management capabilities. It is necessary to look at the profile of opportunities and threats that they have analysed and the 'abilities' to change.

5.7.1.4.1 Summary on knowledge economy

The results suggest that these SMEs are more reactive to an increasingly market economy. They seem the least prepared to understand the knowledge economy but suggests a higher level of adoption of new ways of doing business, which may be connected to best practice networks. The question is whether their customers are in favour of these, considering the industry in which they operate. The focus may be on internal backward supply chain processes, which may not be value adding. While showing the lowest level of development of ICT, these suggest a need for change management.

5.7.2 On Strategic Thinking

5.7.2.1 Learning and growth perspective

CS4 shows a high level of human capital compared to the others, which are low. However, CS7 shows a small increase in organisational capital. Using the key words again here, values were reflected rather than practices in terms of the word 'think', compared to businesses converting at a higher level. The questions were then followed in order to gauge thinking on strategies based on the strategic map.

5.7.2.1.1 Case Studies on the learning and growth perspective

In relation to the first question, the owner-manager of CS4 is more concerned about his vision and how it relates to the business. In his opinion, it involves discussion with the management team to understand which part of the vision each is responsible for and then to provide them with the resources to carry out their roles, signifying originating *ba* through socialisation.

From this aspect, human capital showed a high level compared to the other SMEs. Motivation seems high but a question of alignment with strategy needs to be taken into consideration in terms of organisational capital. The data from the trend analyses show that at this level, human capital increases substantially, with a minimal increase in information capital and a minimal decrease in organisation capital, as shown in Figure 5.18.

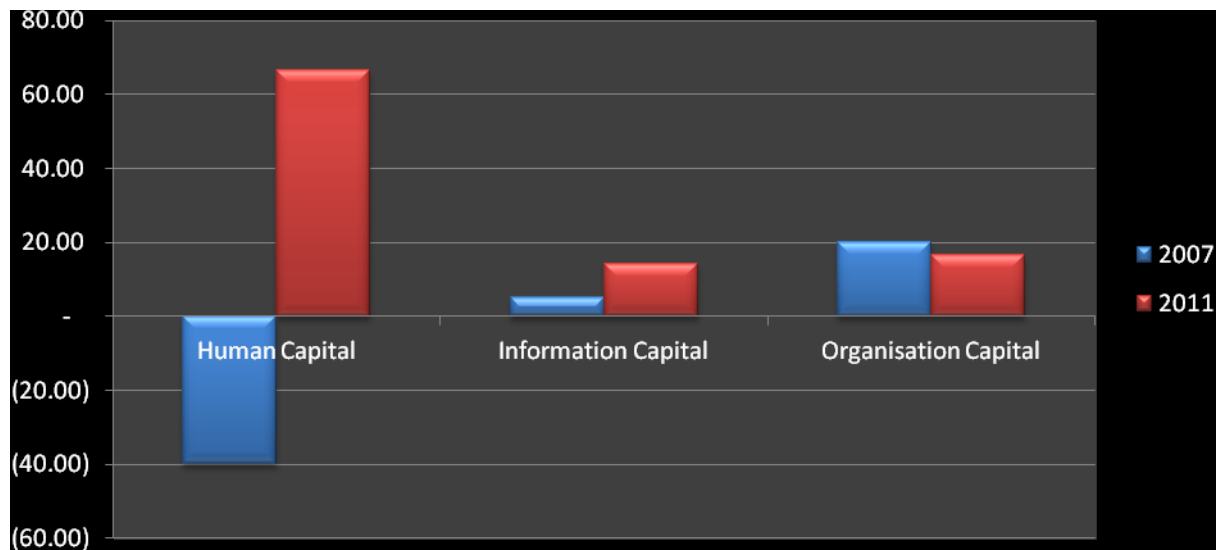


Figure 5.18: Learning and growth for CS4

This supports the association of information capital and capital convertibility and also the balance between explicit and tacit knowledge in CS4. The increase in human capital could be attributed to the use of finance to learn. New people, as well as new learners, will have to link theory and practice by using a learning curve and also adapt to the culture of the organisation, which may therefore explain the slight reduction in organisational capital.

The views of the owner-manager of CS6 concerning *who I am* and *what I dare* show a more participative approach to business and he totally avoids the words 'ruthlessness' by stating that

"...managers need to head up the team but allow people to develop themselves. They should provide support and act as enablers because the biggest asset any company has is the people who work for them." (Owner-manager CS6; 08/08/12)

Managers should be more like enablers and trust their team to carry out the right duties in originating *ba*. This could lead to motivation and increased levels of entrepreneurial capital convertibility. From the trend analyses, strategic thinking

shows a decrease, with negative organisational capital, suggesting a lack of alignment of resources with the business objectives in all aspects, as shown in Figure 5.19.

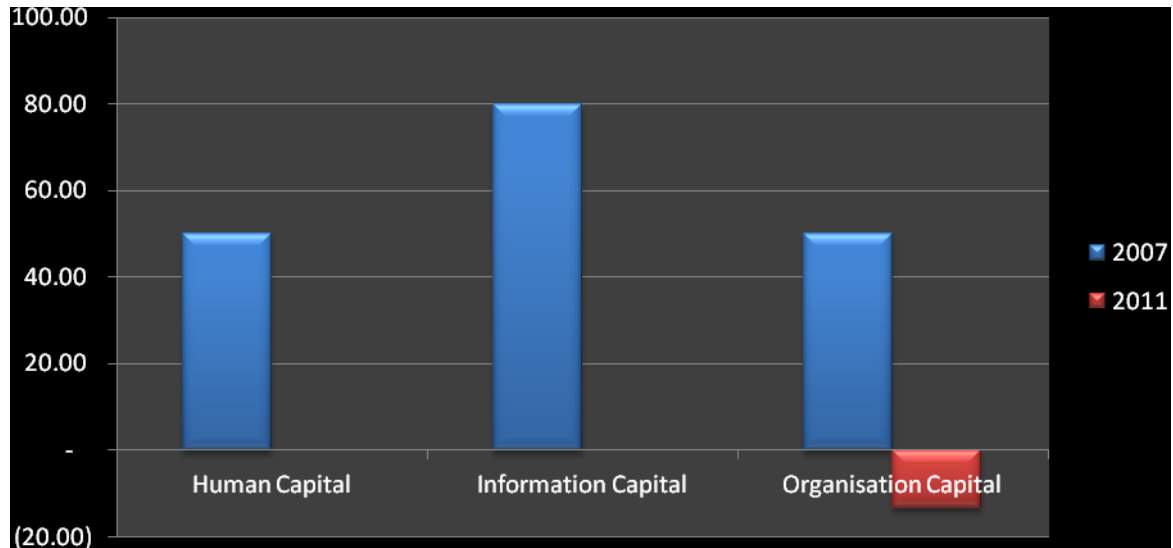


Figure 5.19: Learning and growth for CS6

This may suggest that CS6 needs to take a grip of most situations, probably by changing management style. Considering that the owner-manager is thinking of retiring, there is the possibility of a reactive stance and unless a successor team is arranged, there is a danger of business failure.

Concerning the views of the owner-manager of CS7 on *who I am* and *what I dare*, he states

“...I think a combination of things. You need to have an element of ruthlessness but what you are trying to achieve is that you rely on your resources effectively to make sure that things happens and I think you need to have a degree of empathy with your staff in terms of what their needs are.”
(Owner-manager CS7; 23/07/12)

By this, he is suggesting the need to appreciate organisations as social constructs, in which people have different visions that have to be blended into the organisational vision, and to create a context for socialisation. This goal congruence is necessary for work team motivation, but in an increasingly diverse society there is bound to be some conflict over these visions, which could also lead to creativity and conceptual knowledge if managed well. The owner-manager then links this aspect with regulatory and social processes by suggesting that:

“... I think the ability to address their needs and that of the wider community as well are important attributes in modern business as it is not just your business but you have to think about the context in which you operate.”
(Owner-manager, CS7; 23/07/12)

This again is related to corporate social responsibility, which is statistically significant to convertibility by the change in culture and the embedding of concepts into systems. This is further emphasised when he continues by saying that:

“...one of the things we are keen on is that people do some charitable work as well as work within the business.” (Owner-manager CS7; 23/07/12)

Considering the trend analysis in Figure 5.20, there is a minor increase in information capital, which may reflect values, but a satisfactory increase in organisational capital to show the alignment of a participatory leadership vision, culture and teamwork to regulatory and social processes.

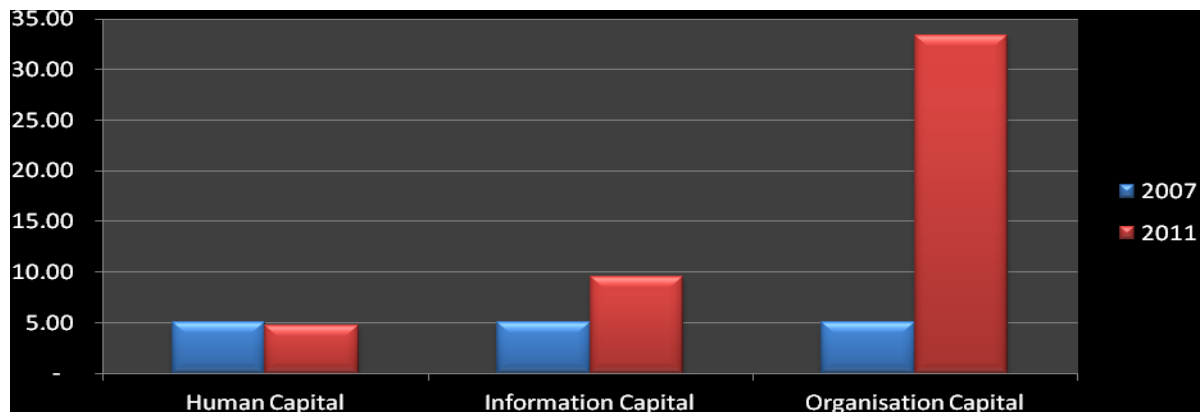


Figure 5.20: Learning and growth for CS7

This suggests a mix of leadership styles. However, the organisational capital element shows a leaning to a particular style.

For the owner-manager of CS8, it is no longer about management, but about leadership. According to him, old management is changing fast and if people are motivated, then businesses can achieve more.

“...if you can lead people and motivate them, then you can achieve miracles.”
(Owner-manager CS8; 28/08/12)

To achieve such miracles will require management by perception. In an SME, the owner-manager is central to every activity and time management is therefore very important for success.

For him, therefore, more management is going to disappear and leadership will become more and more prominent and will be central to how people are motivated, how they become engaged and how they take responsibility for their own actions. Those companies that do not recognise this will go out of business.

According to the trend analyses, human and organisational capital are at same level and information capital witnessed a slight increase, as shown in Figure 5.21.

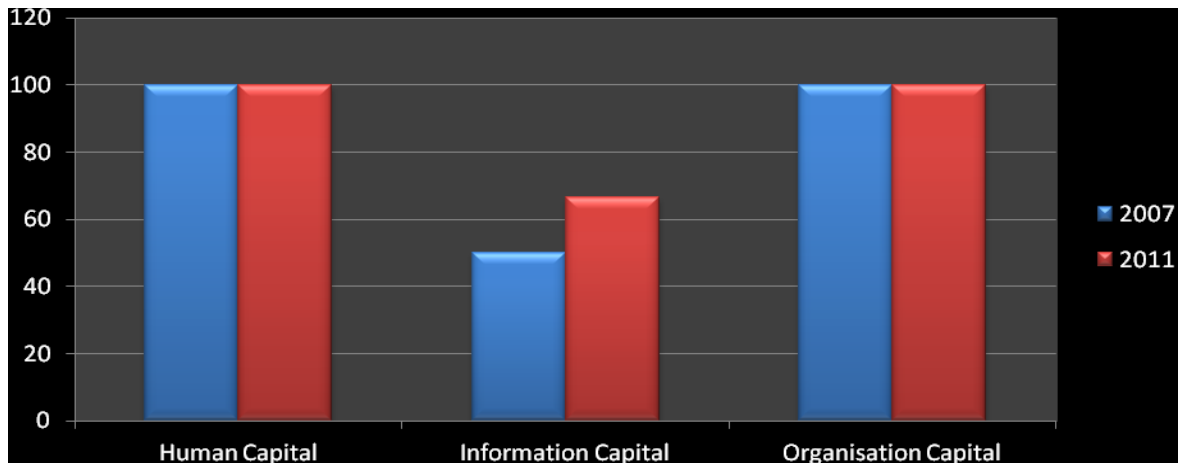


Figure 5.21: Learning and growth for CS8

Knowledge is therefore externalised in this case, which could be due to motivational factors for work teams to perform better in times of crisis in the general economy. With this in place, there must be alignment to the customer value proposition in order to continuously convert entrepreneurial capital and achieve business objectives.

5.7.2.1.2 Summary on the learning and growth perspective

The statistics show that information and organisational capital are positively related to convertibility. They show a high degree of knowledge held in intellectual property, which may suggest future benefits. These businesses show a lower average for organisational and information capital and more on human capital. The technological aspects need to be refined and redesigned

5.7.2.2 Internal perspective

Innovative processes are low for all these businesses and there is a slight but below average increase in regulatory and social processes for CS7, as well as the same level of operations management processes for CS4 and CS7.

5.7.2.2.1 Case studies on the internal perspective

Concerning *what I know and what I can do*, the owner-manager of CS4 was clear that it is first about understanding the market you are in, what the market requires from you and how you can provide products and services better than competitors. When the trend analysis was considered, the internal perspective shows a low level. CS4 trend analysis showed no change in regulatory and social processes, a substantial decrease in operations and customer management processes of 50% each and a decrease in innovation processes of 14.62%, as shown in Figure 5.22.

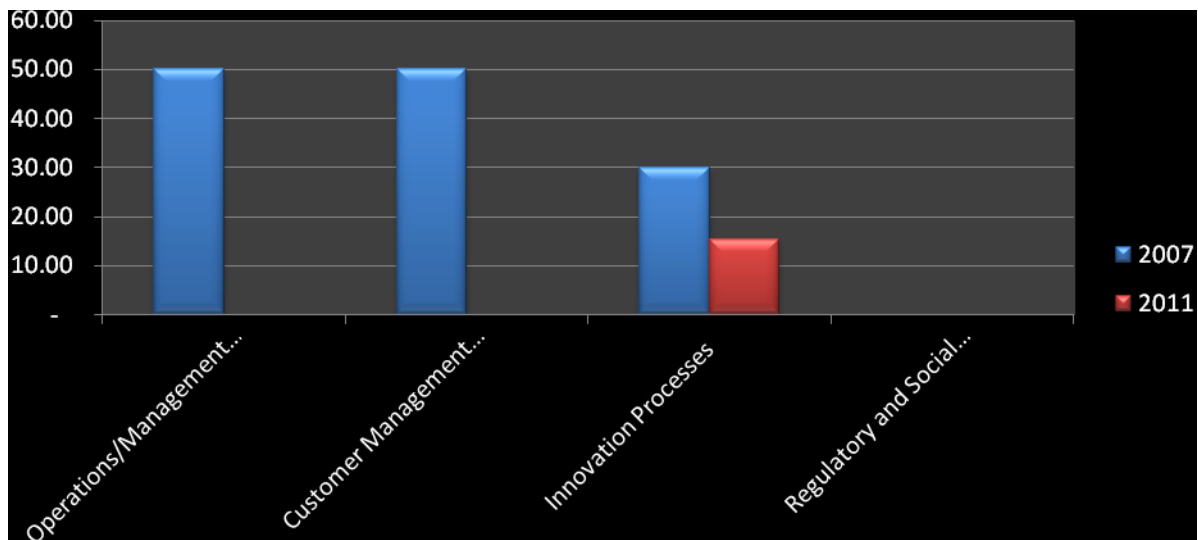


Figure 5.22: Internal process trends for CS4

According to the owner-manager, the company has just been taken over and it could take some time for alignment to take place, as processes will have to change and, most especially, variables based on the learning and growth perspective of the balance scorecard. CS6 is high in its operations management, with room for improvement. In answer to the question on this aspect, the owner-manager said that cash and risk management do not make businesses successful, but are always needed and must be controlled. In her opinion,

“...the main thing that makes a business successful, depending on what kind of industry you are in, is the knowledge that you have and are willing to give to your customers, the advice and support you provide to customers, and building relationships and trust; it’s not just about price.” (Owner-manager CS6; 08/08/12)

This shows that she relies totally on her team to create a community to make things happen in the business, as suggested in the first question, and her focus is on customer retention in a community of practice. In discussing internal processes and their effect on the market, she states that

“...I know from experience that our products are not the cheapest and are not the most expensive either but what we do is we get it right and that’s what is important as we are reliable. If we say we will do something, our customers know we will deliver; if we can’t, we tell them we can’t. It’s that honest and I think that has a lot to do with it.” (Owner-manager CS6; 08/08/12)

In the owner-manager’s opinion therefore, once this is in place, the other aspects of cash and risk management will be more secondary, even though they are still important. It may link to the element of trust in people and the need to give them the benefit of doubt. This, to her, is extended along the supply chain and so minimises risk in keeping operations going, staying close to customers, looking for new ways of doing things and aiding the environment. However, as stated, there might be missed opportunities in a dynamic economy.

The trend analyses suggest that there were increases of 20% in innovation processes, while operations and social processes witnessed decreases of 11.43% and 20% respectively, as shown Figure 5.23. Teamwork therefore shows creativity which is still immature and internal, following the concept of a community of practice where boundaries need to be broken for convertibility along the supply chain.

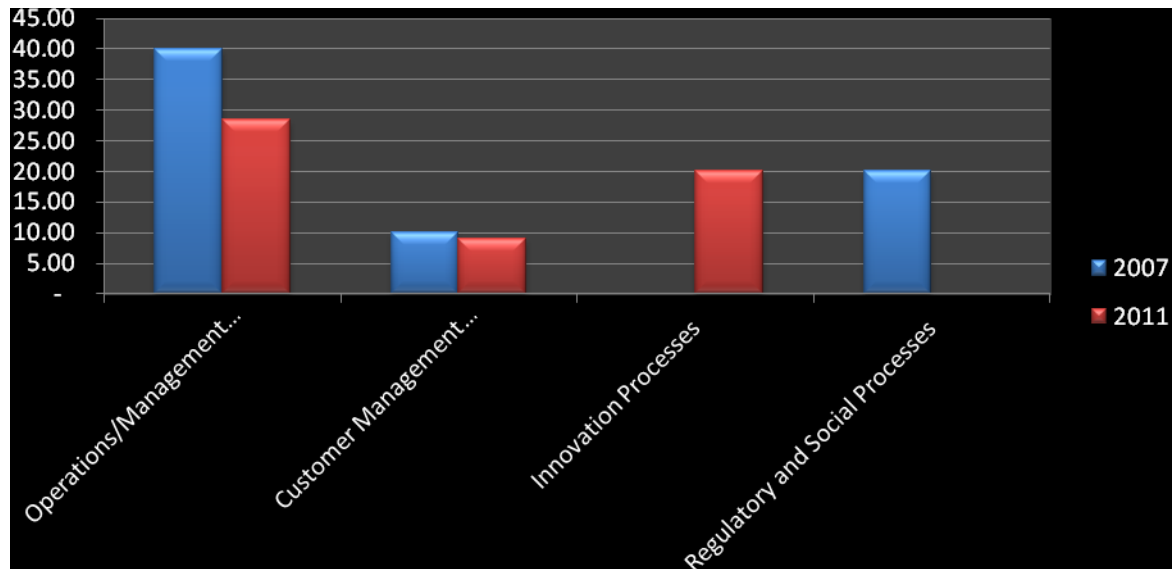


Figure 5.23: Internal process trends for CS6

This therefore corresponds to business strength, with key components of management commitment, the company's mission and policies, availability of funds and capital representing convertibility of human, cultural and economic capital respectively. The owner-manager of CS7 considers in particular the customer relation processes and suggests that customer perception is necessary in order to convert intangibles. He states that

“...knowing, understanding and being able to work with your customers effectively is what it's all about, as you have to be in tune with what your customers want. If not, you won't be able to succeed.” (Owner-manager CS7; 23/07/12)

In dynamic times, customer perception might be different when it comes to the differential between needs and wants and if businesses could understand this, then convertibility and sustainability can be assured. Dialoguing *ba* will aid in concept formation and decision making for changes in routines. However, he accepts that the key processes in dynamic periods are necessary, stating that

“...interestingly, cash and risk management are necessary, but customer engagement is key.” (Owner-manager CS7; 23/07/12)

In most cases, businesses will want to see revenue before they start thinking about efficient processes. The trend analysis, however, show increases in operations and innovation management, apart from that of revenue generating in customer management processes, as shown in Figure 5.24, which raises a paradox. It could also be that the other processes are improving at the expense of customer ones so as to keep the company afloat.

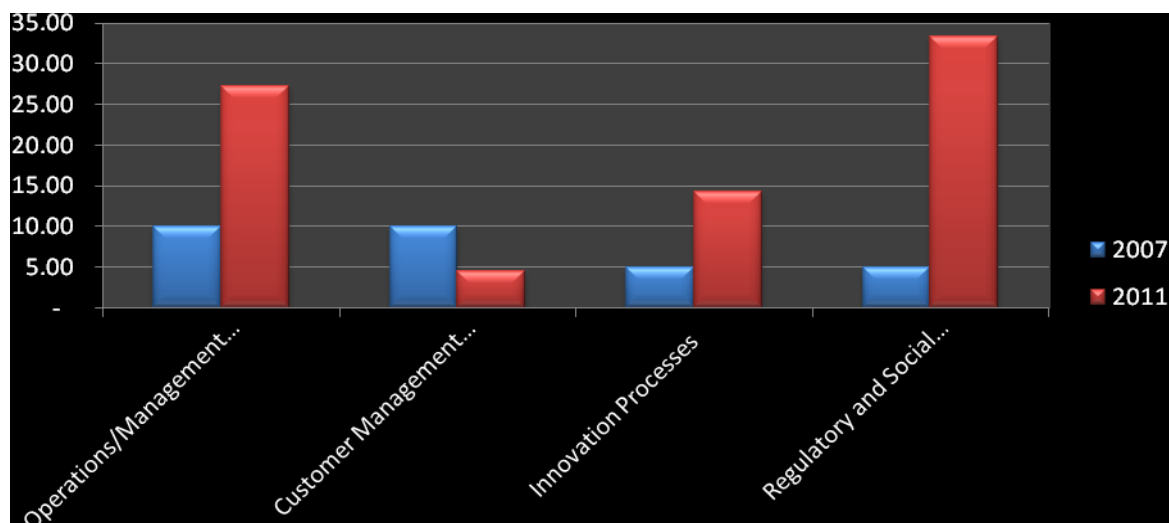


Figure 5.24: Internal process trends for CS7

The owner-manager of CS8 is very particular about the main aim of the business, stating that

“...certainly for a small business, cash flow is still absolutely critical in managing the day to day operations.” (Owner-manager CS8; 28/08/12)

Without cash, businesses would not be able to meet short term obligations, which could reduce trust and damage relationships in the supply chain. He goes on to suggest that businesses can only produce this cash flow if there are customers. SMEs, as opposed to larger businesses should therefore not get tied up in internal processes to the detriment of building relationships with customers: He therefore suggest that

“...the most important thing in business is to get new business and it is an issue for small companies more so than big ones. It’s about balancing the future and the present.” (Owner-manager CS8; 28/08/12)

He goes on to suggest that technology will be the game changer in many respects for SMEs, as suggested by a significant association between the internet and convertibility in the statistics. However, SMEs rely more on their people rather than on technology and so people will come first.

“I think technology has a very big role to play, but technology is a tool. It is not the core of a business. Small businesses tend to depend on people and people are the core that drives the business and the people will make the business survive or die. But technology can support it and help realise lots and lots of opportunities.” (Owner-manager CS8; 28/08/12)

In so saying, he is aligning knowledge in use to knowledge bases in business success and survival, which are all associated with entrepreneurial capital convertibility. In addition, trust is implied and a participative style evident, where people are given the chance to contribute to decision making, though with the associated limitations.

The trend analysis did not support knowledge of day to day aspects as it shows no change in the operation management process and a fall in customer management and regulatory and social processes, as shown in Figure 5.25. However, innovation processes show an increase, which must be aligned to the other processes to increase return on capital.

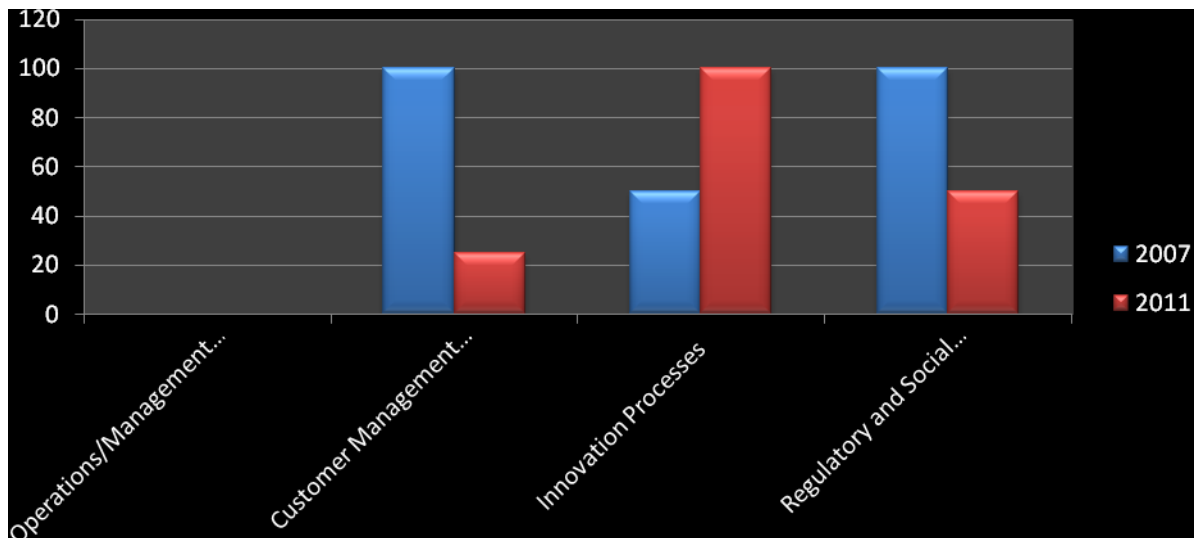


Figure 5.25: Internal process trends for CS8

5.7.2.2.2 Summary on the internal perspective

From a lack in ICT and less organisational capital, processes which aid in convertibility as suggested by the statistics like innovation processes are less developed and therefore need improvements to meet up with customer value proposition as compared to the businesses suggesting convertibility at a high level. In regards to ICT, it could aid the development and the preservation of organisational knowledge sourced from corporate culture and work practices and designed with knowledge management and organizational capital to meet business objectives.

5.7.2.3 Customer perspective

In this area, CS8 shows a weak level, while CS4 shows a moderate level in relationships and images and CS6 a below average level in these aspects. CS7 has a below average level in relationships.

5.7.2.3.1 Case studies on the customer perspective

Answering the question on this aspect, the owner-manager of CS4 believes that the future is about knowing what customers want by understanding the niche market, concentrating on the niche and understanding what other niches offer by some kind of road mapping. He explains that it is about

“...understanding customers’ vision and expectations and managing the expectations in order to provide better services and meet the terms of the business model.” (Owner-manager CS4; 09/07/12)

This shows an attempt at customer perception, which could save considerable resources in terms of time and money for an SME. Relationships are not greatly emphasised in attaining a state where the customer value proposition yields more than satisfaction and meets the business objectives. In a dynamic environment, understanding customer perceptions and the symbolic value they have to products and services as well as the business is a winning strategy.

The trend analysis therefore indicates that CS4 has increases in image, relationships and service attributes of 90%, 70% and 10% respectively, as shown in Figure 5.26. It is possible that there may be some kind of complacency here, as CS4 shows less convertibility.

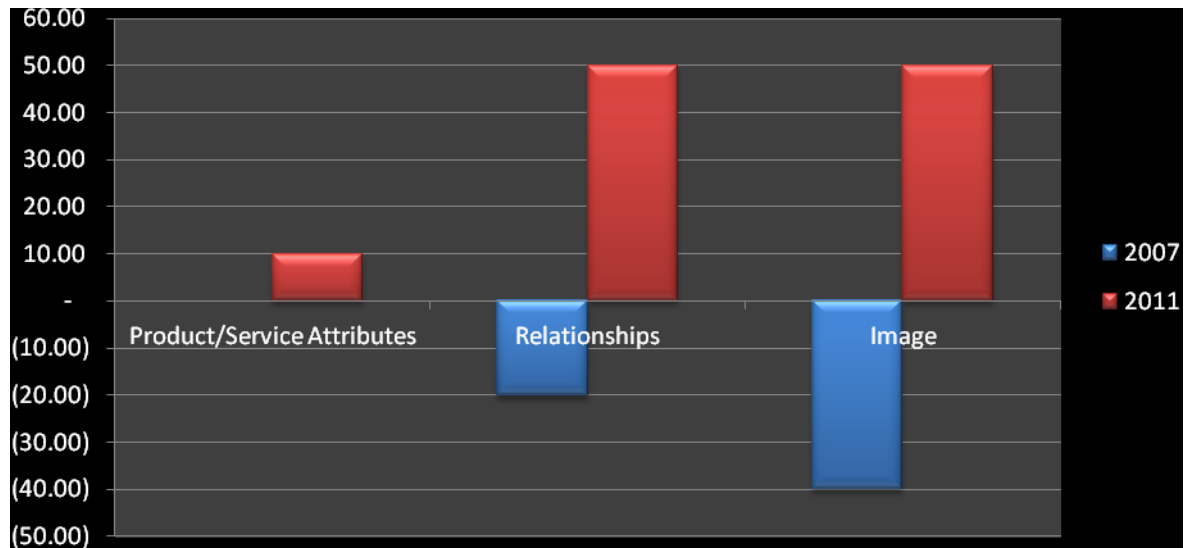


Figure 5.26: Customer perspective trends for CS4

This may suggest a revisiting of processes to ensure that everything is aligned with the goals of the organisation.

On the other hand, the owner-manager of CS6 confirms his trust in the supply chain and in teams and asserts that

“...I think relationship selling is why we are so successful as we are friends with our customers. The people who work in our offices that are in day to day contact with customers are trained and encouraged to build relationships and it is hard to move away from someone you consider to be a friend, someone they are comfortable with. I think relationships are the way to go and that is what we build our company on.” (Owner-manager CS6; 08/08/12)

The appeal of this is that of customer retention, but a question could be asked as to whether the business is being proactive in gaining new customers. The cost of inputs for transformation increases with time, as well as salaries and other expenses. It needs to be asked if the current customers will be a lifeline in the future to cover these increasing costs.

This therefore corresponds to the customer intimacy strategy, where the company is customer driven. The trend analysis, however, shows a substantial decrease in the customer perspective (15.98%), with image and relationships falling by 16.67% and product/services attributes by 14.62%, as shown in Figure 5.27.

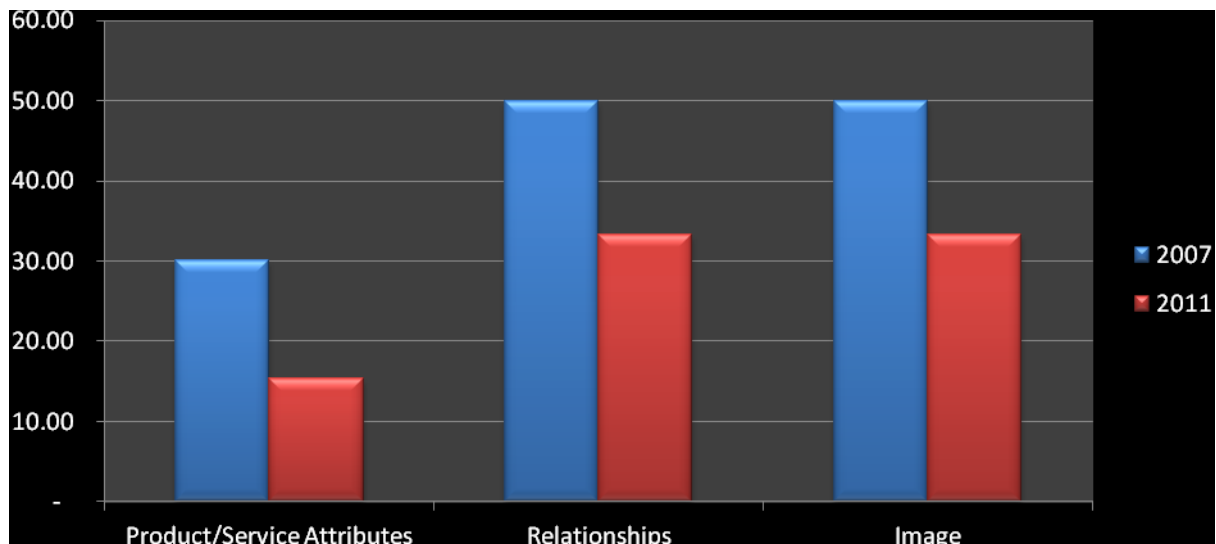


Figure 5.27: Customer perspective trends for CS6

This could suggest that the cost of switching for customers is low or the product being supplied is reaching the end of its life, with the advent of technology and alternatives. There could be some kind of emotional tie to the past and fear of the unknown. These aspects warrant improvements and the succession issue may just be a driving force for low convertibility.

The owner-manager of CS7 considers the position of the customer as king, stating that

“...we have a saying internally that you should love your customer and it’s all about listening to your customers and understanding what they want and delivering against that and over time they will give you recommendations and reference you to other customers and thus increase your sales capability.”

(Owner-manager CS7; 23/07/12)

In this respect, SMEs could cut down on manufacturing and selling costs by satisfying customers in such a way that they become marketing agents for the business. He argues that keeping existing customers happy is the only way you can win new ones:

“...it’s not just about winning new clients; it’s about winning clients that are going to work with you and creating business for the long term.” (Owner-manager CS7; 23/07/12)

These kinds of customers may stay for a long time until perhaps there is a total change in the market, where more value is created. In this respect, the trend analysis shows an increase in image and relationships, which is necessary for customer perception and action in taking up the services of the business. However, the product/service attribute shows a decrease from the previous period, as shown in Figure 5.28.

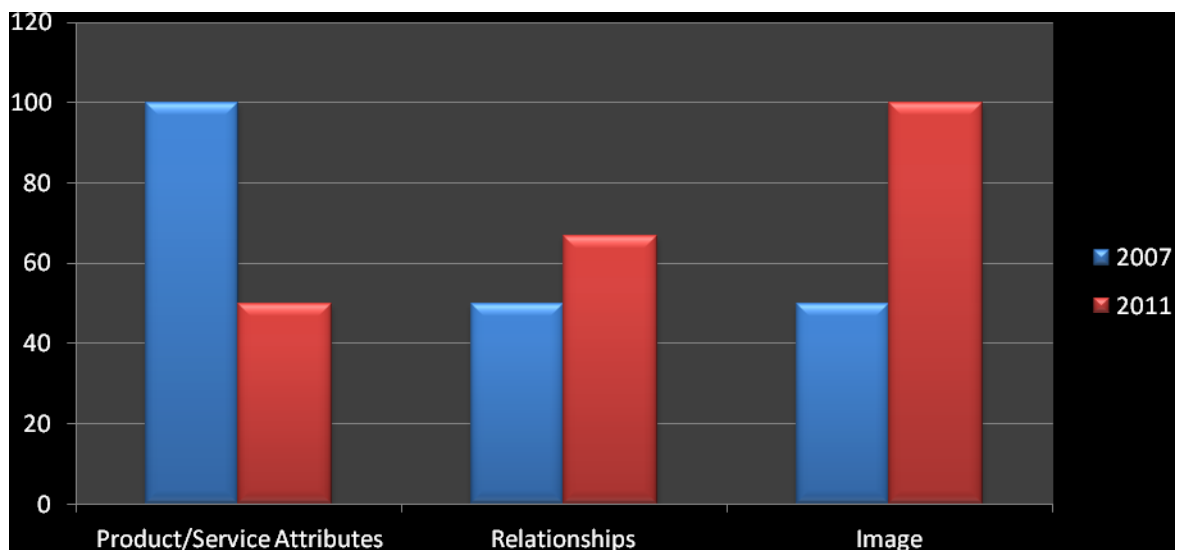


Figure 5.28: Customer perspective trends for CS7

For his part, the owner-manager of CS8 considers the kind of business they are involved in and states that

“...I think it depends on the type of business you are. For our business, we are a consultancy company and we train people as coaches, leaders and help companies.” (Owner-manager CS8; 28/08/12)

This therefore connotes that the business is totally people-based and relationships are paramount in providing customer value. He therefore explains that

“...all our sales are relationship sales as we do not do cold calling. And I think that is getting more and more important, even in commodity industries. Nowadays, when people want to buy something, they want to talk to people about it and I think more businesses like builders, plumbers are all in the relationship game.” (Owner-manager CS8; 28/08/12)

The trend analysis as in Figure 5.29 shows an increase in relationships but a decrease in image and service attributes.

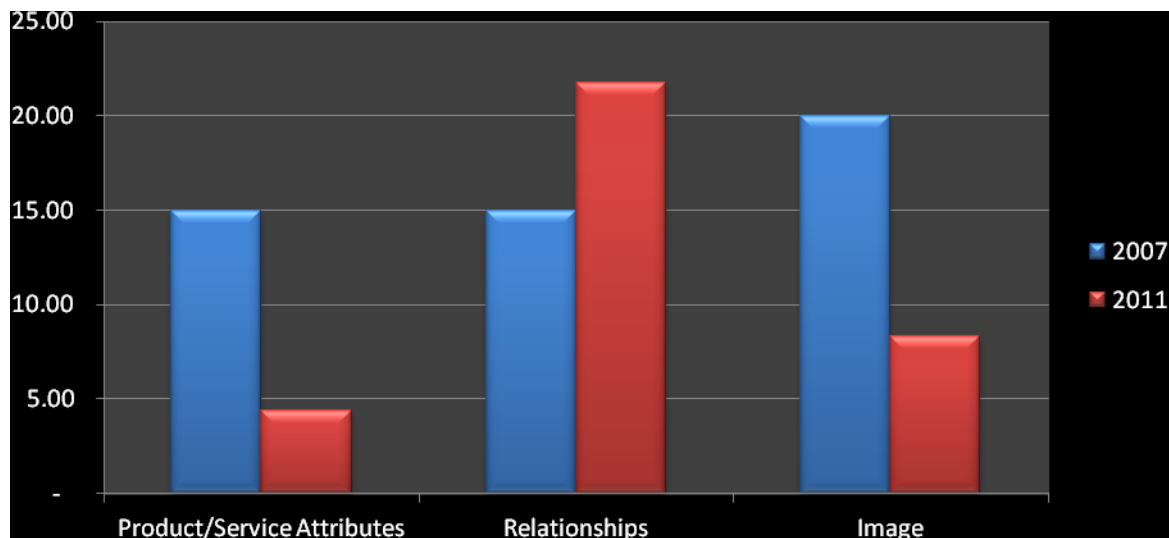


Figure 5.29: Customer perspective trends for CS8

Customer perception needs to be developed for convertibility to attain a level where it will make the business safer.

5.7.2.3.2 Summary on the customer perspective

The results here suggest that these businesses are mainly focus on image and relationships which do not show any significant result with convertibility. While these are important, focusing on a niche in an expanding and global market might be myopic and necessary steps need to be taken to address information and organisational capital to redesign processes and improve on products and services attributes for market share.

5.7.2.4 Financial perspective

On the financial perspective concerning growth and productivity strategies, only CS7 shows a less than average level and the others are low in this aspect.

5.7.2.4.1 Case studies on the financial perspective

The owner-manager of CS4 is of the opinion that quality will always remain a cornerstone for business performance, especially in the sector in which the business operates. Product enrichment has a focus on the high quality of output by perfect internal processing. CS4 showed a decrease of 3.33% for the financial perspective, as shown in Figure 5.30. The trend shows a decrease in the financial aspect.

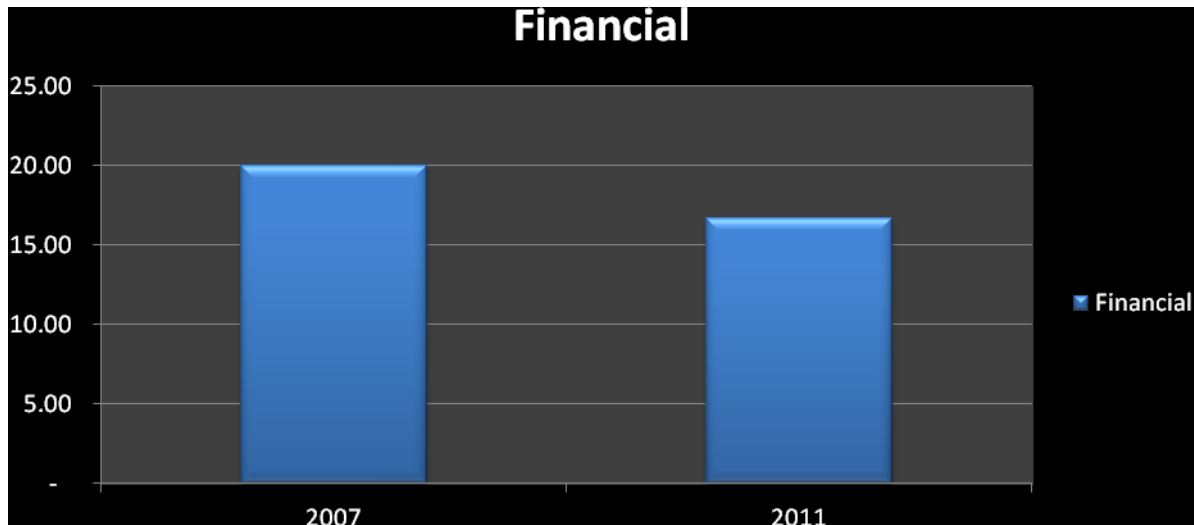


Figure 5.30: Financial perspective trend for CS4

On the other hand, the owner-manager of CS6 is of the opinion that performance will increase depending on innovation because

“...you cannot stand still; you have to find different ways of doing things, having better and different products to get things moving. It is important to have people with the knowledge, it’s not right to put people with no knowledge in front of customers and that is the mistake most companies make.” (Owner-manager, CS6; 08/08/12)

By this, the owner-manager is still focusing on people and the need to harness creativity to drive processes and increase productivity. She continued by stating that

“...anyone can be a sales person or technical advisor with limited knowledge and no time is invested in training the people and I think that lets companies down. We do not let any of our people loose until we are confident our customers are going to be 100% happy with what they get from them.” (Owner-manager, CS6; 08/08/12)

With this keenness on people, there is a possibility of business turnaround, as the main asset is that of tacit knowledge. However, the people must have the same vision as the owner-manager in driving strategy, and here the succession issue is still very important.

From strategy, customer intimacy is about tailored products and services to fit an increasingly fine definition of the customer segment to increase market size and improve business performance. This will require a reduction in transaction costs. The trend analysis shows a decrease of 63.33% in the financial perspective, as shown in Figure 5.31.

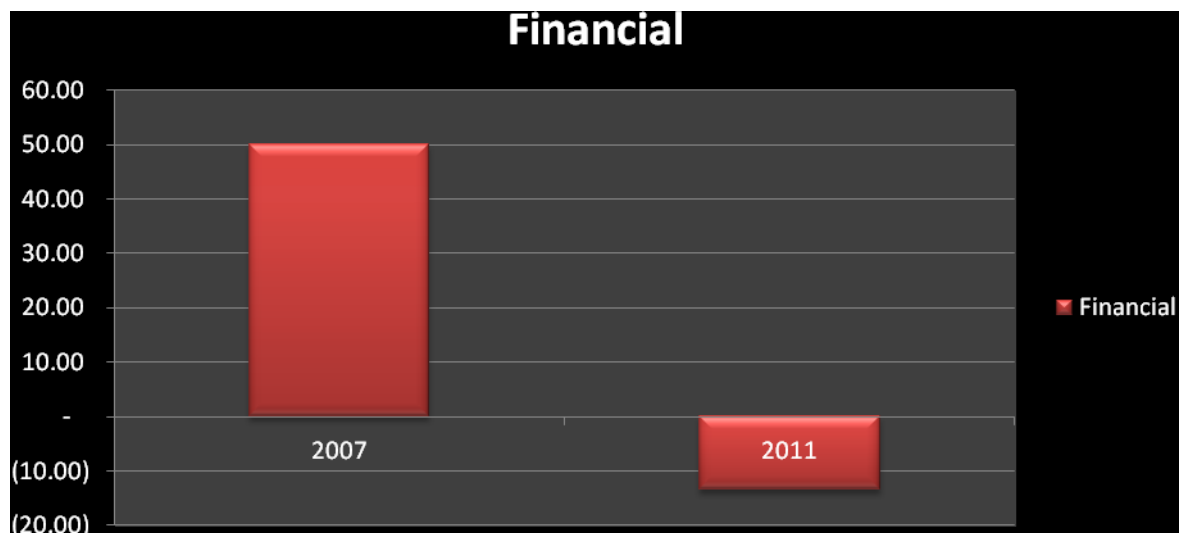


Figure 5.31: Financial perspective trend for CS6

CS7's owner-manager discusses management by perception in maximising performance by aligning motives to strategy. If implemented successfully, this could also be a winning strategy. He therefore claims that

“...people management is going to be very important and to maximise the performance from individuals because if everybody is aligned with the

strategy, then you will have a successful business.” (Owner-manager, CS7; 23/07/12)

However, it must be down to a need to change and to adapt to a dynamic environment:

“...it involves a major performance improvement culture and culture change as opposed to what we may have today.” (Owner-manager, CS7; 23/07/12)

The trend analysis shows an increase in the financial perspective, which suggests an alignment to either growth or productivity strategy, as shown in Figure 5.32.

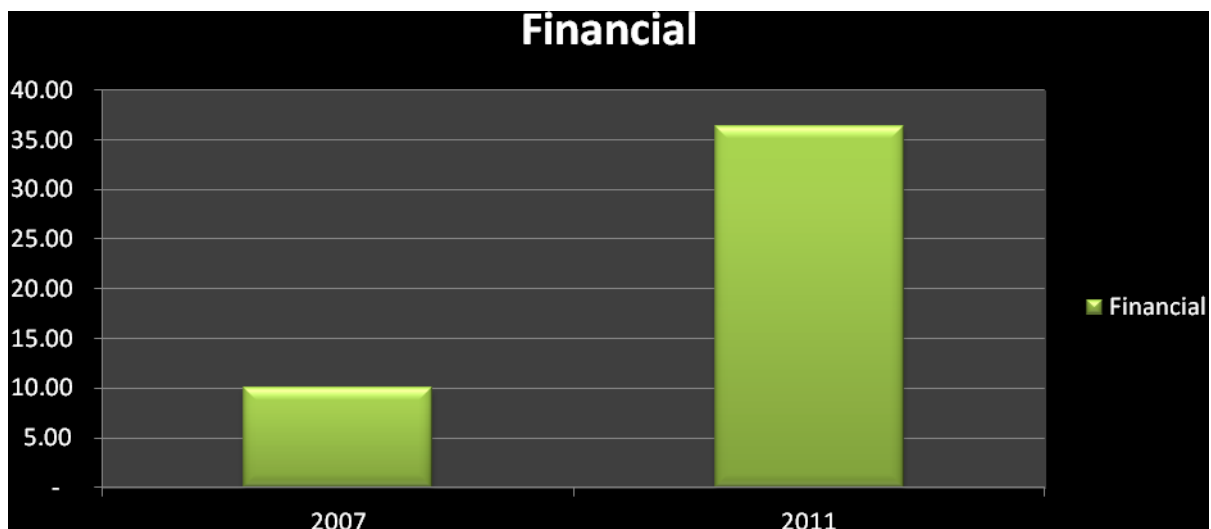


Figure 5.32: Financial perspective trend for CS7

5.7.2.4.2 Summary on the financial perspective

From the other perspectives therefore, the financial perspective show a negative trend on average. Without this element, businesses could fall into difficult situations and reduce the level of convertibility. Synthesising knowledge management through the strategy map could free these businesses to function on fewer resources, accumulate cash quicker and have less unpredictability.

5.7.3 On design thinking

5.7.3.1 Internal aspects

5.7.3.1.1 Case studies on the internal aspects

The owner-manager of CS8 is of the opinion that businesses will need to continuously adapt their strategies in a dynamic environment, as quality is more of a prerequisite.

“...certainly in the past, quality was one of the big issues but now quality is a prerequisite. If you do not have the quality, whatever you do will not get you business and so quality is now the standard. To me, the big thing now is flexibility. If as an organisation you have the flexibility to go with the customer, to meet the customer needs, discuss what the customer really wants, that will get you the business.” (Owner-manager, CS8; 28/08/12)

If businesses are flexible and adaptive to the environment, then creativity and innovation will flourish, keeping customers happy and realising the dream of the owner-manager and business through entrepreneurial abilities. He therefore proposes that

“... if you do not innovate, you will die tomorrow, next month or next year and so innovation is important. But what we find with our clients more and more is about flexibility. The organisation with flexibility will manage the interaction.” (Owner-manager, CS8; 28/08/12)

According to this, therefore, it is more about internal flexibility to achieve external adaptability. These businesses indicate a high level in business analysis and understanding of changes in the immediate external environment. CS7 shows a lower level in experimenting, while CS6 shows a lower level in sensitivity.

Considering self development, the owner-manager of CS4 states that

“...I suppose technology is the problem for me being the age I am now.”
(Owner-manager, CS4; 09/07/12)

He clearly identifies his weakness, which is necessary for continuous development. This could therefore be a focus for future convertibility. He goes on to confirm that learning new processes is crucial for business excellence and success:

“...exactly the same analogy is learning new processes, accepting new processes and understanding new processes and I think that is always as difficult as technology moves very quickly now and keeping up with technology is a problem.” (Owner-manager, CS4; 09/07/12)

The trend analysis, however, shows increases over the period, especially in sensitivity, as seen in Figure 5.33.

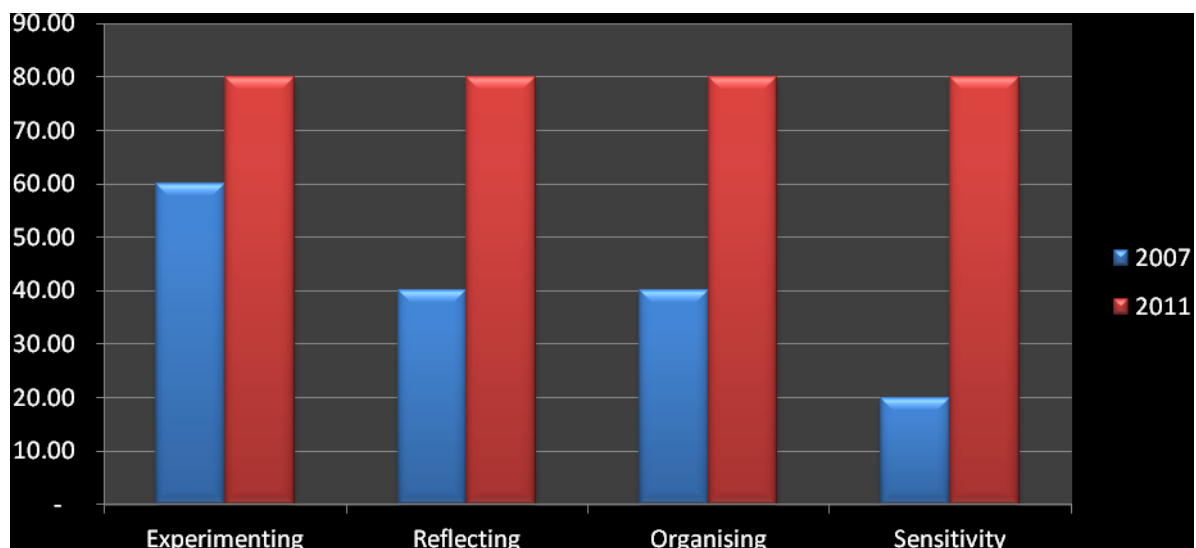


Figure 5.33: Internal aspect trends for CS4

For CS6, the main aspect was also to do with technology. The owner-manager states that

“...in IT and technology, I’m not exactly a dinosaur but I’m not up to date with others.” (Owner-manager, CS6; 08/08/12)

However, she considers experimentation and also environmental changes, especially in culture in relation to the business lifecycle, when suggesting a change in various aspects to keep the business alive, by making productive use of the ability of a younger workforce:

“...we are bringing in younger people from different cultures with different ways of behaving and I am thinking of training more successors so I can retire.” (Owner-manager, CS6; 08/08/12)

There is a conscious attempt to plan into the future and consider the viability of the business. In this aspect, the manager is conscious about the life cycle of the business and states that

“...I have spoken about retiring and my partner is also retiring and so we are trying to make a plan of action to transfer the management of the company to a younger generation.” (Owner-manager, CS6; 08/08/12)

This suggests aspects of business succession, which are necessary for a going concern. However, the internal aspects are moderately high.

Concerning her personal development, she believes that

“...IT and technology are areas for improvement.” (Owner-manager, CS6; 08/08/12)

Trend analyses as in Figure 5.34 show a constant over the period.

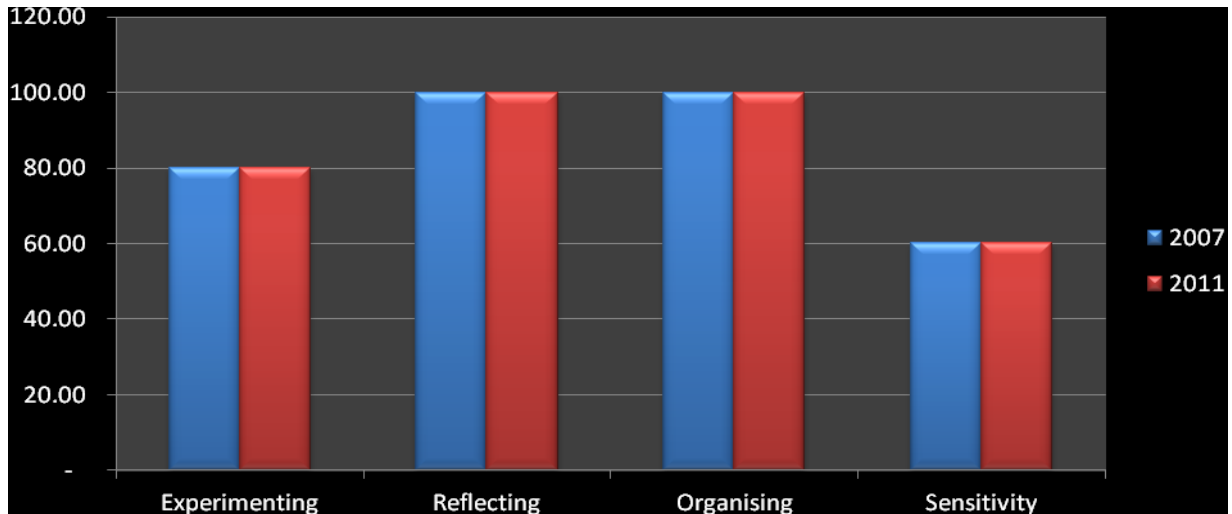


Figure 5.34: Internal aspect trends for CS6

In relation to CS7, the owner-manager’s reflection was more on support from external bodies such as universities with support for sensitivity and organizing as in Figure 5.35.



Figure 5.35: Internal aspect trends for CS7

For CS8, it is about moving on and learning as time goes by. The owner-manager explains that

“...for me, it’s continuing a journey. How do I change and develop? And it gets back to what motivates people and to me; I’m highly motivated by change and development.” (Owner-manager, CS8; 28/08/12)

A willingness to change is necessary for SMEs in their quest to survive

5.7.3.1.2 Summary on the internal aspects

These businesses must look inwardly to assess their capability and provide room for KM adoption which may avoid recurrence of mistakes, save time on problem solving, stimulate innovation and improve customer experience to earn more return. They must however consider a dynamic environment and a need to be flexible and adaptable for convertibility and growth.

5.7.3.2 External aspects

CS4 discusses building collaboration with others and working with partners, with the business carrying out continuous development programs with institutions of learning, which is a cornerstone for success. This shows that he understands the fundamental socio-economic and gain from interactions with partners.

5.7.3.2.1 Case studies on the external aspects

For CS4, the analysis shows that over time there were increases in all but one aspect, as shown in Figure 5.36.

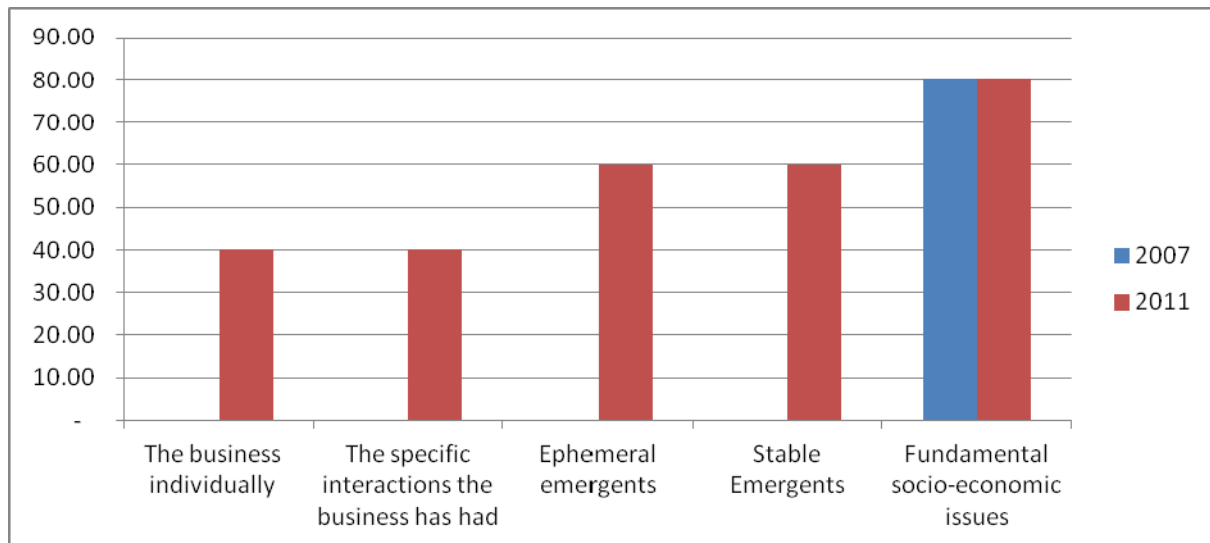


Figure 5.36: External aspect trends for CS4

For CS6, with regard to collaborative working and teamwork, the owner-manager believes that all stakeholders are necessary and in order to satisfy them, a mix must be achieved where there is a combination of soft and hard skills. She therefore makes use of her contacts.

On how these can be supported, she states that

“...I suppose with the IT, I can speak to some of the younger people and they can show me. I’m not sure going to courses is a good thing for me as you need to have hands on and do it and you go on a course, come back and forget it.” (Owner-manager, CS6; 08/08/12)

There was an overall increase of 69%, with increases of 68% for external issues and 70% for internal ones. Further analysis shows that the company is concentrating more on reflecting and organising, with increases of 80% for both and 60% increases for experimenting and sensitivity. On the other hand, they make more use of models and frameworks from their interaction, as well as gauging socio-economic factors, with 80% increases in each.

This shows that the business has cultural, social and economic capital, but there is doubt whether there is any convertibility in terms of investment in potential future benefits from the SECI process and *ba*. CS7 needs to understand the environment, in which it operates and what part it can play in improving the performance of the organisation and staff by focusing on priority items.

According to the owner-manager of CS7,

“...we set up a forum for customers to collaborate around best practice. I noticed on LinkedIn they have many of these forums, but they tend to be very personalised on how it’s done, with no experts on the forum. When KN came up with the BS, everybody said this is the new way of thinking that we need to align ourselves with. Now we have just a lot of different perspectives on what has to be done and people do not know who to follow and I think we need to raise the profile of what we do to be best practice consultants.” (Owner-manager, CS7; 23/07/12)

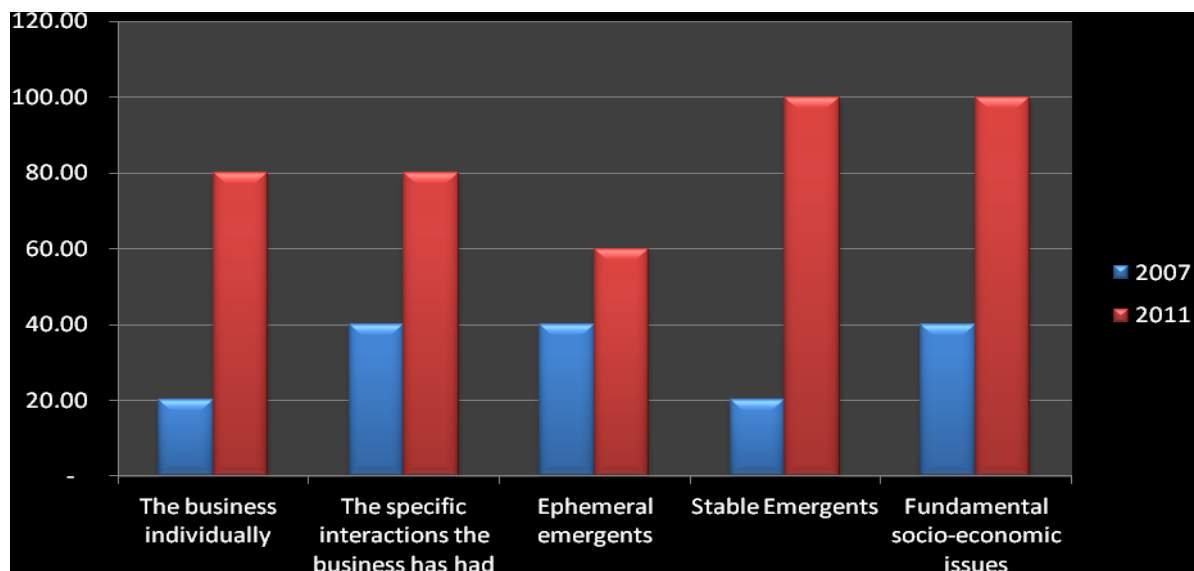


Figure 5.37: External aspect trends for CS6

CS8 believes that internal integration is necessary through teamwork, before the need to build external relationships. He suggests that

“...team working is going to get more and more important...it has always been important but it’s the way teams work and how they work.” (Owner-manager, CS8; 28/08/12)

He goes on to suggest socialisation as a beneficial outcome from gaining knowledge and convertibility, suggesting that

“...it is about the interaction of people and how the people work together...how they trust each other, how they build rapport and how they motivate each other.” (Owner-manager, CS8; 28/08/12)

Looking at the external environment, he believes that increasingly, owner-managers will need to be more flexible and willing to adapt in order to keep up with the times. With this, a culture could spread to their work teams for the same approach to business:

“...to me, what managers will need is around flexibility.” (Owner-manager, CS8; 28/08/12)

5.7.3.2.2 Summary on the external perspective

The analyses suggests that those at a low level are more adaptable and need to develop a system to be more flexible through reflections and experimentation.

5.7.4 Summary for cases suggesting convertibility at a low level

Table 5.4: Summary of cases suggesting convertibility at a low level

	Knowledge Management	Strategic Thinking	Design Thinking
CS4	Strategic/Planning	Reactive	External Sensitive
CS6	Strategic/Planning	Reactive	Experimentative
CS7	Strategic/Planning	Reactive	External Sensitive
CS8	Strategic/Planning	Reactive	External Sensitive

From, the analyses carried out on knowledge management, strategic thinking and design thinking, it shows that businesses suggesting convertibility at a low level fall into particular categories of business process and thinking as discussed by Sparrow (2001). From table 5.4, all the SMEs fall into the strategic/planning phase, for strategic thinking, they all show a reactive stance. In design thinking terms, CS4 is more experimentative while the others believe that they can better work within their environment by being sensitive to changes. A combination shows these SMEs may react negatively to environmental factors and so reduce the level of entrepreneurial capital convertibility.

5.8 Conclusion

The results suggest that all these businesses are all adopting a strategic/planning approach to what they know and how to convert them into various forms for wealth creation. When owner-managers have therefore looked within and businesses have assessed their knowledge capabilities through an audit, it is then possible to map knowledge and thinking in a way that can be followed in a knowledge system that provides a holistic view. A good way of mapping or operationalising this is with a strategy map which examines all the aspects discussed in the knowledge management report and shows holistic thinking. This will influence owner-managers to think in strategic terms.

The analysis of strategic thinking suggests that CS2 and CS5 are adopting a technological (IT) approach to business. This is very possible, as the owner-manager of CS2 has a background in IT and it is an IT-focused business, while CS5 is an engineering concern. Sparrow (2001) suggests that overall about 25% of SMEs have this stance and appear to emphasise technology, innovation and knowledge sharing. The mentality is often one of belief in and prompt adoption of technology. Technologically-oriented businesses may not always secure a good return for their investment and may not appreciate the opportunities in managing knowledge through practices that are less oriented around technology.

On the other hand, and in comparison to the others, CS3 seems to be adopting a reactive stance to business, even though design thinking shows a very proactive approach. Overall, about 20% of small and medium sized enterprises exhibit this stance. The free agent opportunistic entrepreneur often seems to operate through independence, taking opportunities and organising as best as possible as the need arises. Whilst it is an approach with proven success, such businesses may be slower to take up some valuable innovations, and businesses adopting this stance can be overtaken by events and major trends. Analysis of strategic thinking suggest that CS4, CS6, CS7 and CS8 are adopting a reactive stance.

Once knowledge has been operationalised into the strategy map and measured, it is then opened to change as the environment changes. It needs constant revising and re-engineering, or what might be called business process re-engineering, to fit the times in terms of markets and technology. This can be achieved through support from external bodies or a continuous need to recreate from within through creating new solutions by design. Without this, businesses are bound to face difficulties or even failure. Design thinking results show that businesses suggesting a low level of convertibility react more to the stimuli in the environment than actually considering the dynamics of convertibility within. They therefore take an external posture and maybe influenced by economic circumstances. On the other hand, businesses suggesting convertibility at a high level suggest constant reflection on their capital and how this might be improved to achieve advantage. They might therefore be focus on redesigning through experimentation and using the range of intellectual resources and past experiences to create value. Table 5.5 summarises these aspects.

5.8.1 Summary table

Table 5.5: Summary of Case Studies

	Knowledge Management	Strategic Thinking	Design Thinking
CS2	Strategic/Planning	Technological	Reflective
CS3	Strategic/Planning	Reactive	Experimentative
CS5	Strategic/Planning	Technological	Reflective
CS4	Strategic/Planning	Reactive	External Sensitive
CS6	Strategic/Planning	Reactive	Experimentative
CS7	Strategic/Planning	Reactive	External Sensitive
CS8	Strategic/Planning	Reactive	External Sensitive

5.8.2 Propositions

Proposition 1: Convertibility of entrepreneurial capital significantly depends on knowledge management processes in SMEs.

The statistics on knowledge management show a significant association with entrepreneurial capital convertibility. Variables on knowledge in use show that economic capital will be used whatever the level of knowledge understanding in SMEs, stemming from their need to survive in convertibility by motivating people, developing processes and building customer bases for further cash generation, as in the business model. This shows businesses thinking of convertibility at a higher level, are taking a more proactive and market oriented view. Knowledge systems also show that coverage or access to knowledge will not deter the heroic nature of owner-managers to convert, even though they might actually be taking risks. Information technology through the internet emerges as a major factor in convertibility through internalisation, which is transferred through socialisation. However, security is crucial for their market share in a dynamic economy. Individual personalities and moods of people also contribute to convertibility, though not significantly. Knowledge renewal shows that SMEs rely on their supply chains for continuous business and also use knowledge from competitors to improve their

processes. Their thinking suggests that they understand the knowledge economy and its importance in the survival of their business models.

From this analysis, proposition 1 is accepted: *Convertibility of entrepreneurial capital significantly depends on knowledge management processes in SMEs.*

Proposition 2: Convertibility of entrepreneurial capital significantly depends on the strategic thinking of owner-managers of SMEs.

Strategic thinking, on the other hand, shows an association with convertibility at significant levels, suggesting that SMEs need this to survive. This comes through creative thinking, where information and organisational capital are necessary in the process. Information capital further suggests the importance of the internet and collection of information from customers, suppliers and competitors. If SMEs consequently become involved in holistic thinking, there are bound to be results in financial terms, which can boost convertibility over and over again. Organisational capital suggests softer issues such as staff motivation and culture, which are aligned to strategy or a shared vision to achieve goals. With this cycle, there is bound to be convertibility from intangibles into cash to continuously sustain the business, as evident in the significant level of the financial perspective. The trend analysis also shows support for information and organisational capital from 2007 – 2011, as well as innovation processes and a marginal increase in operation management processes. As suggested by the statistics, the customer perspective needs improvement in customer perception of products and services. There is also evidence of the relevance of owner-managers' human capital in the process. Given this, we accept the following propositions.

Convertibility of entrepreneurial capital significantly depends on the strategic thinking of owner managers of SMEs.

Proposition 3: Convertibility of entrepreneurial capital significantly depends on the design thinking of owner managers of SMEs.

Design thinking, which considers the mode and externalisation of knowledge, shows that in many aspects the owner-managers' vision is dominant, due to their mental model. This is in line with Arora (2009) and also matches the models from the socialisation he undertakes with others. This therefore shows the conscious thinking of owner-managers in the entrepreneurship process as they need to be aware of their external environment, which is used in reflection by those who deem this knowledge worthwhile in their approaches to business processes and convertibility to measure up to the business model. Even though experimentation shows a low level, especially in the trend analysis, it is clear that the mental models of the owner-managers who strive to map out processes and implement them will always be a bonus for entrepreneurial capital convertibility.

The following chapter focuses on discussion of the results gathered from the analysis, with their cause-effects relationship on the main aspects of capital convertibility and with focus on the owner-managers.

CHAPTER 6: DISCUSSION

6.0 Introduction

The results presented show overwhelming support for the use of social, human and especially economic capital (Firkin, 2001; Lam et al., 2007; Shaw et al., 2009) in SMEs for convertibility into other aspects for business success. Revenue is operationalised to include amounts after costs in terms of return on equity and profit margin, while asset utilisation includes working capital and financial structure. All these variables are considered according to the definition of economic capital by Bourdieu (1986), as any resource that can be easily converted into cash. With regard to knowledge systems, it is shown that whatever the level of knowledge coverage and accessibility, owner-managers of SMEs are willing to use their incomes or money to improve their businesses.

6.1 Convertibility

Cash representing economic capital is reinvested in both short term assets (working capital) and long term ones (financial structure), in personal contact networks (Renzulli et al., 2000) and partnerships (Tether, 2005) for future gains. Using asset utilisation (working capital and financial structure), they are further reinvested in social contacts through partnerships in terms of stakeholders, development of brand image for positive customer perception, product or service attributes (social capital), development of organisational knowledge systems (human capital) and returning all these to the strategic alignment (cultural capital) of the company. This connotes a move from the operational to the strategic goals of SMEs, with each selecting a particular strategy to fall under revenue growth or profitability. It therefore points to the fact that owner-managers will always strive to convert their resources, even if they do not know their resource base. The question remains of whether it is advisable to do this without having an overview of knowledge systems and

accessibility to the main sources of organisational key success factors. Before thinking of these capabilities, the owner-manager will need to consider a feasible customer value proposition in terms of product/service attributes (price, quality, availability, selection and functionality), relationships in partnerships or image in terms of branding (Kaplan and Norton, 2004). The question will need to be asked at what levels these are to be provided in order to enhance a particular strategy. This will reflect the customer perception of the business.

Entrepreneurial owner-managers (Chell, 2008) need to then put in place the right environment (Nonaka and Takeuchi, 1995) and processes to meet customer needs, starting from understanding these needs, absorbing information from customers through motivated work teams in internalisation, using this information to create or change products and services through externalisation and then sourcing the main inputs to assist in product development in the most efficient way to satisfy customers. This is seen as a movement along the supply chain in regulatory/social, innovative, customer relations and operations management processes. In using economic capital to develop product attributes and build brand images, owner-managers treasure the secrecy of their ideas and this is argued as an attempt to differentiate their offerings by using tacit knowledge which is not easily imitated.

On knowledge renewal, information from competitors aids in the convertibility of revenue streams to the functionality of products and services, as well as revenue streams to brand image. The internet is very instrumental for SMEs, who use their economic capital and make decisions on innovation processes, adapting their entrepreneurial values, developing their knowledge and IT applications and relating these to strategic alignment. This shows that the internet is a massive learning tool, used as a substitute for many processes to aid in meeting needs and the social capital aspect in terms of networks, generating new information and technical aspects of human capital development. Gathering information from customers also assists in working capital, to gain more cash through profits. Learning processes show that continuous benchmarking helps owner-managers in making decisions on

investment in innovation processes, new knowledge, changes in values, upgrading IT applications through feasible strategies and then tactical and operational plans for efficient and effective use of resources.

Processes must, however, be supported by a learning and growth culture which is mainly supported by organisational culture and the leadership styles of owner-managers. Learning support and evaluation such as mentoring and coaching will aid operational matters in working capital management to develop better products and services for customer satisfaction. It is, however, necessary to evaluate the symbolic capital customers will attach to this.

6.2 Patterns of convertibility

The patterns significantly support the association scores, where economic capital is converted into social capital as well as human and cultural capital, and social capital converted into human, economic and cultural capital, as a result of innovative processes, regulatory and social processes, as well as organisational capital. Internalisation through the internet provides a source of knowledge acquisition for subsequent externalisation and continuous benchmarking in business performance. This therefore indicates the importance of technology in an increasingly global age. However, this is only possible through the perception and leadership style of the owner-managers of SMEs.

6.3 Business approaches and convertibility

The analyses suggest three approaches to business adopted by the different owner-managers: reactive, technological and strategic/leadership. These are based on the entrepreneurial attitudes of the owner-managers, which will affect their perception of the environment and the level of convertibility. Using the analyses of the mix data, the various SMEs are adopting particular approaches similar to their business approach.

6.3.1 Cases suggesting a high level of convertibility

The analyses suggest that the owner-managers of these businesses are considering taking a lead in key aspects of business development and setting standards for others in the convertibility of processes and markets in a dynamic environment. They therefore show ambition in increasing revenues and product/service attributes to satisfy customers by offering these to meet needs, as suggested by CS2 and CS5. As well as adopting a revenue strategy, they have taken approaches to understanding customer perceptions by analysing both internal and external customer personalities. In this respect, they seem to understand their business very well, moving from the SECI process of combination to embodying the business through knowing what they know (Nonaka et al., 2000).

This may suggest a focus on actively converting knowledge through communication with teams and using ICT in the process (systemising and exercising and *ba* with contemporary media and ICT), given that they have mastered systems, have developed know-how or expertise in their niches and ingrained these into their organisational culture through actions and practices and are now putting routines in place with a desire to be continuously flexible and adaptable.

Considering market convertibility, customers will attach symbolic capital to differentiated services or product features but will not mind if undifferentiated support or services are provided, as shown in Figure 6.1, in order for the SME to further convert into economic capital.

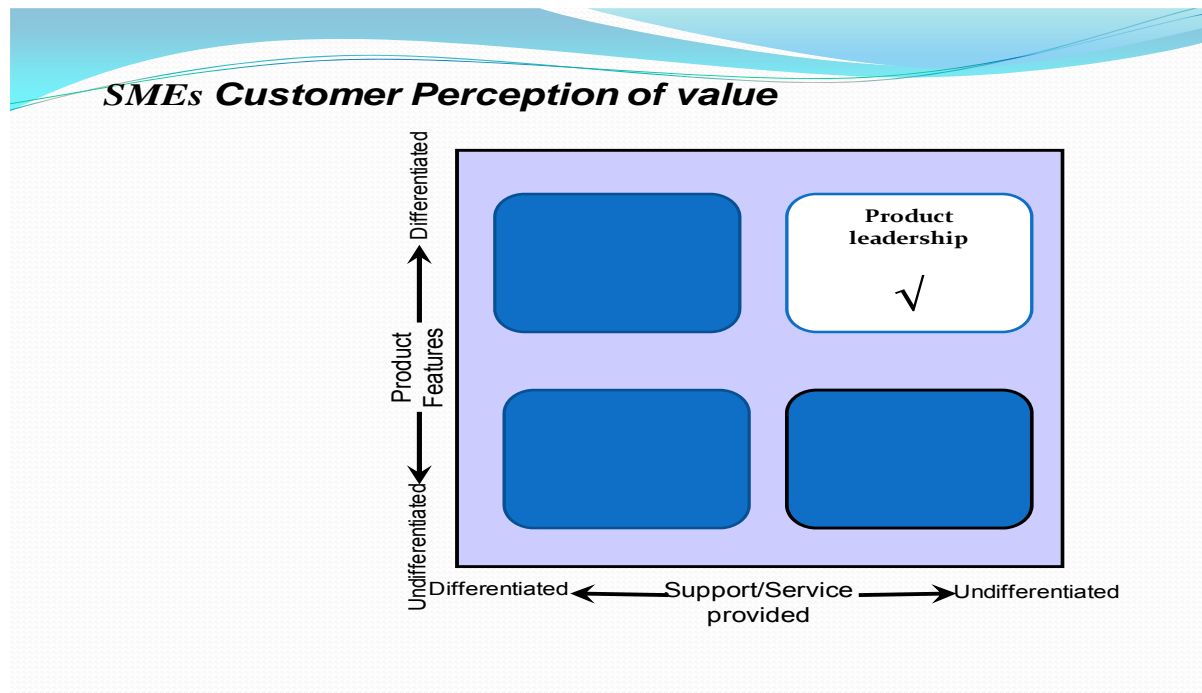


Figure 6.1: SME customer perception of value for CS2 and CS5

This suggests a differentiation strategy or branding, where the product or services are differentiated and the support services stay the same. These businesses are constantly working hard to implement innovation and renewal to stay as market leaders, with key components being R&D skills and innovative capacity, information technology and systems, speed of innovation reflected in high levels of innovation processes, and operations management processes. They also become involved in major regulatory and social processes to maintain their image, are technologically-focused and able to sense changes in their immediate environments. The owner-managers of these SMEs have both a technological background, which may indicate

a focus on routines (Feldman 2004) and indicate the importance of partnerships for their success, as well as an international presence.

The owner-manager of CS5 states that

“...the key to competitiveness in the future for us is which technologies and projects we go for through our customer and R&D function.” (Owner-manager, CS5; 13/12/12)

This suggests an intensity of convertibility between human and economic capital. There is, however, room for improvement in identifying cultural and social capital elements for convertibility. The intense reflective attitude of the owner-managers will surely add value to this aspect.

According to Sparrow (2001), such SMEs are adopting more ‘knowledge ownership oriented businesses’, which shows recognition of the challenge of the knowledge economy and the need to have the capability to dedicate the energy to convert capital and enhance KM developments. They feel that they appreciate the value of particular aspects of their knowledge, emphasising ongoing evaluation of practices and believing that they understand the key aspects of personal understanding and experience that constitute their expertise. They are at phase 4, where connecting of knowledge to processes can be gained through a strategy map. The owner-manager of CS5 confirms this by saying that

“...we have been involved with various projects with partners and I am on a course at the moment with a university and involved with other local universities. We have done technical work with many other universities and one of the things we have found in the past is breaking the problem link between universities and business and making a project idea work. That is where the difficulty is and we are trying to get around that link at the moment.” (Owner-manager, CS5; 13/12/12)

The more collaborative methods have the benefit of providing an opportunity for the investigation of diversity and uncertainty capability through absorptive capacity. Sparrow (2001) indicates that the KMC tool can offer a structure to consider the reinforcing fundamentals of a KM system (e.g. culture and reward systems). Considering their market and the use of technology, these kinds of SMEs will need more of an incremental aspect to entrepreneurial capital convertibility, with a more mixed focus tailored to their needs, as their market is more stable and they can boost technological superiority as suggested in figure 6.2 on the convertibility matrix (Henderson and Clark, 1990)

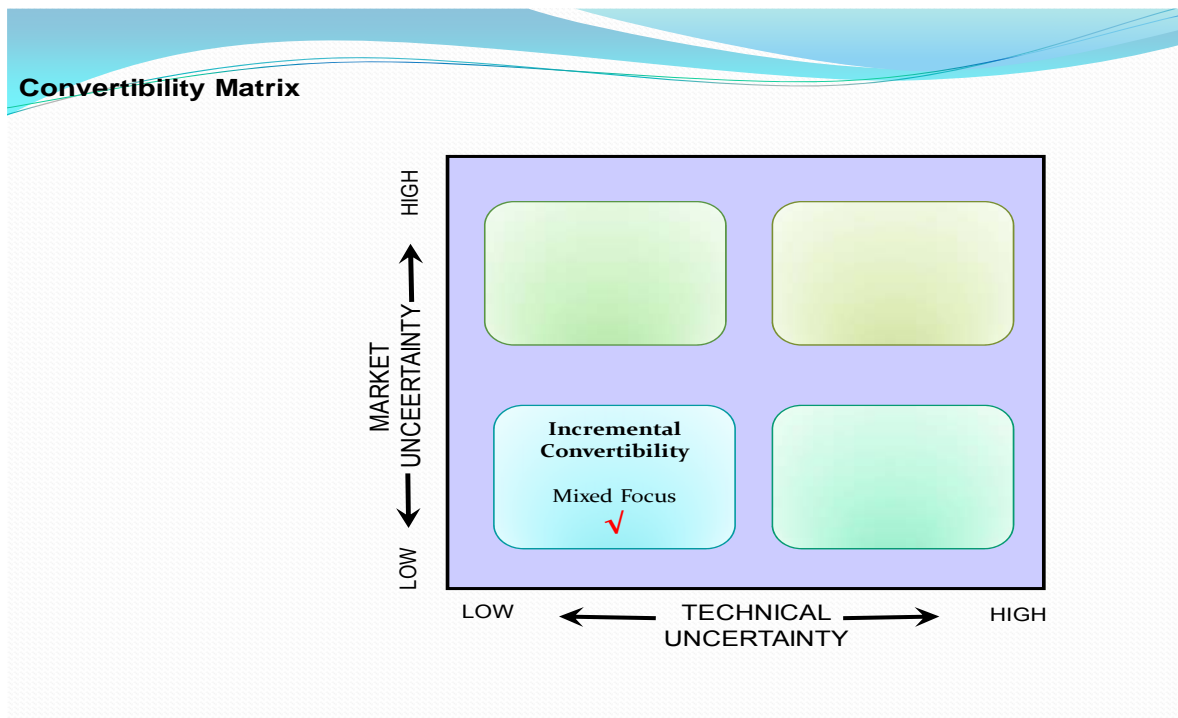


Figure 6.2: Convertibility matrix for CS2 and CS5.

In considering a mix of convertibility between capital elements, the owner-manager of CS5 stated that

“...we do best practice networks and update learning by doing courses internally and externally. We rely on trade bodies and we keep an eye on

everything that is coming up, especially legislation, and its just being aware about what is going on around you and taking necessary measures.” (Owner-manager, CS5; 13/12/12)

According to Arora (2009), such owner-managers are at quadrant A, which deals with logical, analytical and quantitative details and is associated with performance-driven and achievement-oriented individuals. Most prominent in this is the technical aspect, as well as the importance of being analytical. Being owner-managers in business for over five years, they also exhibit quadrant D of a visual, holistic, innovative, conceptual and imaginative mind, which is associated with explorers, and future-oriented and risk-driven individuals. The owner-manager of CS2 has an IT background and the owner-manager of CS5 is an engineer, supporting the technical skills and human capital (CS2) level, together with a need for innovation and R&D (CS2 and CS5) in the analyses. This is also confirmed by van der Linden (2009), who states that convertibility is mainly between human and economic capital for customer satisfaction and revenue growth, pointing to technological strength.

According to the analyses, owner-managers adopting a strategic/leadership approach to knowledge management, a technological approach to strategic thinking and a experimental approach to design thinking are therefore leaders in their industry and have a leadership style close to that of standard setters in quality, carbon footprints, new technologies and new markets, and they lead their staff by convincing them of the need to share the same vision. For example, the owner-manager of CS2 states that

“...I do challenge everybody in the business in a nice way, very often with a smile on my face, and I do not want to stop doing that and I want to be that kind of person who questions and challenges.” (Owner-manager, CS2; 04/07/12)

CS2 and CS5 (services and manufacturing respectively) show this pattern. This leadership style of a standard setter corresponds to a strategy with the attributes of assertiveness and visionary as shown in Figure 6.3.

SMEs Leadership Style

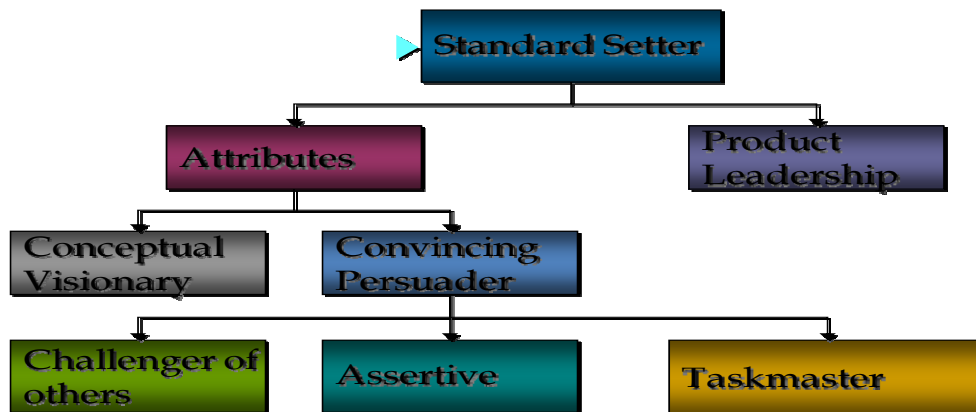


Figure 6.3: SME leadership styles for CS2 and CS5.

On strategic intent therefore, the standard setting nature comes alive when the owner-manager of CS5 states that

“...quality will always be a primary driving force. What we are seeing now is more environmental issues, sustainability, carbon footprints – all linked together- and are selling points and big drivers for getting into markets. There are becoming not quite as important as quality but they are up and coming and of great important to us.” (Owner-manager, CS5; 13/12/12)

This shows an attitude focussed on taking a lead in environmental issues, which will add to the reputation of the business. On adapting in a knowledge economy, the owner-manager of CS2 attests to attributes of this leadership style by stating that

“...we are unique in what we do around the world so we are looking at areas of the market and experimenting to an extent, though we are very knowledgeable about what the market requires, but we still occasionally have to roll the dice in different areas which is exciting but it’s a challenge personally and whether we do or not.” (Owner-manager, CS2; 04/07/12)

This can then be represented in the conventional strategy map for CS2 and CS5 with R&D, speed in innovation and ICT leading to differentiated products at a premium price to earn a return on capital through market growth as shown in Figure 6.4, where they can take a mixed approach to their convertibility depending on the market and so flexibility and adaptability are paramount through a continuous need to think of future solutions and redesign. Here, a mix of Schumpeter’s and Kirzner’s approaches is useful.

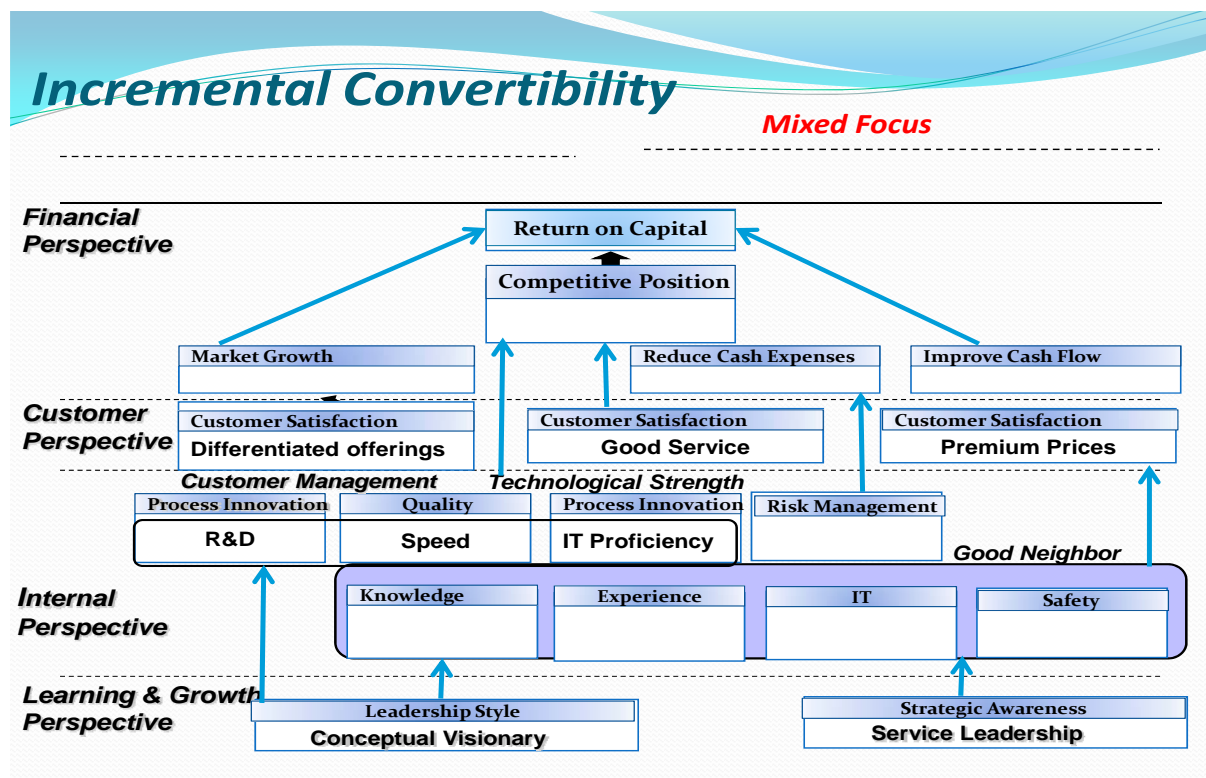


Figure 6.4: Cause – effect diagram for CS2 and CS5.

Considering CS3, the focus is on maximising fixed costs in a saturated market and so asset utilisation is more pronounced. The key internal core competences here are the resources, knowledge, methods and techniques engrained in routines, which need rethinking by originating *ba* for socialisation and idea generation. This may need more trust and security, as well as passion and a continuous critique of ways of doing things. This will highlight the continuous focus on processes for product and service improvements and convertibility to cash flow through valued network. The customer value proposition here is to provide the right product at the right price, with very good service when offering value to customers and as a mature, capital intensive business, operations excellence is necessary for cost reduction so as to make a sustainable bottomline. Its strength is therefore in process convertibility. To convert capital from internal processes using this strategy from the customer perspective, it is necessary to have undifferentiated product/service features, as well as after sales service, as shown in Figure 6.5.

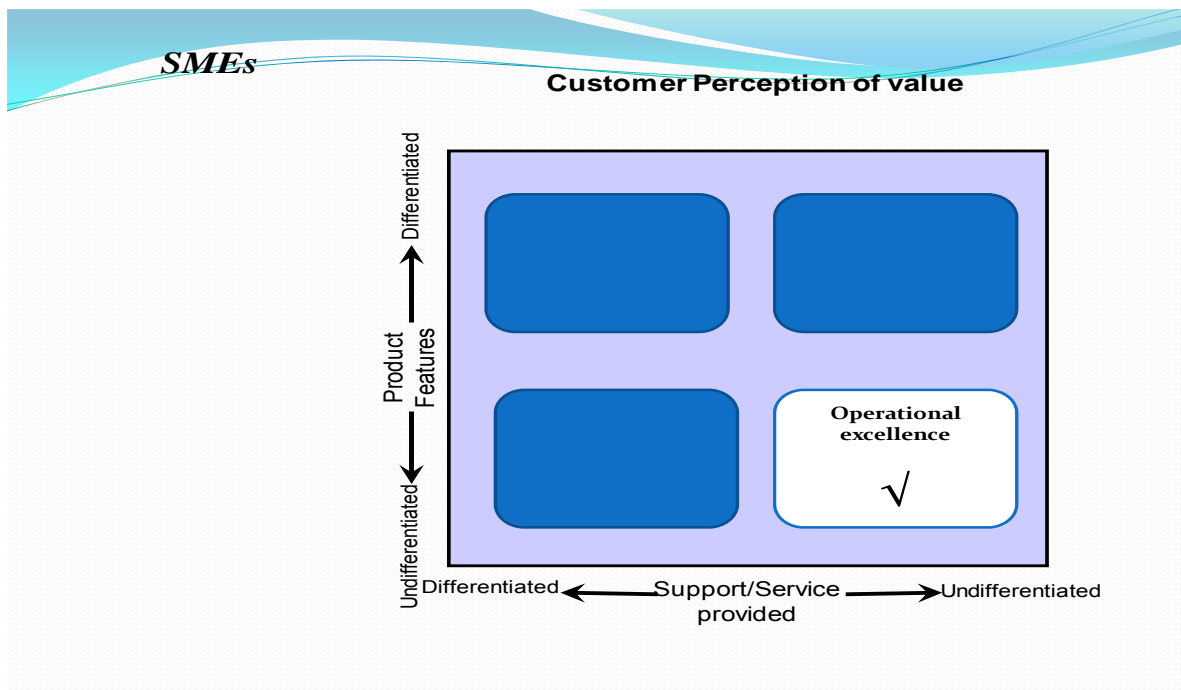


Figure 6.5: Customer perception of value for CS3

The owner-manager of CS3 states that

“...we are slightly different but it is very mature market and it is very difficult to be different in a saturated mature market because lots of people are very similar.” (Owner-manager, CS3; 18/06/12)

Key to this involves good operations management processes for incoming and outgoing processes, good workforce skills and sufficient employees to convert efficient operational processes, thereby leading to low production costs in order to increase the bottom-line.

Therefore on the importance of a manager’s job, he states that

“...at the end of the day, there will be a balance and people will find their levels and generally somebody who has an all round understanding of what is needed from a managing point of view, managing people, managing the technical side, looking at the environment, understanding what is needed in the business.” (Owner-manager, CS3; 18/06/12)

Sparrow (2001) suggests that this kind of SME falls between the comprehensive and knowledge ownership oriented models. It has captured some aspects of knowledge in knowledge systems, with effective access and efficiency for some areas of its operations. It is at phase 3, which includes business process analysis and operationalisation in tight system terms. Visualised representation of processes (using flow diagrams), as well as the sharing of mental frames function well when assisted by mental maps that different owner-managers may have. A reflection of learning processes can gain knowledge from customers, best practice networks, suppliers, internet and universities to use in the process of convertibility. Learning is supported by the owner-manager of CS3, who states that

“...I think working with universities, knowledge transfer, working with academic bodies like this exercise is important because it is useful to reflect, think and exchange.” (Owner-manager, CS3; 18/06/12)

However, the volatility in the market is high, with turbulence in the economy. Technological uncertainty is low, as the business has invested in this, given its nature. In this situation, this kind of SME will need a more market form of convertibility, where social capital is stressed in order to keep the business afloat and able to compete. Management and customer perception is therefore needed for business development, as shown in Figure 6.6.

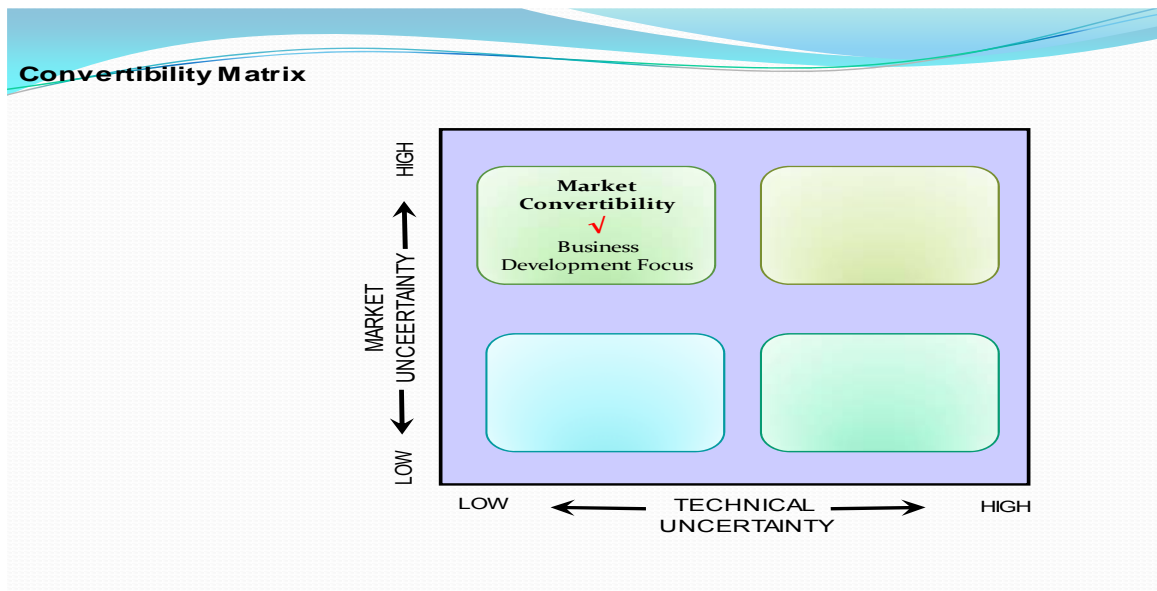


Figure 6.6: Convertibility matrix for CS3

This is supported by the owner-manager of CS3 when discussing how important it is that a manager is right for a particular business:

“...I think the manager has to be right for the business, committed to the business and wants to work, understanding his roles and limitations in the business.” (Owner-manager, CS3; 18/06/12)

From the analysis, CS3 is adopting a strategic/leadership approach to knowledge management, a reactive approach to strategy thinking and a reflective approach to design thinking; further analysis shows the owner-manager to be conservative and assertive. He needs to take decisions as quickly as possible, such as in the case of making redundancies and directing the business in the right path. In considering strategic intent, he states that

“...quality service and price will always be important and if you haven’t got it, then you are dead in the water. It’s an absolute prerequisite.” (Owner-manager, CS3; 18/06/12)

This suggests a conservative attitude and a need for operational excellence, where products are made to the highest level using the best processes; this is reflected in the background of the owner-manager as a chartered accountant. According to Arora (2009), having achieved quadrant D, convertibility for such individuals starts in quadrant B, which deals with conservative, structured, organised and detailed traits and is associated with task-driven people. This therefore corresponds to a directive leadership style, where the characteristics of the owner-manager are being definitive, firm/assertive, cautious and commanding. This style is linked to quick decision making and efficiency in processes, with attributes as shown in Figure 6.7.

SMEs

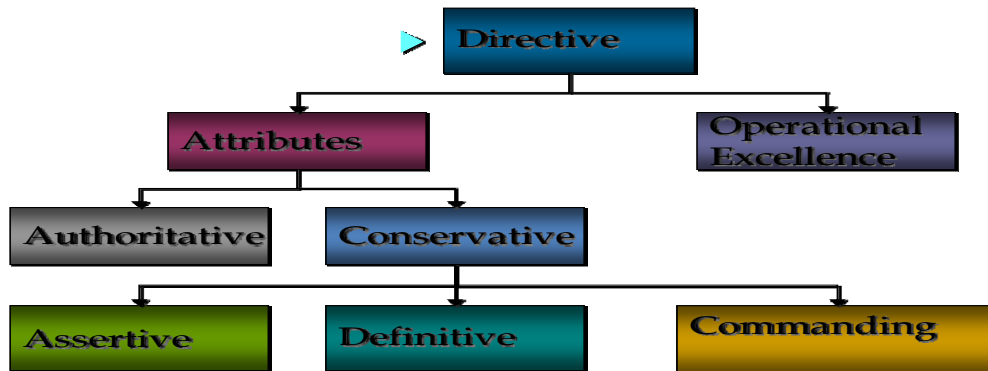


Figure 6.7: SME leadership style for CS3

Overall, CS3 needs to concentrate on its market through social capital by building a customer base and engaging in more partnerships. Customer perception is therefore required both inwardly and outwardly for convertibility and adoption of a market orientation towards market convertibility where partnerships are crucial leading to undifferentiated products at low prices with a good image for the SME, as shown in Figure 6.8.

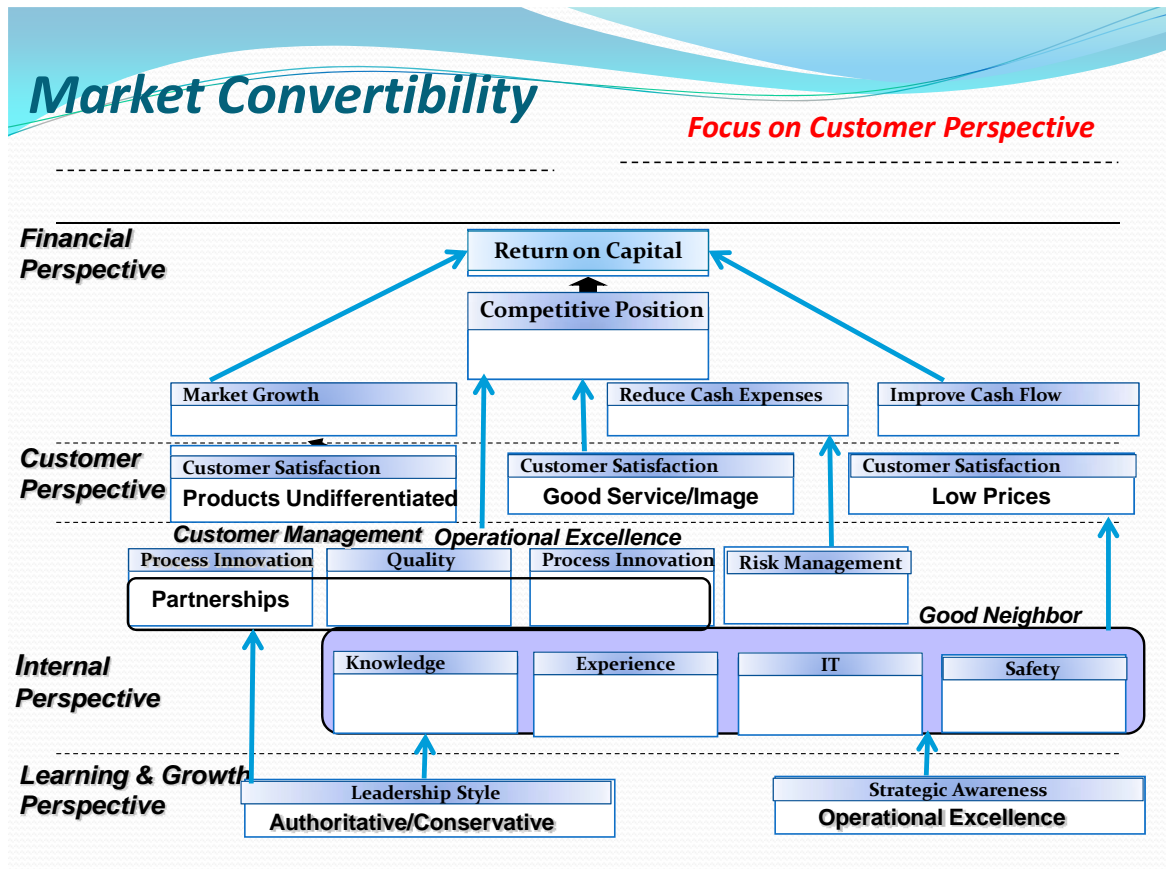


Figure 6.8: Cause – effect diagram for CS3

A more Schumpeter-like approach with free-wheeling opportunism may be best advised in this case.

6.3.2 Cases suggesting a low level of convertibility

The analyses suggest that management for these businesses is tending to take an approach in which there is considerable internal analysis of the workforce and suppliers, but little of the market, with the exception of CS6. They seem to follow a more backward supply chain method in relationships. It follows that management by perception may help owner-managers understand the needs of work teams and ways of motivating them to support the externalisation of tacit knowledge for use in conceptualisation of new ideas for new product/brand development. This will involve genuine collective face to face dialoguing. Given that they depend on retaining customers, new ideas will create avenues for new customer acquisitions. They are mainly concerned about reducing their variable costs in a strategy of productivity and may be seen as reactive. Some, however, still show some ambition in meeting customer requirements. Considering a customer base, customers will attach symbolic capital to offerings where core product features are undifferentiated and support services are differentiated, as shown Figure 6.9.

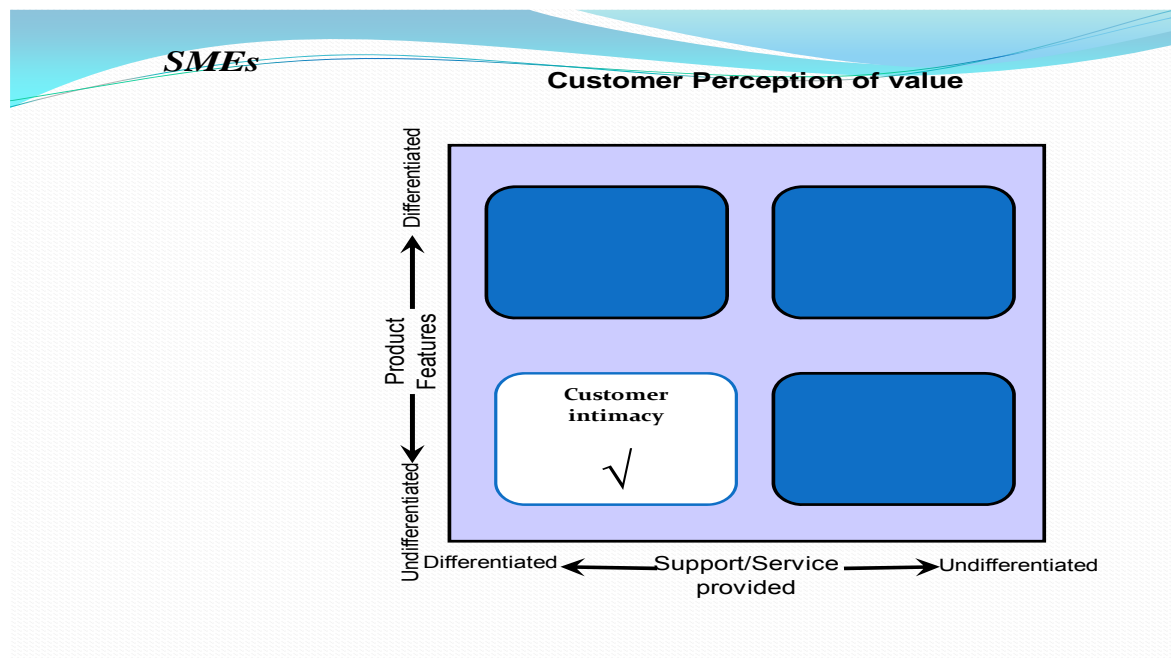


Figure 6.9: Customer perception of value for CS4, CS7 and CS8.

These SMEs seem to be very close to customers on more of an emotional basis. In a customer closeness strategy therefore, relationships are emphasised in which products and services are tailored to fit the customer needs, with components of market positioning through ranking of product/service and better quality brands than competitors. They show a low level of gaining information from competitors and will need to keep customer expectations high in order to stay afloat and make sure product and service quality fit the market.

This shows that the business has cultural, social and economic capital but there is doubt as to whether there is any convertibility in terms of investment in potential future benefits. These must be translated into the right processes in areas in which the businesses are weak. There may be enough creativity, but the question is whether these are converted into tangible benefits through the symbolic capital that customers attach to it. Relying on a base could also be risky, as competitors make headway into a niche, especially in dynamic environments. Linking their processes to learning and growth, they show a participative and team-oriented business environment.

Sparrow (2001) suggests that they appear to have taken a concerted and comprehensive approach towards managing their knowledge. They have undertaken more analysis and believe they have the appropriate capabilities to deal with knowledge challenges. They will fall in phase 2 where structured analysis are used in an attempt to value facets of intellectual resources. This is stated by the owner-manager of CS8 when considering support:

“...I need to learn by talking to people and working with people so it’s mixing with other people and using that system to learn. And again, the internet has a massive capability and when I want new information, one of the first things I do is Google it and you can find out all sorts of information, training, what others are thinking. So it’s about using what systems are available.” (Owner-manager, CS8; 28/08/12)

On external support, the owner-manager of CS7 states that

“...I’m hoping the university can help me achieve my objective.” (Owner-manager, CS7; 23/07/12)

The SME can also profit from less quantitative visualisation of intellectual resources. This may bring into focus training issues for more widespread support of SMEs using an integrative model. Teams must therefore be trained in processes and a big picture presented, in which the intellectual capital is duly converted to tangible benefits.

Here, the market element or social capital seems to be favoured to the detriment of internal excellence. Processes are always needed to serve customers better through good quality of products and services and reduction in business risk. This market element aids innovation through best practice. Technological aspects are therefore low here and the process of convertibility of capital needs to adopt a more technical aspect, in which engineering, re-engineering or re-designing through design thinking is the focus, as shown in the matrix in Figure 6.10.

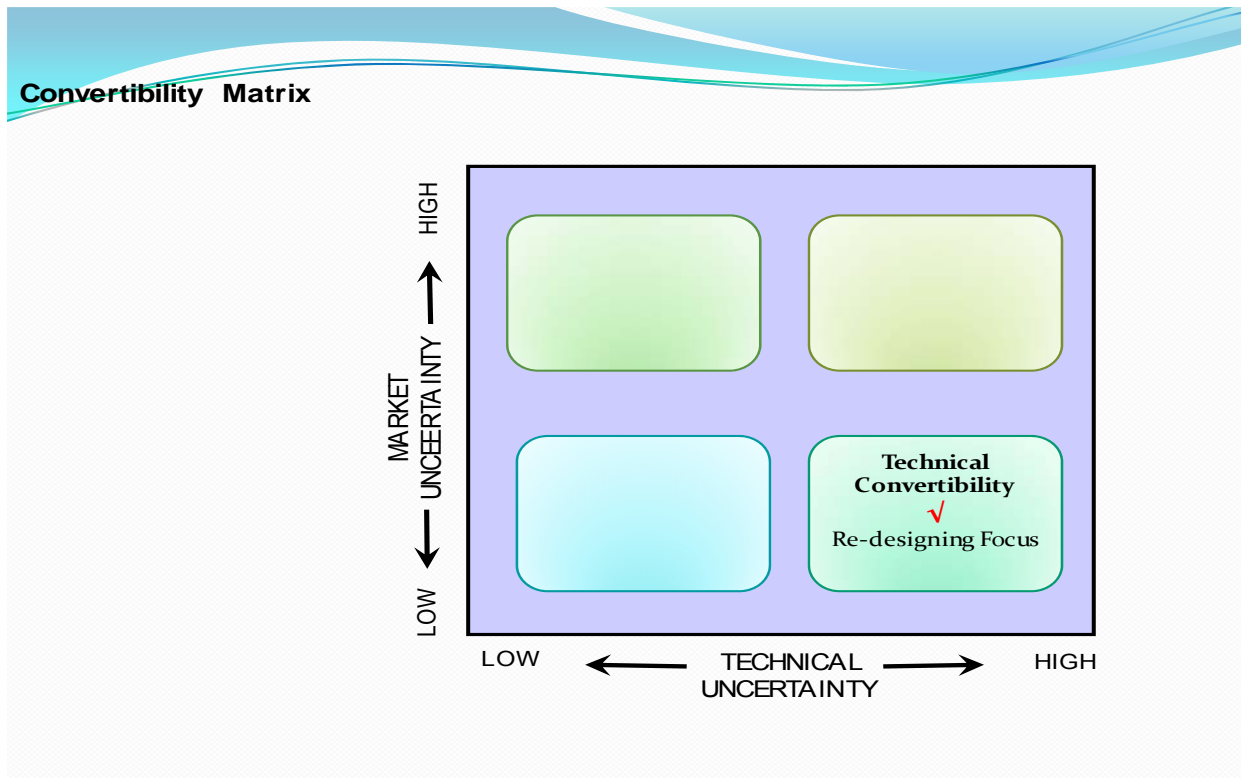


Figure 6.10: Convertibility matrix for CS4, CS7 and CS8.

As well as having aspects in quadrant D, such owner-managers fall more into quadrant C, which deals with interpersonal, kinaesthetic, emotional, spiritual, sensory and feeling issues and is associated with value-driven individuals, but also takes up elements of quadrant B. The analyses show that they are adopting a strategic/leadership approach to knowledge management, a reactive approach to strategic thinking and a learning approach to design thinking, therefore adopting a more participative style. CS4 (manufacturing) and CS7 and CS8 (services) show this pattern. Attributes of this style include team building, coaching and reliance on trustworthiness along the supply chain internally and externally, as shown in Figure 6.11.

SMEs

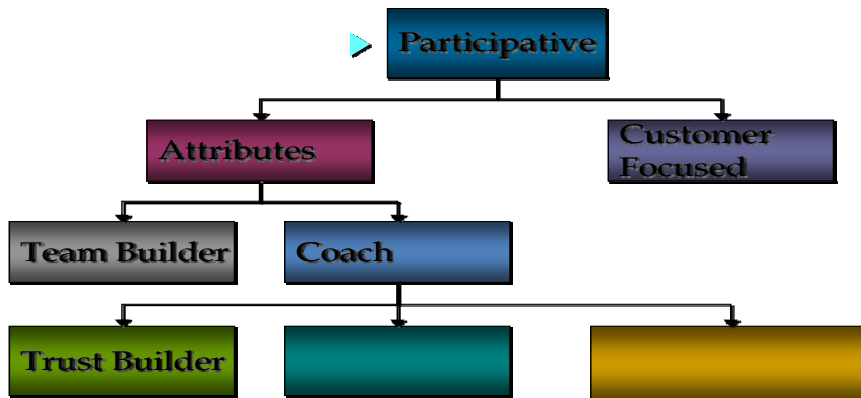


Figure 6.11: SME leadership styles for CS4, CS7 and CS8.

As stated by the owner-manager of CS8,

“...team working is going to get more and more important...it has always been important but it’s the way teams work and how they work and there is now a lot of work done in the last couple of decades on team working and what it means.” (Owner-manager, CS8; 28/08/12)

According to the owner-manager of CS7,

“...people management is going to be very important and to maximise the performance from individuals because if everybody is aligned with the strategy, then you will have a successful business but that involves a major performance improvement culture and culture change as opposed to what we may have today.” (Owner-manager, CS7; 23/07/12)

In order to take a holistic view, CS4, CS7 and CS8 all need to focus more on their internal processes and specifically their technical processes in order to achieve their business objectives, for example, IT. The value proposition however may include

undifferentiated products at high prices which can only succeed based on the SME's reputation through marketing strength for capital convertibility as in figure 6.12

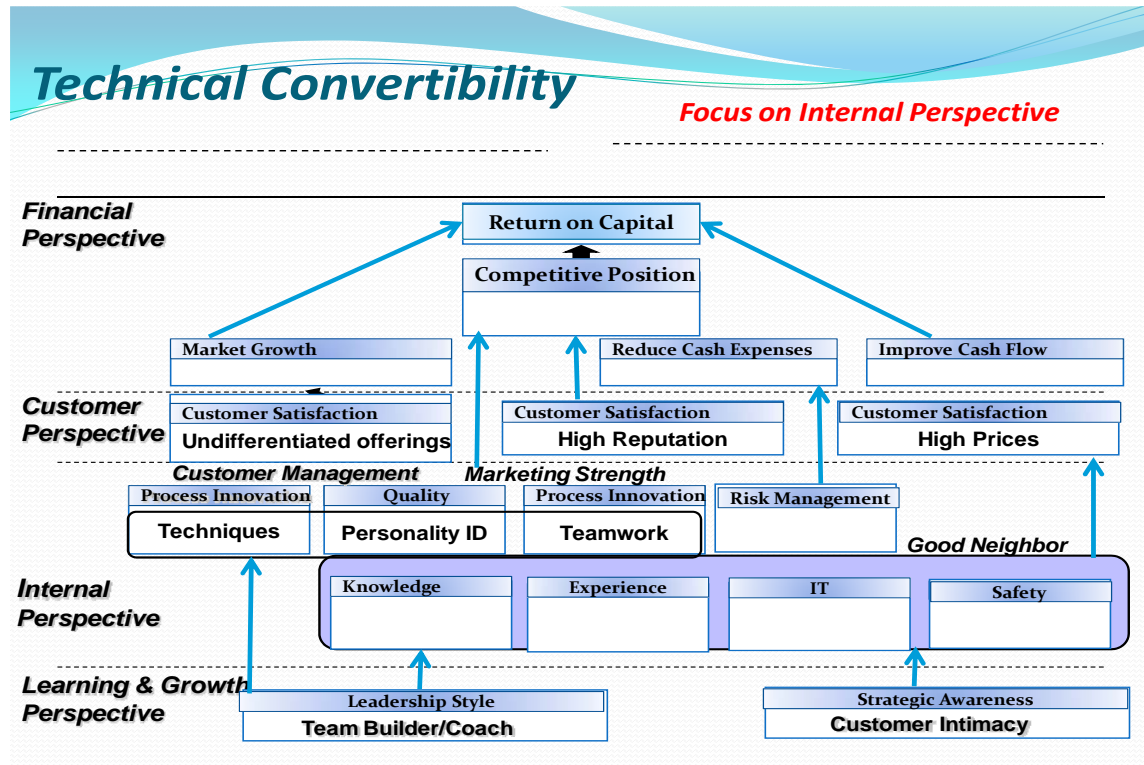


Figure 6.12: Cause – effect diagram for CS4, CS7 and CS8.

On the other hand, CS6 suggests a continuous focus on past mission and policies, which may not suit the present nor the future environment, even though there might be enough capital to sustain the business. They are also focused on productivity and asset utilisation, while attempting to gain revenue representing convertibility of human, cultural and economic capital respectively. This may require the business to create dialoguing and systemising *ba* for new concept formation and innovation through training in ICT. In striving to satisfy customers, CS6, at a late stage in its life cycle, shows that it is bent on complying with specific customer needs and unique solutions to specific problems from the customer perspective, where the core product features and support and service provided are differentiated in an attempt to retain customers, as illustrated in Figure 6.13.

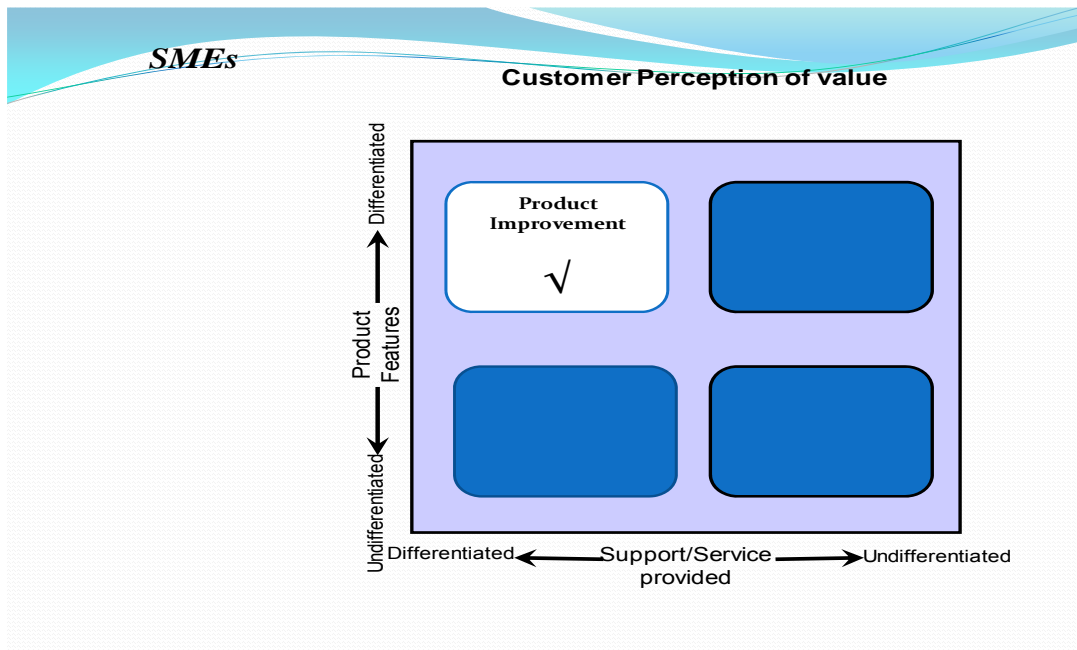


Figure 6.13: Customer perception of value for CS6.

At the customer perspective level, the focus is on high quality of the output through good internal processes, with management focus on processes and alignment with its mission and policies in order to exceed the expectations of customers. However, without good operations management processes, cash flows may prove difficult to control because of a focus on a particular customer base.

The owner-manager of CS6, therefore, in aligning mission to business objectives states that

“...I think things that make businesses successful depend on what kind of industry you are in;, speaking from the business that we are in, a lot of it is about the knowledge that you have and are willing to give to your customer, the advice and support you provide to customers, building relationships and trust and it’s not just about price.” (Owner-manager, CS6; 08/08/12)

She continues by saying

“...when you talk about competitiveness, everybody automatically thinks about price; are you cost effective?, are you cheaper? are basically the questions. I know from experience that our products are not the cheapest and are not the most expensive either but what we do is we get it right and that’s what is important and we are reliable.” (Owner-manager, CS6; 08/08/12)

This shows identification of human, cultural and economic capital in processes but little or no conversion. Even though the owner-manager is cognisant of knowledge, Sparrow (2001) reports that such leaders have made little or no attempt to manage knowledge, making very little analysis of their knowledge practices, and have not considered themselves to be in a position to respond to knowledge challenges.

This was in a context of considering succession planning, which is a delicate stage for identification and convertibility of capital. Research suggests that most SMEs do not manage a succession plan well, leading to loss of jobs and economic decline, especially due to the nature of intangibles. They are at Phase 1 of the process, which can hold structured and qualitative components and read the current business plan for knowledge development. According to Sparrow (2001), the option of a preliminary aspect of a business process can be made on a methodical and complete examination of pressing conditions. On the other hand, the option of a KM and capital convertibility can be the result of discussion among owner-managers, or analysis of perceptions from close understanding of transcripts of interviews. Such a business will require support, as the owner-manager states when considering strategic intent:

“...you cannot stand still, you have to find different ways of doing things, having better and different products to get things moving.” (Owner-manager, CS6; 08/08/12)

Leadership here suggests that the market is very volatile and internal processes are not as strong as suggested by the owner-manager. While things may have worked well in the past, the succession issue also has to be put into perspective. Given high levels of market volatility and technological deficiency, a more radical convertibility is warranted, where business-wide aspects are taken into consideration by identifying the capital elements and working on them with partners to derive benefit and keep the business afloat, as shown in the matrix in Figure 6.14.

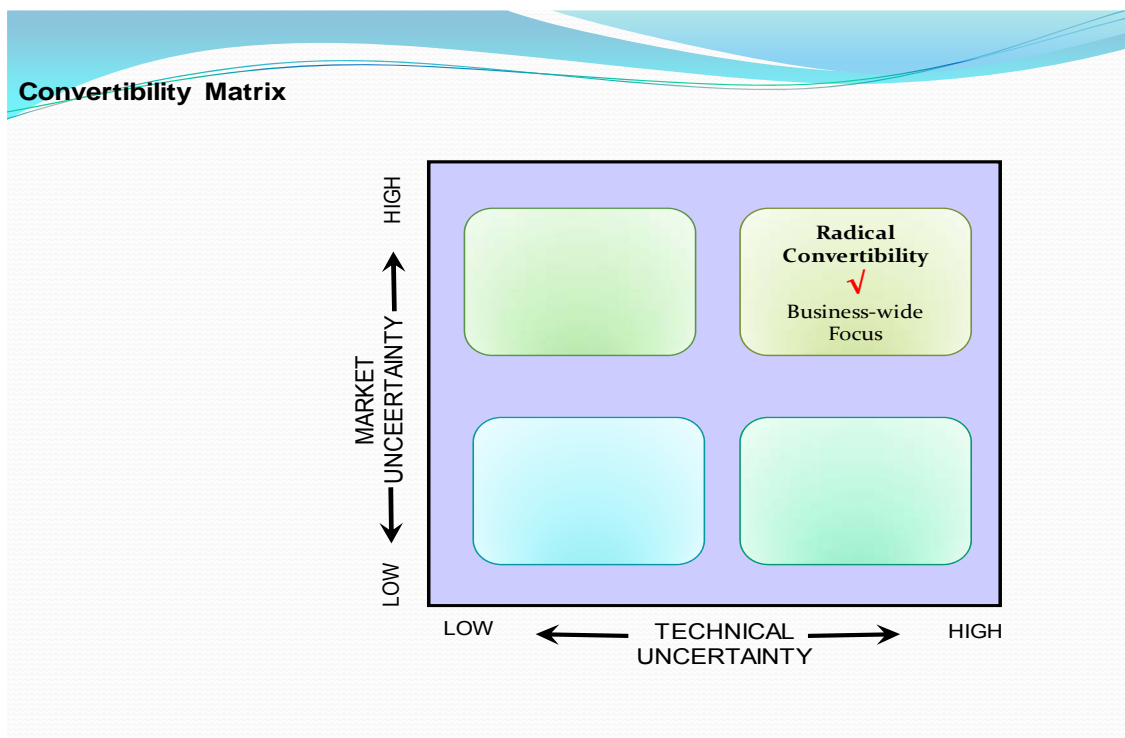


Figure 6.14: Convertibility matrix for CS6

There is therefore room for a new beginning and an opportunity to remake the business. Business leaders under such analysis fall into quadrant D, which represents visual, holistic, intuitive, innovative, conceptual and imaginative thinking and is associated with entrepreneurs, explorers and future-oriented and risk-driven individuals. The main elements here are from the learning and growth perspective, such as competences, values, culture and resources. The analyses show that CS6 is

also adopting a strategic/leadership approach to knowledge management, a reactive approach to strategic thinking and an environmental sensitivity approach to design thinking, corresponding to a more charismatic leadership style.

According to the owner-manager of CS6,

“...a manager has to be the right person, someone who can put a team together and lead it. He/she needs to be motivated and inspired in leading a company because without that they will never be convincing as a manager.”
(Owner-manager, CS6; 08/08/12)

This style can then be used to inspire a new generation of people, processes and customers in order to exceed satisfaction. Some of the identified attributes include inspirators and facilitators in the convertibility process as shown in Figure 6.15.

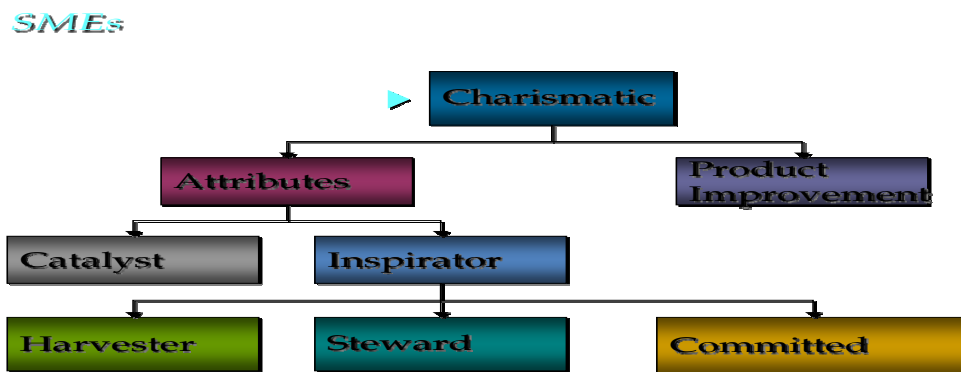


Figure 6.15: SME leadership style for CS6

In the case of CS6, convertibility is needed in learning and growth, internal, customer and financial processes. It therefore requires a radical rethinking of culture and remaking through support as much as possible. A transformation is suggested and reputation will be necessary in convertibility where undifferentiated products are marketed at high margins as in figure 6.16

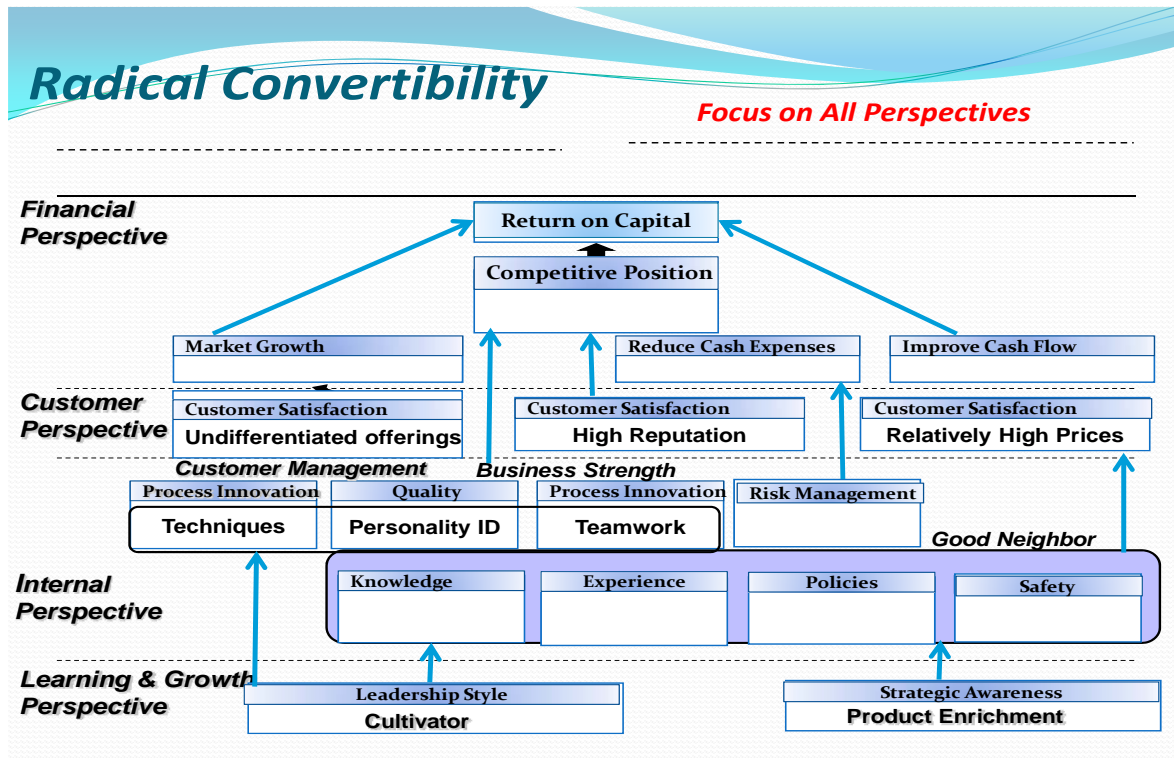


Figure 6.16: Cause – effect diagram for CS6

6.3.3 Summary

Given the above discussion, the proposition that SME performance depends on competitive advantage through the continuous convertibility of intangible resources, and on owner-manager’s traits is well expounded. It has shown the main processes for the case studies for entrepreneurial capital convertibility in a mind map structure based on Kaplan and Norton strategy map and has expounded the convertibility matrix for convertibility focus. Based on owner-managers leadership styles, a whole mind map can be predicted using entrepreneurial capital from cultural, human, through social and to economic capital. This is further enhanced by individual traits for entrepreneurial activity.

6.4 Conceptual framework development

The goal is therefore to move towards a 'learning and co-production-oriented' approach to business, by which owner-managers can be sufficiently flexible and adaptable through aspects such as absorptive capacity. At this level, they will have considered the role of design thinking in their business to a greater extent than other businesses and have placed significantly less emphasis upon analysis of personal understanding and experience, appreciating the knowledge they have and need. It therefore involves engaging in learning from partners/alliances, networks and trade bodies and placing more emphasis upon best practice networks and CoPs. In addition, business planning is important and measurements are lower than others, as they have considered knowledge within operational management and uncertainty management deliberations, suggesting a move towards strategic thinking. They will have gone through phases 1, 2, 3 and 4 of knowledge management implementation. Constant reflection and evaluation will be needed for frequent adaptability in a turbulent economy.

Strategic learning and co-production can be achieved by a detailed consideration of modelling entrepreneurial capital convertibility in SMEs with a distinction between systems and human-oriented approaches and emphasis on absorptive capacity synthesised through operational and strategic use of knowledge. Convertibility of entrepreneurial capital therefore highlights the collaboration and learning orientations of SMEs and their associated implications for development. In considering support initiatives, owner-managers' experience and knowledge can impact upon the approach taken by an SME to a particular management imperative, underlining the centrality of the owner-manager in knowledge management adoption. The model for consideration is therefore an integration of all the processes in SME entrepreneurial capital convertibility, which is captured in the strategy map to communicate the links between culture, leadership processes and customer value proposition, aiding in entrepreneurial capital convertibility.

The conceptual framework shows a mix of human and IT processes in a holistic KM adoption and a need for owner-managers to first fill the gap in knowledge base and systems, and adopt a strategic thinking approach using a mix of leading and lagging measures in the convertibility of their processes, in an efficient and economical way, to effectively satisfy external stakeholders and gain competitive advantage. This is in the context of a dynamic environment, which SMEs have to mirror or seek to change the 'field' by being entrepreneurial and adaptable. This could be accomplished through an understanding of strategy; developing specific, measurable, achievable, reliable and time-bounded objectives; and using measures for strategic implementation. Important here is the matching of customer and management perception of value to a point where action is taken for the satisfaction of customers and there is realisation of entrepreneurial outcomes through personality traits. This therefore suggests that owner-managers will increasingly need to look ahead to solutions by embracing change and consider the need to co-produce with knowledge institutions in order to survive in a dynamic environment depending on continuous reflections, experimentation, organising and sensitivity to opportunity identification, and subsequent exploitation.

Overall, entrepreneurial capital convertibility demonstrates that SME development can usefully be considered in terms of intangible assets and their continuous convertibility in a dynamic economy, providing a comprehensive structure and methodology for intangible cause-effect asset convertibility and valuation, with an emphasis on owner-managers' knowledge and experience. Through interactive and reflective learning, owner-managers can enhance entrepreneurial capital, as it enables them to develop self-awareness and communication skills, and apply knowledge to problem-solving. Convertibility therefore facilitates a reframing and recontextualising of events and facts to create fundamental change in self-awareness and visions through critical thinking for design.

However, this will show differences in times of recession and periods of economic development, which is the view of those suggesting convertibility at high levels and low levels respectively, based on the findings from this thesis. The models are shown below for periods of recession and economic development periods respectively, where the bold lines indicate the focus of SMEs and the kind of entrepreneurial intentions and outcomes owner-managers may be engaged in. The steps in the model involve:

- Being aware of the micro, meso and macro environment or field
- Understanding customers' perceptions and what motivates them to action
- Understanding one's own traits and motivations
- Performing self reflection
- Understanding *ba* and carrying out knowledge audits
- Mind map processes from strategy to operational terms
- Using traits for convertibility of capital to meet customer expectations
- Continuous evaluation (experimenting, reflecting, organising and sensing) and learning in association with key stakeholders for flexibility and adaptability.

The framework shows that SMEs suggesting high convertibility understand the 'field' in which they operate and take into consideration customer behaviours. They know what traits motivate them through their cultural capital and use these in logical decision making by being aware of *ba* and the SECI process. Their strategic thinking and mind maps suggests autonomous leadership, reflection on routines and skills and well developed internal processes, especially in operation management, customer relations and innovation processes for convertibility. These lead to differentiated attributes in products and services and strategies for fixed cost reduction and generating revenue opportunities, as shown in Figure 6.17 and illustrated in dark blue. There is consequently scope for customer acquisition through product/brand development, building relationships and improving image. They therefore show major convertibility in cultural, human and economic capital.

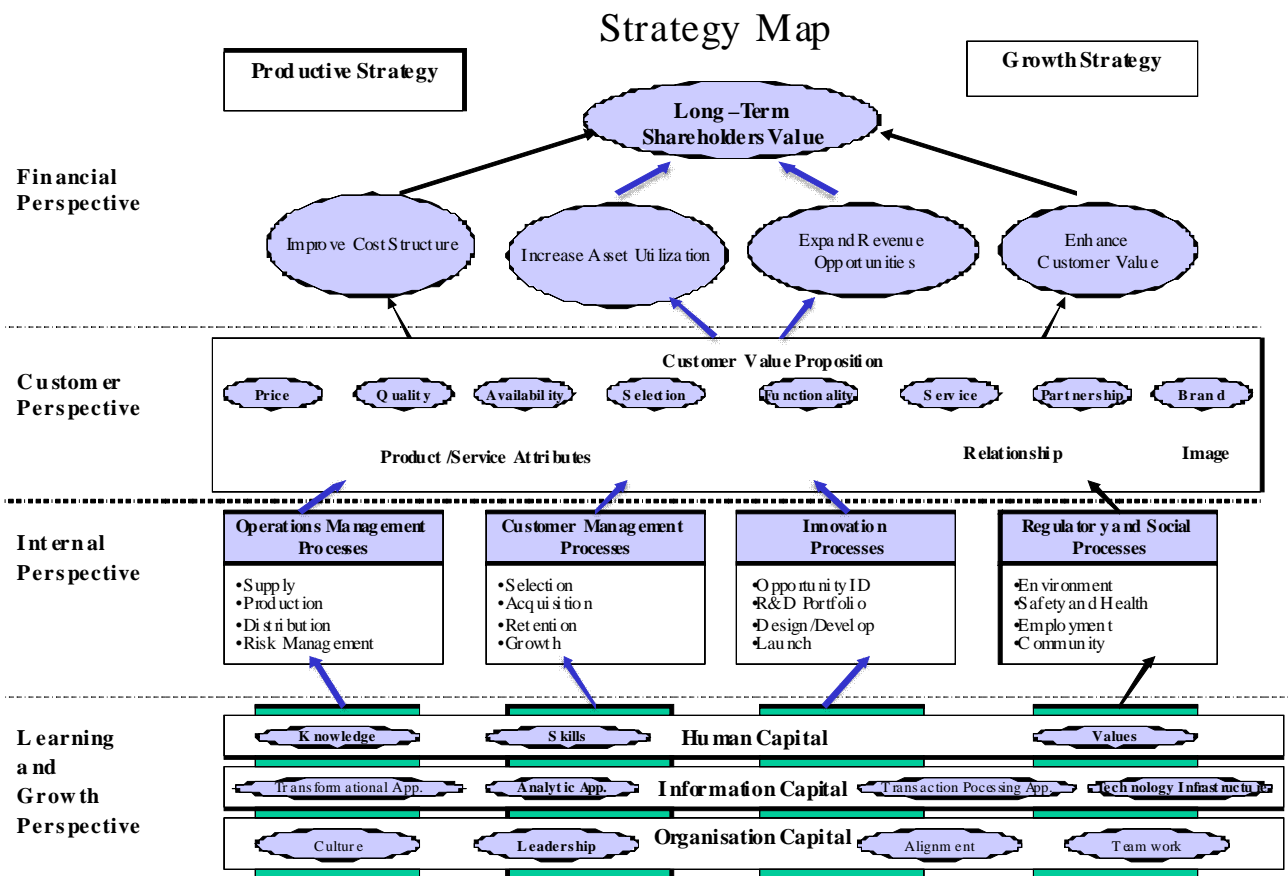


Figure 6.17: Framework adaptations to convertibility at high levels

Figure 6.18 shows that SMEs suggesting low convertibility did not foresee the recession or 'field' and therefore did not consider its effects on customer behaviour. They are therefore still re-examining their processes and may be holding on to existing customers. With a more participative leadership style, brainstorming is still being carried out to decide what to do next, which might involve too much time to generate 'justified beliefs', as they find themselves in chaos caused by turbulence. The focus is therefore on teamwork, knowledge and values leading to regulatory and social processes, which in turn build customer relationships to enhance value and reduce transaction costs, as shown in Figure 6.18 and illustrated by bold arrows. Human capital is therefore still tacit and not yet made explicit in products and

services through processes. Strategies are focused on variable cost reduction to meet the bottom line. There is, however, scope for creating dialoguing and systemising *ba* for new product/brand development, as well as making use of ICT. They show major convertibility in cultural, human and social capital.

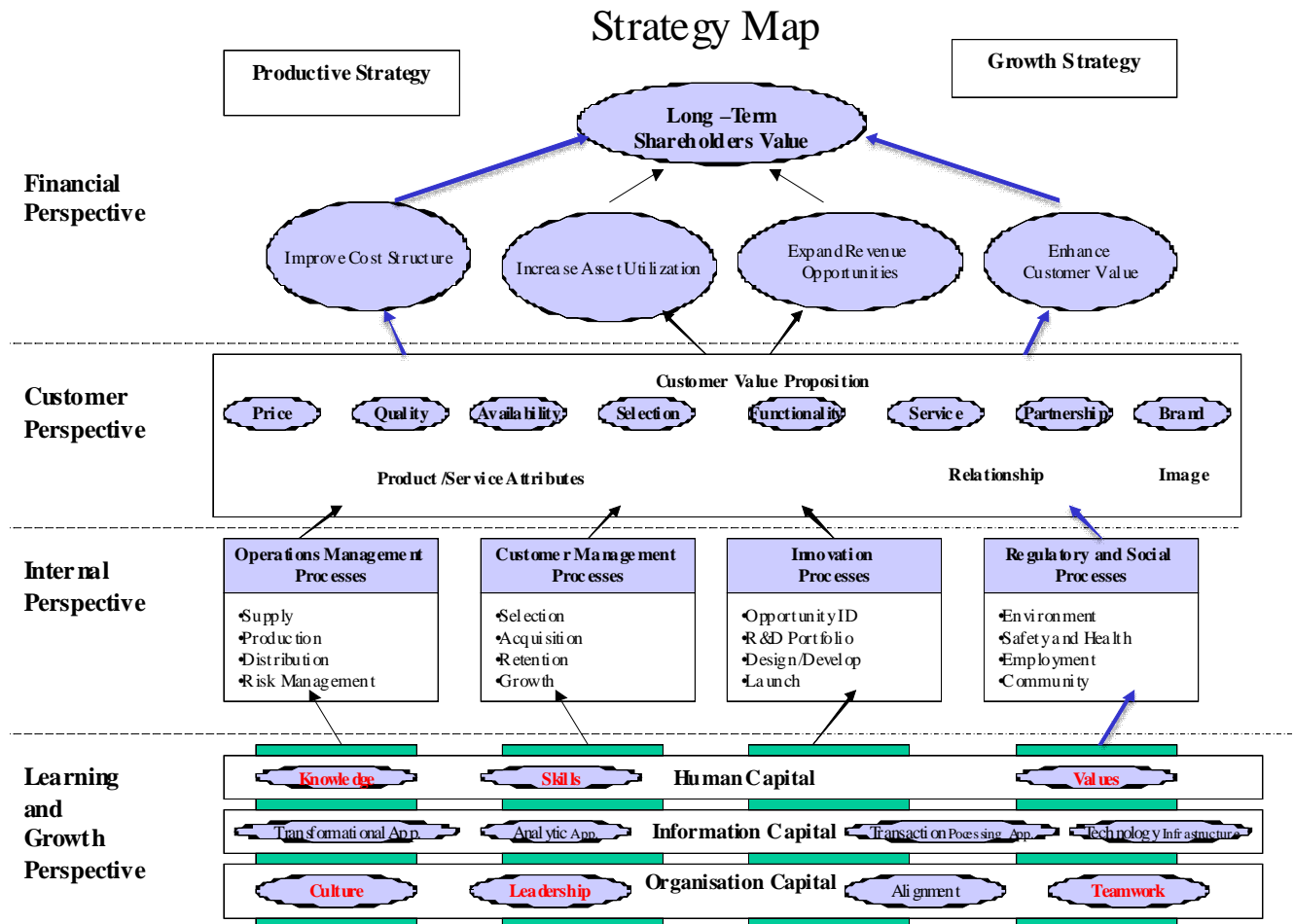


Figure 6.18: Framework adaptations to convertibility at low levels

6.5 Conclusion

This chapter has examined the findings of the research based on quantitative and qualitative data analysis (mix analysis) and established degrees of association between convertibility and intangible assets. The SMEs were ranked according to their level of entrepreneurial capital convertibility and focus was placed on the owner-manager to consider his/her style of leadership and the effects on convertibility. It showed that owner-managers adopting a more standard setting and directive leadership style have a higher level of convertibility and are taking the lead in aspects of managing intangibles and that those adopting a participative and charismatic style have a lower level of capital convertibility and require support in their intangible management. According to the path goal theory, those adopting a standard setting and directive leadership style set tasks that are interesting but ambiguous, non-stressful, unstructured and varied, but participative and charismatic leadership styles may suggest frustrating, boring, stressful, structured and routine tasks.

The following chapter presents the conclusion to the thesis with the implications of the findings, suggests a model based on owner-manager mental model, details its contribution to the body of knowledge and proposes areas for further study.

CHAPTER 7: CONCLUSION: IMPLICATIONS, RECOMMENDATIONS AND INDICATIONS FOR FURTHER STUDIES

7.0 Introduction

This chapter concludes the thesis, demonstrating that it makes a substantial contribution to the knowledge of entrepreneurial capital convertibility in SMEs; it also highlights its limitations and discusses implications for future research. The thesis set out to explore the impact of convertibility on the performance of SMEs, underlining the interwoven and dynamic relationship between various forms of capital and its effect on owner-managers' thinking from their experience and knowledge. A summary of the processes employed in order to outline the focal points of the study in exploring concepts presented in the specialist literature and their relationship to SMEs is made.

7.1 Main findings

The findings suggest that some owner-managers are more entrepreneurial than others by being market-oriented and by considering the convertibility of capital by taking more calculated risks; being proactive and autonomous; supporting innovation; and being competitively cooperative with the aid of experimentation, reflection and organisation. They prefer to be leaders in product and service delivery and to focus on the processes that get things done in knowledge management terms through knowledge systems (specifically accessibility and security); knowledge renewal through learning from customers, competitors and use of the internet; and also support from the benchmarking of their operations. They therefore show high levels of entrepreneurial intention and outcomes (Chell, 2008) compared to owner-managers who display convertibility at lower levels.

Secondly, the analysis suggests a strong association between convertibility and owner-managers' strategic thinking concerning the financial perspective, as

supported by resource based theory (Penrose, 1959; Barney, 1991) and confirmed by previous research that has dealt mainly with economic capital (Baum and Silverman, 2004) for wealth accumulation (Bourdieu, 1986). This is also supported by owner-managers' anticipation of high revenue generation for businesses, indicating convertibility at a high level, with support for strategies of asset utilisation and revenue expansion. In generating this revenue, capital convertibility requires a culture of investing, energising and developing human resources by understanding the needs of internal stakeholders (high organisational capital) and satisfying them. Accordingly, conflicts in work teams must be identified and ideas synthesised for goal congruence. Technology is also associated with convertibility; it is used in knowledge sharing and transfer to create business information, aiding the commercialisation of knowledge captured from suppliers, customers and competitors through effective operations management processes. This may lead to customer acquisition and an effective customer relationship management, with increased innovative and regulatory/social processes, displaying a high association with convertibility. However, systems may become too rigid and fail to adapt to the ever changing technological landscape, thereby stifling innovation. Owner-managers will therefore need to make good use of the internet through internalisation and benchmarking, with an optimistic and proactive outlook for revenue realisation.

Thirdly, in the context of turbulent times, owner-managers need to make quick decisions and meet the changing expectations of customers. As well as being entrepreneurial, they will need to adopt an approach to decision making that yields more value in convertibility of capital, favouring more directive and standard setting approaches. From a design thinking perspective, they rely more on their individual knowledge, as well as sensing new models from the environment to convert into processes. This suggests that they use the internal processes of experimenting, reflecting and organising from their learning to develop new concepts based on a synthesis between *ba* (Nonaka et al., 2000) and 'field' (Chell, 2008) through the mirroring of customers, suppliers and environmental perceptions in work teams. The

discussion on entrepreneurial capital therefore takes into consideration both Schumpeter's and Kirzner's viewpoints in contemporary entrepreneurship literature, with a need for more logical, analytical and synthesising processes to add value. Fundamental to an entrepreneurial owner-manager is the ability to be creative, synthesise different information, solve problems and provide solutions in recognition of any perceived need through the SECI process, *ba* and learning (Nonaka et al 2000). Lastly, the above suggests that those businesses converting at a high level are at phases 3 and 4 of knowledge implementation (Sparrow, 2001). This portrays an incremental and increasingly marketing-led approach to convertibility which can be better effected by the SME learning in the process of change in thought and action.

On the other hand, cases suggesting convertibility at a low level are at phases 1 and 2 of knowledge management implementation (Sparrow, 2001). According to Tether (2005), they indicate a more radical and technical approach to convertibility, with a focus on processes and development of human resources through learning processes in order to survive. Businesses with neither a high nor low level of convertibility have owner-managers with a mix of entrepreneurial attributes, with the potential to improve their level of convertibility and become emerging or realised entrepreneurs (Chell, 2008). This may suggest a fear of the unknown, which may affect performance.

7.2 Discussion

The implications follow the entrepreneurship process, from conceptualisation to implementation of decisions at the micro and macro levels of business operations.

7.2.1 Entrepreneurial and market orientation

Based on the findings, businesses suggesting convertibility at a high level (manufacturing and services sectors) have owner-managers who are mostly male and have technical and professional experience. The owner-managers of CS2 and CS5 have technical backgrounds, with extensive knowledge of information technology and engineering respectively, whilst that of CS3 is a chartered accountant. This corresponds to the symbolic value ascribed to human capital (e.g. Shaw et al., 2009), based on owner-managers' education and experience. They are imaginative, with a strong need for achievement through being hard working and to some extent ruthless; take calculated risk (Timmons and Spinelli 2004); are proactive in their decision making; show a degree of autonomy and a high level of innovation (Lumpkin and Dess, 2001). They take a long term view of business by considering resource convertibility and in the context of a recession, by suggesting the adoption of management styles with which decisions can be taken at short notice. There is also rapid innovation (Tether, 2005) to satisfy customers through constant learning, experimenting, reflecting and organising in the supply chain. They therefore support managing workflows more efficiently and pursuing sales by managing customer relationships and meeting the expectations of existing customers. They are also confident of acquiring more through constant socialisation and internalisation (Nonaka et al., 2000).

These owner-managers also show high levels of alertness (Alvarez and Busenitz, 2001) and awareness of new ideas or models and customer needs; they use technology to their advantage and understand well the environment in which they operate, with high levels of self efficacy and social competence in negotiations,

although this may falsely lead to a sense of invincibility or heroic entrepreneurship. However, they are portrayed as leaders in their industries (CS2 and CS5) and as realised entrepreneurs, indicating a need for a focus on operational excellence, akin to emergent entrepreneur owner-managers with outcomes based on excellent internal processes. With such experience, however, they may be susceptible to 'tunnel vision', leading to rigidity in processes and lack of the flexibility necessary in a constantly changing environment. Given these traits, in a period of recession and technological change, specific knowledge and self awareness are vital for survival, through continuous reflection, learning and development (Matlay, 2009) for positive symbolic capital and for an increase in the stock of inimitable tacit knowledge (Liebeskind, 1996; Grant, 2005). This is linked to internal innovation in products and processes, flexibility, adaptability, efficiency, effectiveness, new products and satisfied customers, as well as good bottom lines for competitive advantage (Lumpkin and Dess, 1996).

On the other hand, businesses suggesting convertibility at a low level (manufacturing and services sectors) have owner-managers with general business experience who favour a more informal participative style of management, in an environment where socialisation is encouraged (Matlay, 2002). However, there is little evidence of dialoguing *ba* (Nonaka et al., 2000) and so less externalisation. Focusing too much on the big picture might lead to lack of attention to detail, which is the building block for strategies. In a recession, businesses may need to go back to the drawing board to reassess strategies, taking into consideration operational issues, technological change and the dynamic environment. CS4 has just gone through an acquisition and is still adjusting to conditions, while CS6, with a female owner, indicates succession planning (Martin, 2007). CS7 and CS8, on the other hand, suggest the need to build up their market profiles, and should focus on social capital dynamics. These businesses show a high need to adjust to the markets, although they portray low levels of knowledge systems/technology adoption. This may be due to their holistic view, even though they seem to be risk adverse, as evident in Shaw et al (2009), where femininity and risk avoidance are associated. They are also less autonomous

and low in innovation, but indicate social competence and intuition. This may also be related to their level of learning and human resource development (Argote and Miron-Spektor, 2011). Considering CS6, Ahl (2002) contend that there are differences between genders in business performance, based on the capital they possess, although this view is still nascent, with no conclusive evidence to reveal the impact of gender on entrepreneurial capital (e.g. Davidsson and Honig, 2003). Overall, this may portray a more reactive stance to opportunities in the supply chain, with short term views and risk failure in turbulent times, as there is focus on tight relationships backwards in the supply chain, rather than the pro-active aspect of customer acquisition to increase market share and revenue. This is supported by more customer intimacy (CS4, CS7 and CS8), both internally and externally, and by product enrichment (CS6) with their limited base, which might be close knit (Portes, 1998), and stifle learning, creativity and innovation in power and control relationships (Adler and Kwon, 2002).

As suggested by Shaw et al. (2009), in their discussion of gender, such owners may use their networks to a lesser extent for business issues. CS1 shows a mix of product enrichment and operational excellence. According to Chell (2008), such owner-managers are mainly unrealised entrepreneurs (CS4, CS7 and CS8) and realised non-entrepreneurs (CS6).

The above supports the suggestion that entrepreneurial capital convertibility will be influenced by owner-managers' personality and knowledge.

7.2.1.1 Summary

The point is therefore highlighted that businesses suggesting higher levels of convertibility portray entrepreneurial traits which help them to think 'out of the box' and are always on a creative edge to look for opportunities and to adapt to the environment, in comparison to those suggesting convertibility at a lower level. Based on their different levels of human capital development, there is a discrepancy in how

social capital is perceived and exploited, leading to varied customer value propositions, which are pivotal to economic capital, which is stated by Bourdieu (1986) to be necessary for the continuous process of convertibility and wealth generation.

7.2.2 Bourdieu's assertion

Based on the assertion by Bourdieu on economic capital and its effect on convertibility, an examination of the findings shows that owner-managers suggesting convertibility at a high level portray positive scores on the financial perspective of strategic thinking, suggesting that they are working to make explicit their business objectives, are more motivated and are actively working towards plans based on the economic resources they have. Availability of economic capital puts owner-managers in an advantageous position, in which they have the tangible resources to use and can confidently think about convertibility in the future. This is shown by the statistics, in which the financial perspective is significantly associated with the convertibility of economic to social and human capital and vice versa. However, sensing the opportunities to invest and the options available requires more entrepreneurial skills to balance the odds of risk and returns. CS2 and CS5 (product/service design) are more concerned with a revenue expanding strategy (sales and workflow management), and with an extraverted and optimistic focus, while CS3 (finance) is focused on asset utilisation to optimise fixed costs, thus portraying a more cautious approach. These owner-managers manage their working capital better and rely more on organic growth, portraying a high locus of control and self efficacy (Sparrow, 1998) in investment options for new market segments (CS2); the environment and carbon footprints (CS5); and capital investments (CS3), through constant reflection and sensitivity to the macro environment when taking calculated risks. This is also suggested by possible motivational issues for stakeholders through a strong association of regulatory and social processes with convertibility. The operational, tactical and strategic processes must, however, be balanced with value

creation, as too much focus on aspects such as return on equity may create business myopia.

On the other hand, owner-managers with convertibility at a low level indicate low levels of economic capital. This may be due to outdated objectives, which may lead to financial problems as a result of the recession. Low economic capital may also be explained by a lack of confidence in capital convertibility in the future through lack of motivational aspects (McClelland, 1961), reflected in low levels of regulatory and social processes. With a focus on past strategies, workflow management may be ignored, such as the processes of the working capital cycle, leading to loss of customers, which is vital for SMEs in periods when payment of invoices to suppliers is a problem (Sparrow and Patel, 2006). Compared to those at a high level, the owner-managers of CS4 and CS7 are involved in reducing variable costs (productivity strategy) and are focused on purchasing and finance, while those of CS6 and CS8 show mixed productivity and revenue enhancement by being focused on customers. The analysis suggests that this is mainly about customer retention with emotional ties and solidarity rather than pro-active customer acquisition strategies, necessary for economic capital acquisition for investment and future convertibility. The owner-manager of CS1 shows a high level of product/service design, suggesting an objective of enhancing customer value, although this is not very explicit. It is, however, neutral from the financial perspective, thereby supporting its outlier status. As such, external funds may be needed for restructuring through partnering with external constituents in order to turn the business around.

7.2.2.1 Summary

The above discussion suggests that confidence in capital convertibility is based on the availability of economic capital. Businesses suggesting a high level of convertibility have these resources and can take calculated risks; they become involved in social activities geared towards making their businesses aware and widening their customer base, thereby generating more wealth, as opposed to those

suggesting convertibility at a low level. However, the chances of success in entrepreneurial projects depend on the perception of opportunities and the different investment options available by balancing the odds between risks and returns. This will be based on the thinking and creative/innovation processes of the owner-managers.

7.2.3 Creativity – Innovation

This is a process that determines symbolic value for customers, a good value proposition leading to economic capital acquisition. Businesses suggesting convertibility at a high level demonstrate more organisational capital (associated with economic to social capital) and information capital (associated with social to economic capital) in strategic thinking, suggesting that they have mastered their craft and are involved in a culture of communication and knowledge sharing for use in well developed technology bases. They therefore ‘know what they know’ (Nonaka et al., 2000) through constant experimentation with, reflection on and organisation of key capabilities based on past and shared experiences, as well as possessing alertness to the environment by converting signals to new concepts and making judgments on action taking based on customer perceptions. There is, however, scope for such communication to lead to misinformation and wrong decision making and must therefore be managed or filtered in careful cost/benefit analyses. Creativity will lead to opportunity seeking (Venkatraman, 1989) as part of a daily process to improve the customer base through innovative processes from identification to launch, in collaboration with others in the supply chain. The focus for such businesses is mainly on using creative chaos (Schumpeter, 1934) to break down routines by exercising *ba* through internalisation and creating a trusting and energetic atmosphere for experiential knowledge sharing, stemming from the owner-manager’s vision and autonomous thinking (Nonaka et al., 2000) and where conflicts are encouraged in a paradigm. These could trigger a spiral of creating dialoguing *ba* for new conceptual knowledge to redefine goals, leading to continuous process of creativity. Confidence

in their 'justified belief' (Nonaka et al., 2000) will then develop and actions transferred to others in the supply chain in idea marketing to meet business objectives. This is further supported by owner/managers' prior experience.

7.2.3.1 Experience

Argote and Miron-Spektor (2011) report that studies show a not too linear association between experience and innovation; where more experience contributes to innovation up to a certain point. An in depth analysis of the experience–innovation continuum aids the disclosure of underlying mechanisms that explain how, when, and why prior experience affects knowledge convertibility in SMEs, which can be captured in processes to increase creativity.

7.2.3.2 Routines

Routines as a framework in which creativity takes place have attracted significant awareness and recently, the argument is that entrepreneurial owner-managers could build on routines and increase the level of capital convertibility and change (Feldman, 2004), although very specific routines may not increase creativity and knowledge. Research stresses the importance of building from routines to direct and provide a framework for entrepreneurial capital convertibility (Miron-Spektor et al., 2011).

7.2.3.3 Emotions

Personal characteristics of owner-manager affect entrepreneurial capital and their convertibility (Miron-Spektor et al., 2011). Research on the function of emotions in entrepreneurial capital convertibility is evident in studies (Sparrow, 1998). Positive and negative dispositions influence the level of creativity through different mechanisms and though the literature dissects these, a synthesis of the positive and negative could enhance entrepreneurial capital convertibility (e.g. Amabile et al., 2005; George and Zhou, 2007).

7.2.3.4 Motivation

Studies also examine motivation and its effect on creativity and as such entrepreneurial capital convertibility. Intrinsic aspects have long been considered to be indispensable for creativity (Amabile, 1997). Argote and Miron-Spektor (2011) suggest that task-oriented owner-managers are intrinsically motivated to excel and highly innovative while extrinsic aspects augment creativity and increase entrepreneurial capital convertibility. Social regulatory processes influence creativity (Higgins, 1997). Motivation to attain rewards improves owner-managers creativity and thought of convertibility. This thesis has confirmed that motivation is key to creativity and convertibility at the owner-manager level has a multiplier effect on work teams and at the SME level.

7.2.3.5 Social capital

Social capital is also important in affecting the creativity innovation continuum and entrepreneurial capital convertibility. Strong network ties can constrain creativity by limiting the exposure to new information. From network density and tie strength theory, McFayden et al., (2009) supporting Lin (2001) report that owner-managers who maintain strong ties with other owner-managers who consist of a sparse network have the greatest creativity and think about convertibility. Ties that bridge unrelated parts of a network augment creativity (Burt, 2004). Furthermore, bridging ties that cover unrelated parts are favourable to creativity when owner-manager who link boundaries share common third-party ties. A new line of research on *ba* and creativity points to knowledge creation through technology (Faraj et al., 2011). This thesis has confirmed that networks are important to owner-managers and SMEs and are instrumental in the process of entrepreneurial capital convertibility.

7.2.3.6 Fluidity

Once knowledge is created, it can be rooted in routines and in the networks created by crossing owner-managers, tools, and tasks. Knowledge rooted in organisational structures, tools and processes can protect SMEs from the negative effects of staff turnover in knowledge retention. Rerup and Feldman (2011) explain how routines develop through experimentation in explicit form, such as standard operating procedures or tacit forms. However, the important point is their transferability. Transfer of knowledge requires identifying factors that assist or restrain the process to describe the disparity observed in the extent of transfer (Argote and Miron-Spektor, 2011).

7.2.3.7 Practical application

Creativity is therefore necessary for SMEs to change through entrepreneurial capital convertibility in dynamic environments. In convertibility circles, knowledge is created and businesses suggesting convertibility at a high level reflect phases 4 and 5 of knowledge management implementation, with the use of maps and diagrams for explicit mental models (Sparrow, 2005). This is based on their experiences and moods, as suggested by a high level of innovation processes (economic, social and human capital convertibility), implying opportunity identification, exploitation and use of resources for execution (Shane, 2003). Their creativity innovation aspects (Ardichvili et al., 2003) suggest that the value creation capability of CS2 and CS5 is defined and value sought is identified, providing them with business information. CS3 is more involved in technological transfer, where the value creation capability is identified, but the value sought is not properly defined. In this sense, they are converting or externalising their knowledge into processes. This is therefore reflected in operations management processes (economic, social and human capital convertibility), indicating effectiveness in the innovation processes in the supply chain with social ties. Creativity - innovation is also substantiated by effective workflow management and high sales, noted by the knowledge base and learning

from suppliers and customers, and a positive symbolic value motivated by a desire for economic capital acquisition. A positive outlook of the general environment is implied (Chen et al., 1998) in marketing, innovation, management, risk-taking and financial control and CS5 goes further to consider regulatory and social processes as key to its business, especially in a context of international trade.

On the other hand, businesses suggesting convertibility at a low level show a decline in information capital but a comparative increase in organisational capital (mainly for CS7), with relatively high levels in human capital (CS4), as they indicate understanding of their teams and working in a participative way. However, it is arguable whether this human capital is being developed to meet the requirements of the times. All the knowledge might, nevertheless, be available to the owner-manager and needs to be communicated mainly by externalisation and combination so that the 'know how' (Nonaka et al., 2000) is effectively transferred. However, with the informal nature of most businesses, such knowledge may always be tacit, but if captured in writing or information technology, it could lead to future convertibility.

These businesses also suggest reliance on old business concepts and may not be reflecting or experimenting enough, leading to a loss of tacit knowledge compared to those at a higher level. Even if this is done, tacit knowledge is not explicit enough to be included in processes, especially in IT, but there is enthusiasm from them and their staff to move to higher levels through culture change and knowledge convertibility, by socialisation internally and externally to improve customer satisfaction. This is reflected in a strong association of convertibility with image and relationships, which, as stated, may be backward in the supply chain and needs more pro-active customer relationship management to gain market share. Knowledge here is still very tacit and processes are less advanced. The creativity to innovation discussion indicates a situation where new dreams need to be communicated for CS7 and CS8, while CS4 and CS6 need to find new ways of creating values by problem solving. They portray more learning from suppliers and less from customers, suggesting a backward approach or more solidarity (Portes

1998) rather than pro-activeness, social competence and risk taking. They may need to use the internal energy of the young and diverse workers to create effective exercising *ba* and develop new ideas to invest in ICT and speed up processes. Their environmental perception is less positive and they need to rethink and reposition to create value for customers and externalise their knowledge to attain business objectives. CS1 shows even lower levels in all aspects of learning, growth and customer perspective but higher levels in customer relationship management, innovation and regulatory and social processes. This indicates that even its product/service design approach is still yielding little value as it strives to acquire more customers.

The above therefore supports the suggestion that entrepreneurial capital convertibility will be influenced by knowledge of systems and learning in SMEs.

7.2.3.8 Summary

Creativity is important for business convertibility and survival. Research on knowledge creation and entrepreneurial capital convertibility could be enhanced from a connection with the literature on creativity. In addition, research on the influence of experience on entrepreneurial capital convertibility is significant in examining the SME learning processes. There is evidence that heterogenous experience contributes to creativity and entrepreneurial capital convertibility by increasing the number of possible options and new combinations of knowledge (Rietzschel et al., 2007). At the same time, it is noted that past experience can stifle innovative thinking, and entrepreneurial capital convertibility (Argote and Miron-Spektor, 2011).

Businesses suggesting convertibility at a high level seem to have a method for organising and using this process to their advantage, compared to businesses suggesting convertibility at a low level. With good processes, motivation and social network ties, a creative owner-manager and team will provide many innovative ideas to take the business forward in an entrepreneurial sense. With many options

available and given the nature of a turbulent environment, it will take an intuitive owner-manager to choose amongst the options and make the right decision on what to do and when to do it.

7.2.4 Decision making

Decision making is the point at which future strategies are won or lost through the choice of options. Businesses suggesting convertibility at a high level show a more causal approach (Sarasvathy, 2001) to decision making, especially CS3, for whom risk taking is less comfortable and a more effectual approach (Sarasvathy, 2001) for owner-managers of CS2 and CS5, who consider both rational and emergent thinking based on the varied cognition, experiences and knowledge that they bring to the entrepreneurial process. They absorb and use chaotic data, synthesise information and employ imagination and intuition (Bird, 1988) in a logical way to arrive at 'justified beliefs' (Nonaka and Takeuchi, 1995) through the use of dynamic capabilities in the entrepreneurial process. CS3 shows a more logical approach to problem solving, while CS2 and CS5 are also logical but with room for diversions to accommodate different situations. Being entrepreneurs in business for over five years, these owner-managers exhibit quadrant D of a visual, holistic, innovative, conceptual and imaginative mind (Arora, 2009). However, from the analysis, the owner-managers of CS2 and CS5 also show characteristics of quadrant A. This has been related to a persuasive convincer and standard setter leadership style. It is also supported by the prominence of information capital and processes in these SMEs. The owner-manager of CS3 suggests a skew to quadrant B. These characteristics therefore correspond to an entrepreneurial orientation of autonomy and locus of control and can be associated with a formal management style (Matlay, 2002) and decision making, with characteristics of being definitive, firm/assertive, cautious and commanding. This style is linked to quick decision making and efficiency in processes, especially in a context of a recession. So as well as using Schumpeter's creative chaos, they are more calculative and time-oriented and fall more under a Kirznerian approach to entrepreneurial capital convertibility.

On the other hand, businesses suggesting convertibility at a low level may be using a more effectual, mixed approach. They might, however, be very risk adverse in a dynamic period and need to understand their environment better. They also indicate traits related to quadrant D, but from their participative approach indicate more of quadrant C, which deals with interpersonal, kinaesthetic, emotional, spiritual, sensory aspects and is associated with value-driven individuals. However, CS4, CS7 and CS8 also display elements of quadrant B, showing a need for business regeneration succession planning (Martin et al., 2002). Emotional, spiritual, sensory and tacit feel play a bigger role, which is still very subconscious and unstructured, as beliefs, emotions, motivations and behaviours are interrelated. If identified, the right kind of knowledge could be created in *ba* and the knowledge convertibility cycle for business performance (Nonaka et al., 2000). The flip side, however, is cognitive dissonance, leading to misinformation and 'unjustified belief' in decision making as they adopt informal styles. This may also lead to ignoring opportunities for convertibility to take place and business myopia. However, such approaches could be used to inspire a new generation of owners in business transfer or succession. CS1 stands right in the middle of the above two levels. Overall, an owner-manager who does not actively participate in the process from opportunity recognition to exploitation is hardly considered an entrepreneur (Chell, 2008).

7.2.4.1 Summary

Businesses suggesting convertibility at a high level seem to be taking logical and quick decisions as they adopt a new formal approach to decision making, compared to the informal nature of those suggesting convertibility at a lower level, for whom there is still considerable consultation needed to improve on 'justified belief', with implications for opportunity identification and innovation. However, the context must be taken into account when considering how decisions on particular options are arrived at, with a feel for the future based on the past. Convertibility must therefore take into consideration the dynamic nature of the environment and factor in hedges to help in flexibility and adaptability.

7.2.5 Dynamic environment adaptation

Change is a constant and businesses must be fluid to survive in a continuously dynamic environment. Considering markets and the use of technology in the case studies, CS2 and CS5 indicate a need for more incremental aspects (Tether, 2005) to entrepreneurial capital convertibility, with a mixed focus tailored to their needs, as markets are more stable and they can boost technological superiority. This can then be represented in the conventional strategy map (Kaplan and Norton, 2004), where flexibility and adaptability are paramount, through a continuous need to think of future solutions and redesign as turbulence increases, based on 'field' (Bourdieu, 1986). According to Sparrow (2001), they are at phase 4 of knowledge management implementation or are a 'knowledge ownership oriented business', with recognition of the challenge of the knowledge economy and the capability to dedicate the time and resources to measure, resource and promote KM developments. They believe that they appreciate the value of particular aspects of their knowledge, emphasising ongoing evaluation of practices, and believe they understand key aspects of personal understanding and experiences that constitute their expertise. At this phase, there seems to be a more precise linking of knowledge to business processes, which can be accomplished through a knowledge map.

Based on the convertibility matrix, CS2 indicates a high growth volatile market matched with low technological uncertainty (Tether, 2005). It will therefore require market convertibility, where social capital is activated to keep the business afloat, and will need to compete, with the focus on business development. Such a business has a high association with models sensed from the environment, convertibility based on various learning styles (Kolb, 1984) and absorptive capacity from networks (Cohen and Levinthal, 1990). Even though logical steps are emphasised, learning takes place in more informal ways. This helps in building new models for continuous flexibility and adaptability, confirmed by convertibility being associated with design thinking variables as learning is a change in thinking and behaviour (Easterby-Smith

et al., 2000) in the organisation that occurs as it acquires experience. Most researchers would agree with the definition of SME learning as a dynamic process in the SME knowledge based on owner manager experience (e.g., Fiol and Lyles, 1985). This knowledge can be made clear by changes in thinking or behaviour. The knowledge may then be embedded in individuals, routines and ICT. It could be measured as changes in performance, such as speed or changes in an organisation's products or services. This can help capture knowledge. Present methods on measuring knowledge by assessing the dynamics of thinking through questionnaires and verbal protocols cannot capture knowledge (Hodgkinson and Sparrow, 2002).

Sparrow (2001) suggests that such businesses fall between the comprehensive and knowledge ownership oriented categories (phase 3); they have captured some aspects of knowledge in knowledge systems with effective access and efficiency for some areas of their operations. Additionally, business process analysis and operationalisation in tight system terms is emphasised. Visualised depiction of processes as well as the sharing of perceptions combines well to provide owner-managers with clear vision. SME learning here can be described in terms of cognitive maps and behaviours at the owner-manager level, dialogue and the development of shared understanding at team level, development of processes at the SME level and continuous renewal. Learning processes can profit from the sequential evaluations of the degree to which different learning sources are used, with reflection upon any gaps in learning. This therefore favours a Kirznerian approach by the owner-manager.

On the other hand, the convertibility matrix suggests that CS4, CS7 and CS8 show low market uncertainty but high technology uncertainty (Tether, 2005). This implies a concentration on technical convertibility, where the focus is on re-designing processes. Sparrow (2001) suggests that such firms are at phase 2, 'comprehensive KM practice businesses', which appear to have taken a comprehensive approach

towards managing their knowledge. They believe they have undertaken more analysis and have the necessary capabilities to deal with knowledge challenges. However, CS6 has high market and high technological uncertainty and needs to take a radical approach to convertibility, with the focus business wide and with concentration on all forms of capital. This is mainly due to succession issues, which may need external support. Such a business is therefore at phase 1 of knowledge implementation, in which a structured and qualitative element with use of structured strategic options or reading of the current business plan is necessary for revision. Accordingly, a preference of a preliminary feature of business process can be made. Alternatively, a discussion between owner-managers or analysis of individual perceptions can be derived from more structured approaches, like psychometric testing and questionnaire assessment. Such a business will require support, as suggested by the owner-manager of CS7, while the notion of strategic intent as learning must be considered.

The above supports the suggestion that entrepreneurial capital convertibility will be influenced by the general economic situation.

7.2.5.1 Summary

SMEs that fail to adapt are likely to die and evolutionary economics suggests that businesses need to evolve in order to survive (e.g. Schumpeter, 1934; Nelson and Winter, 1982). An adaptive approach suggests that organisations are goal-oriented structures that learn from experience by repeating perceived successful behaviours and abandoning unsuccessful ones. SMEs that fail to adapt will perish, possibly due to an inability to learn and change. In comparison, a knowledge development perspective (e.g. Argyris & Schoen, 1978) suggests that businesses are a set of interdependent members with shared patterns of cognition and belief where they can generate new knowledge through entrepreneurial capital convertibility.

With a feel for the changing environment therefore, owner-managers can learn to adapt by being aware of their environment and making the right decisions based on the creativity innovation process in synthesis with other stakeholders for use in effective and efficient processes for a good value proposition in order to generate economic capital. On its own, such economic capital is susceptible to impairment and therefore an entrepreneurial mind is needed to continuously revalue this through constant learning. This suggests that some firms are more engaged than others in entrepreneurial capital convertibility. The thesis has found clear formative factors concerning owner-managers' strategic thinking, knowledge management development, leadership styles and entrepreneurial types in relation to entrepreneurial capital convertibility, as shown in Tables 7.1 and 7.2.

Table 7.1: Summary of businesses suggesting convertibility at a high level

	Knowledge Management	Strategic Thinking	Design Thinking	Leadership Style	Entrepreneurial Type
CS2	Strategic/Planning	Technological	Owner thinking/ ephemeral emergents	Standard Setter	Realised Entrepreneur
CS3	Strategic/Planning	Reactive	Owner thinking/ ephemeral emergents	Directive	Emergent Entrepreneur
CS5	Strategic/Planning	Technological	Owner thinking/ ephemeral emergents	Standard Setter	Realised Entrepreneur

Table 7.1 indicates that in knowledge management terms, all the businesses suggesting convertibility at a high level are adopting a strategic planning style in these terms. The managers favour an autonomous thinking regime based on interaction with outside constituents such as digital and online communities, from

whom they learn new models for business approaches. CS2 and CS5 are technologically oriented and are standard setters in their industries, suggesting quick learning, speed to market delivery and a position of realised entrepreneurs. They therefore do not only rely on previous strategic plans, but are alert and constantly revise these plans to adapt to the environment. CS3, however, portrays a reactive stance to strategic thinking and a more directive leadership style, thereby suggesting a need to develop entrepreneurial behaviours to develop a more emergent entrepreneur who can be converted into a realised entrepreneur by reducing the learning curve effect (Argote, 1999).

Table 7.2: Summary of cases suggesting convertibility at low levels

	Knowledge Management Development	Strategic Thinking	Design Thinking	Leadership Style	Entrepreneurial Type
CS4	Strategic/Planning	Reactive	Sensitivity/Reflecting	Participative	Unrealised Entrepreneur
CS6	Strategic/Planning	Reactive	Experimenting/Reflecting	Charismatic	Realised Non Entrepreneur
CS7	Strategic/Planning	Reactive	Sensitivity/Reflecting	Participative	Unrealised Entrepreneur
CS8	Strategic/Planning	Reactive	Sensitivity/Reflecting	Participative	Unrealised Entrepreneur

Table 7.2 indicates that all the businesses suggesting convertibility at a low level, except CS6, are reactive in strategic thinking, sensitive to their external environment in design thinking, have participative styles and are all unrealised entrepreneurs. The owner-manager of CS6, on the other hand, is also reactive in strategic thinking but portrays a charismatic leadership style and is more of a realised non entrepreneur. However, they all indicate a strategic planning approach to knowledge management development. This demonstrates that such businesses would like to survive, but

have not identified the entrepreneurial behaviours needed to do this in a dynamic environment. This may also be because of a need to stay the same in a niche without a need for growth, such as with family-run businesses. Strategic planning does not impinge on entrepreneurial convertibility. However, to survive in a continuously changing environment, they will all have to take a more proactive approach to their human capital development in both formal and informal ways.

7.3 Significance of the findings

The significance of the findings indicates that it is important for owner-managers to take a holistic view of convertibility by learning and focusing on solutions. In this way they will introduce concepts such as strategic thinking (Kaplan and Norton, 2004) for measuring knowledge assets and design thinking (Brown, 2008) for continuous flexibility and adaptability in searching for business solutions. For successful opportunity identification and convertibility, a convergence of owner-managers' and industry knowledge is critical. In changing times, this also suggests that owner-managers should take a look at themselves and their businesses by managing by perception (Sparrow, 1998), using more conscious analyses rather than relying on outdated processes and practices. This requires constant alertness, taking calculated risks, being socially competent and being aware of the dynamic environment, as these will lead to opportunity recognition and development.

Secondly, the findings support a directive and standard setter style of leadership for entrepreneurial capital identification and convertibility, while considering the valued needs of customers. Those businesses suggesting convertibility at a low level may have to re-think and re-design processes as well as make a radical effort at sustaining business success by being more alert, taking calculated risks, and being innovative and more proactive. With this, knowledge management practices can be introduced into SMEs, using a mapping system that will align strategy in a cause-effect manner and provide management with a clear visualisation of objectives with

room for flexibility and adaptability. This will help in the reproducibility of all forms of capital (Bourdieu, 1986) through continuous investment and option generation, creating wealth in the long term and helping in regional and national economic growth.

Furthermore, the findings provide the opportunity to identify, convert and accumulate capital, which has a major impact on the productivity of an SME, customer perception, performance and economic growth. The opportunity identification process results in increased entrepreneurial traits and subsequent convertibility. Likewise, it is important for owner-managers to understand the importance of the impact of their leadership styles on strategy with regard to entrepreneurial capital convertibility. It is also necessary for them to appreciate the multifaceted relationship between diverse forms of capital, their convertibility and SME performance. While the thesis holds the view that cultural and symbolic capital (Bourdieu 1986; Sparrow 1998, 2001) through management and customer perception is the core of business success, it also confirms Bourdieu's assertion that economic capital is the basis of capital convertibility and this could be more fluid by knowing what owner-managers know and understanding the environment in order to convert internal aspects through constant reflection so as to propose better value for customers. Continuous convertibility and success may then benefit from the prominence of owner-managers' perception, intuition, leadership, values and human capital, but this requires investment in social capital (Stringfellow and Shaw, 2009; Shaw et al., 2009; Goodwin, 2003; Lam et al., 2007; Neira et al., 2008; Davidsson and Honig, 2003) for performance.

Increasingly, rather than relying on themselves, owner-managers' foresight and intuition (Bird, 1988) will also help them realise that continuous learning and co-production (Sparrow, 2005) is necessary for survival in a dynamic world, with constant support from external parties. Discussion of social capital also considers the significance of network quantity and quality (Neira et al., 2008). From a customer

viewpoint, the efficacy of networking are influenced those in the networking process. It is important to assess “what you know” in conjunction with “whom you know” and “who knows you” (van der Linden 2009; p25) so as to continuously reduce transaction costs (Alvarez and Barney, 2004). This suggests that it is vital for owner-managers ‘to know’ the right people and to ‘be known’ by the right people if they are to create personal and social capital within the business environment in a quest to become entrepreneurial. Successful opportunity identification and convertibility are possible with the use of an extended social network, which includes partnerships.

The findings also indicate the need to institute a holistic plan for knowledge management, which capture all the aspects of entrepreneurial capital in SMEs, as depicted in the model. This requires owner-managers to create an environment inwardly and outwardly for self reflection in *ba*, perception, evaluation and action taking, based on their drives in a dynamic, engaging and goal oriented manner (Sparrow, 2001), as shown in Figure 7.1. At a realistic level, the capability to learn and adapt is essential to the performance and future success of SMEs.

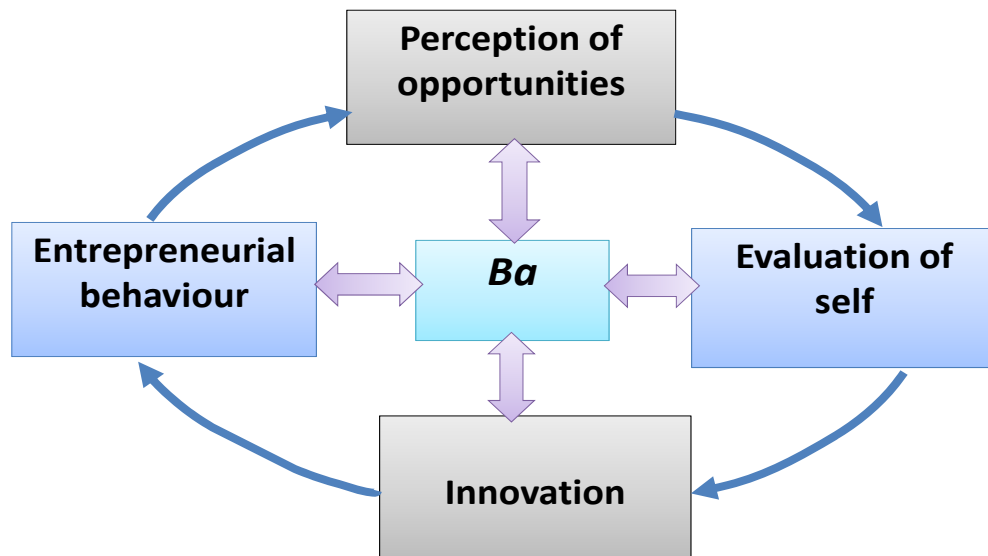


Figure 7.1: Model of the virtuous cycle of convertibility

The model suggests a situation where managers have to manage by perception and improve performance by creating necessary *ba*, which will lead to better understanding of perceptions, self and opportunity evaluation and speed in innovation through the creativity innovation continuum, its continuous thinking leading to understanding and adoption of entrepreneurial behaviours. In this way, customer needs can be easily identified and met through the right convertibility processes, leading to the accumulation of wealth. This will also be facilitated by the SECI process (Nonaka et al., 2000). Once this is analysed, evaluation, reflection and speed of action will be necessary to continuously adapt to the business environment, increasing the motivation to achieve goals. Motivations (traits) will continuously influence *ba* to create this virtuous cycle for both internal and external stakeholders, reinforcing and changing the entrepreneurial behaviours for owner-managers' decision making processes based on their experiences and learning abilities in a dynamic environment to achieve the desired outcomes. This shows the process of capital convertibility from cultural (perceptions and emotions) to human (thinking and

speed of innovation) and social capital into economic capital, which is the main motive of an SME.

7.3.1 Case Studies

For a small business adopting a technological stance to strategic thinking, such as CS2 and CS5, *ba* reflects the owner-managers' prior experiences and a need for routines. This further influences their perception of the environment, their strategic thinking and the way they approach problem solving, creativity and decision making. Information is mainly sourced from interaction with external constituents such as digital and online communities (ephemeral emergents) to make innovations in processes and products considering the right time to market in order to generate revenue. The rapid changes in technology require speed in thinking and innovation through knowledge internalisation and learning (human capital), to be used in the supply chain (social capital) and effectively satisfy customers and increase market share (economic capital), which is supported by a standard setting leadership style given the centrality of owner-managers. To stay competitive, continuous evaluation and re-evaluation of possible opportunities and their impact on customers is necessary, based on owner-managers' strategic thinking. Good results provide intrinsic and extrinsic motivation for these owner-managers to develop entrepreneurial behaviours which continuously influence *ba* and thinking in a virtuous cycle.

7.3.2 Learning Implementation

To implement learning in processes, technical procedures for the development of knowledge bases and knowledge systems are necessary. Adoption of new technological software could enable owner-managers to develop a functioning system as well as a small investment in IT consulting support, which will be valuable. In the course of development, SMEs need to continuously consider learning and uncertainty capabilities in a turbulent environment at micro, meso and macro levels.

Action plans for the next part of the 'business' or 'process' in knowledge terms could then be mapped out, leading to speed in learning and in adopting knowledge projects for entrepreneurial capital convertibility. It may then be appropriate to surmise that SME performance depends on competitive advantage through the continuous convertibility of intangible resources, depending on owner-managers' personality traits and leadership styles. They will therefore need to learn in order to be aware of their environment, anticipate any signals and adapt in order to survive.

7.4 Contribution

From Bourdieu's (1986) discussion of capital convertibility, the concept of entrepreneurial convertibility has been taken up by Firkin (2001, 2003) in his discussion of its overlapping nature. Entrepreneurial capital has been differentiated and studied independently by various researchers such as Stringfellow and Shaw (2009), who have dwelt on this overlapping nature and the importance of social capital; Shaw et al. (2009), with a focus on gender; and Matlay (2009), who focuses on human capital. This thesis considers the previous studies but adds to the body of knowledge by considering entrepreneurial capital with a focus on the experience and learning of owner-managers and the symbolic value attached to it. It therefore takes a more psychological view of how new concepts are derived from the continuous sensing of the environment through the subconscious, experimentation, and reflecting on and organising thoughts, aiding in owner-managers' judgments based on customer perception (Sparrow, 2001) and ascribing value to non-financial capital. This influences the entrepreneurial attitudes of owner-managers of SMEs towards business processes and the effects of these on customer value proposition. The thesis uses knowledge of businesses' core competences from the resource based, knowledge based and dynamic capability theories to articulate the concept of convertibility and its application to SMEs. In particular, it advances and contributes to the understanding of the effects that managers' perception and emotions have on decision making and convertibility of entrepreneurial capital through customer

perception and process convertibility, with synthesis of Bourdieu's original work on mind-body convertibility.

The thesis also indicates a number of implications for owner-managers and future research, highlighting the interwoven nature of capital, and drawing attention to the convertibility between economic, human and social capital through symbolic capital for entrepreneurial opportunities. As much as social capital is necessary for convertibility, it can also impede creativity and knowledge creation. Owner-managers of SMEs will benefit by recognising the value of what stakeholders ascribe to their inert resources, differentiating them and evaluating their linkage to customer perception and performance by adopting knowledge management practices in order to learn, thus moving from single or double loop to triple loop learning. This will help them be aware, to anticipate and to adapt in a dynamic environment. Rather than focusing on lagging elements, the thesis uses leading measures to gauge the convertibility of tangibles into intangibles and vice versa. Considering sectors, it suggests that service firms do not innovate differently, as discussed by Tether (2005), and that with regards to gender (Shaw et al., 2009), there is little difference in the adoption of a holistic view of business, even though the different genders may adopt different approaches to decision making and convertibility based on the possession of capital.

Another contribution is the use of a mixed method approach (Malina and Selto, 2004; Sparrow and Patel, 2006) in contributing to the understanding of entrepreneurial capital and its implications for management perception, teams and matching with opportunity identification for effective supply chain management and firm performance. This therefore considers the external environment in terms of perception and judgment of value, suggesting a need for owner-managers to better manage by perception. The importance of symbolic capital, especially owner-manager perception and decision making, is highlighted, with implications for relevant parties and a need to constantly review processes in markets, services and owner cognition for design thinking (Brown, 2008) and activate necessary entrepreneurial traits. Those SMEs suggesting convertibility at a low level are at risk

and will need to consider their emotional intelligence and strive to convert any negative thoughts to positive ones which will ultimately be manifested in action. If not converted at the latent stage, there is bound to be disaster in the future, not just for the owner-manager, but for others who are associated with them. The thesis therefore takes the view that like energy, the entrepreneurial spirit of owner-managers cannot be destroyed, but effects convertibility from mind to body and vice versa through evolution and devolution for an intelligent organisation; as owner-managers think, so will be the outcome of SME performance.

7.5 Recommendations

The main recommendation from this thesis is the need for SMEs to adopt a model of entrepreneurial capital convertibility as their strategic guide and its implementation through learning and co-producing with partners and valued networks. This is by recognising the entrepreneurial processes associated with creativity; innovation; the dynamic nature of knowledge use in SMEs; the need for flexibility and adaptability through absorptive capacity (Cohen and Levinthal, 1990); and the learning of SMEs, leading to continuous capital convertibility with the support of knowledge institutions and businesses in the supply chain. This will require supportive leadership for human capital development through potential and realised absorptive capacity for organisational learning, in order to convert creative minds into value suitable for customers to attach high symbolic value to it. This can be achieved by taking an inward look at the owner-manager through an audit of knowledge and its processes for mind-body convertibility.

7.5.1 Knowledge audit

A knowledge audit is an essential tool for individuals and as a business diagnostic before knowledge management implementation. It takes a self-reflective approach to reconsider 'what I know', 'what I dare', 'who I know' and 'who knows me' (van der Linden, 2009). It could also be used as a tool for repetitive analysis of knowledge management effectiveness for an organisation and individuals. However, there is a need for a wider knowledge audit in order to assess knowledge gaps and flows, and to serve as a basis for preparing knowledge maps of organisations, thus providing a tool for overcoming the gaps in finding indispensable skills and expertise. In a highly competitive and global environment, SMEs must learn and achieve competitive advantage by relying on collaboration, communication, and management perception. The capacity to understand and exploit individual and group knowledge not only inside the organisation, but also within dynamic networks, will form a new competitive advantage in a networked economy. The knowledge audit process captures these and will increasingly become an important factor for effective knowledge management adoption in SMEs. Audits could be considered not only as a vital step for knowledge management implementation but also as an indispensable tool and method for SMEs to learn, dynamically evaluate and grasp opportunities for exploitation and execution in the entrepreneurship process, using a holistic methodology. In the contemporary world, knowledge makes the only difference and only those SMEs that can assess and exploit internal and external knowledge will survive through consultancy with universities and with the help of governments, as they act as the source of innovation and support regional development through specialist units. Entrepreneurial capability will improve heuristically and experientially but, whilst entrepreneurial skills are socially constructed, a wild spirit and critical free strategic thinking approach could also be learned through real-life schemes that may reduce the learning curve effect, sharpen skills heuristically and experientially to aid in mind-body convertibility, create wealth and survive.

7.6 Limitations

The limitations of this thesis include the small sample size, and restricted sector and geographic coverage. The study should have started to collect data earlier, which would have assisted in carefully exploring the convertibility of entrepreneurial capital. To address this, future research should increase the sample size to enhance the representation of a range of both manufacturing and service sector SMEs, and to control for age of owner-managers.

7.7 Implications for future research

The study has met its objectives by exploring concepts of entrepreneurial capital convertibility dynamics of owner-managers and their relationship to entrepreneurial capital in SMEs, and by developing a model for recommendations to SMEs at all levels of development, with support from external stakeholders. The theoretical and methodological framework developed for this thesis lays the ground works for further studies in entrepreneurial capital. Previous studies have ignored convertibility dynamic interrelationships between the diverse forms of capital and have focused on the impact of social, human, information and intellectual capital on the entrepreneurship process in SMEs. This study has highlighted the crucial role played by owner-managers' perception and symbolic capital in establishing convertibility and performance through process re-design and customer perceptions. This is in the context of a turbulent environment, as well as of institutional factors and their effects on SMEs in opportunity identification; exploitation and organisation of key resources through continuous learning; reflection, re-evaluation and re-designing of processes both internally and externally; and using personal traits for the continuous reproducibility of wealth. However, it shows that some SMEs may lack understanding and investment in cultural capital, which are necessary for convertibility and which may be due to a failure to continuously assess their core capabilities through 'knowing what they know' and implementing these in processes for innovation and marketability along the supply chain to stay competitive. This also indicates a

thought out investment in social capital and the need for owner-managers to be sensitive to the environment they operate within and its impact on becoming entrepreneurial.

Future studies should build on the proposed model and seek to incorporate *ba*, the SECI process, the creation of symbolic capital and the need for adaptability and flexibility in management perceptions and decision making to impact SME performance generally and entrepreneurial capital convertibility in particular. This should be considered in the context of economic growth or recession, using more quantitative data and making comparisons to modify the model. In particular, further studies should concentrate on owner-managers' thinking and leadership styles which are based on personality traits. They could also consider the influence of these traits on the attitudes of individuals when starting businesses either out of a necessity or on an opportunity basis and also their effect on nascent businesses, mirroring the dynamics of entrepreneurial capital convertibility as well as discrepancies due to gender. Convertibility is also different for new succession businesses with respect to saleability and considering different sectors, and this model could be adapted to such areas. Considering the limitations, it is expected that cross national comparative longitudinal studies such as the Global Entrepreneurship Monitor (GEM) studies will shed more light on this area of convertibility and aid in understanding different thought systems and their effects on business success, yielding findings to contribute to the growing knowledge and interest in entrepreneurial capital convertibility and the performance of different economies.

SME learning will also bridge gaps in knowledge implementation. Because learning occurs over time, SME learning and therefore entrepreneurial capital convertibility requires longitudinal data. Furthermore, because learning can co-vary with other elements, methods for ruling out options on learning are required. Methodological enhancement will facilitate the scrutiny of longitudinal data collected. Some researchers have developed ways for investigating organisational learning (Cohen

and Bacdayan, 1994) and knowledge transfer (Kane et al., 2005). Further research on the dynamics of entrepreneurial capital convertibility could benefit from such approaches in their drive to survive.

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APPENDIX A: Stages of Knowledge Management Development in SMEs

Phases in knowledge projects in small firms

Knowledge projects within SMEs progress through several phases. A facilitator may find that participants wish to place more (or less) emphasis upon a particular set of procedures at a particular juncture., but may attempt to assist the group to consider the parallel issues at that time.

Stage 1

Phase 1 can accommodate structured and qualitative elements. It has been noted how structured consideration of strategic options can be useful. An alternative qualitative approach that entailed a reading of the current business plan for knowledge considerations has also been proved useful. Choice of an initial aspect of business process for knowledge development can be made on the basis of systematic and comprehensive analysis of pressing business conditions and centrality of a business process. Alternatively, the choice of project can be the product of a discussion among MDs and managers. Similarly, analysis of individual perceptions and team process characteristics can be derived from close interpretation of transcripts of interviews and group meetings or from more structured approaches including repertory grid procedure, psychometric testing (e.g. MBTI) and questionnaire assessment (e.g. Team Climate Inventory)

Stage 2

Phase 2 can involve formal structured analysis through attempts to value facets of intellectual capital. It can also benefit from less quantitative visualisation of the business in intellectual capital terms as a rhetorical device. Sparrow (2001) notes that the KMC team is exploring the role of an audit of knowledge management practices. The tool that has been developed till date fits quite neatly into the toolkit that the UK business advisers have of health check, benchmarking tools and audits. Initial experience with the approach would also suggest that it can serve as a basic orienting agenda for an introductory awareness-raising discussion. The KMC team have extensive experience of both live facilitation of reflection on group process in addition to asynchronous computer supported qualitative data analysis of verbal and written materials. Both of these sets of skills appear to be of value in the support process. This may raise training and development issues for more extensive (national) support of SMEs using this model.

Stage 3

Phase 3's inclusion of business process analysis can again be operationalised in tight systems terms or less rigorously. The visual depiction of processes (using tools such as maps, flow diagrams etc) appears to be valuable. The sharing of perceptions has been found to work well when supported by models of the causal maps that different individuals appear to have. The consideration of learning processes can benefit from the systematic exploration of the extent to which different learning sources (e.g. customers, best practice networks, suppliers, internet, universities etc as detailed in the KM audit tool) are utilised, together with reflection upon any disconnects in any of the learning loops.

Stage 4

The more precise linking of knowledge (and supporting structure, systems, culture, incentives and broad uncertainty capability) to business processes (in phase 4) can be accomplished through a knowledge map of the kind detailed by Applehans et al (1999). Complementarily, a group model-building session (e.g. Eden and Ackermann, 1998) or a more formal system dynamics model (e.g. Vennix 1996) can be valuable. The more participative approaches have the advantage of providing an opportunity for the exploration of diversity and uncertainty capability. The KMC audit tool can provide a framework to consider the parallel or reinforcing elements of a knowledge management system (e.g. culture and reward systems). These issues are more appropriately considered in the scoping and designing of an enhancement to current systems and practices, rather than as afterthoughts in the implementation of a new system.

Stage 5

The development of knowledge bases and knowledge systems (in Phase 5) is largely a technical process. The latest generation of knowledge management software modules can enable the least technical of managers to develop a functioning system, but a small investment in IT consulting support can be valuable at this stage.

In addition to the technical development issues, the tactical management of the movement towards a revised system (in the broadest sense of the term) appears to be an important consideration. The adoption of a process consultation and action

learning approach means that the developments have been made to particular 'community of practice'. In the course of the development, they are progressively empowered to have considered their own ongoing development (including learning and uncertainty capabilities). Action plans for the next part of the 'business' or 'process' that will be addressed in knowledge terms can be drawn up. The opportunities to benefit from the experience of the team(s) and knowledge projects that have been undertaken to date appear to suggest that the speed of the next cycle of phases may be somewhat faster.

Overall, the KM work with small firms that have been conducted by the KMC suggests that the understanding of the theory and practice of KM can be enriched considerably by detailed consideration of the primary considerations in an SME context.

APPENDIX B: Introductory letter of research intention to SMEs

Professor John Sparrow
Birmingham City Business School
Franchise St
Perry Barr
Birmingham
B42 2SU

Date:

[Title][First][Second]
[Company name]
[Add1]
[Add2]
[Add3]
[Area]
[City]
[Postcode]

Dear [Title][Second]

You may recall that we worked with your company over the summer to identify aspects of business's expertise, capability and management of knowledge. Thank you for your participation and we hope the initial feedback was of use.

We are currently following on and doing some analysis but had one minor omission on the questionnaire concerning convertibility of key resources over the past two years. Rather than taking up your time with a follow on interview, we have designed a matrix for you to put in some figures and return by email

Although this is minor, it is fundamental to the whole research and we will really appreciate your assistance.

Kind regards

Professor John Sparrow
Birmingham City Business School
Tel: 0121 331 5217
email: john.sparrow@bcu.ac.uk

APPENDIX C: Knowledge Management Questionnaire

Initial Self-Assessment of Knowledge Management

Introduction

The Centre for Business Innovation and Enterprise has worked with many businesses to facilitate the development of their knowledge management capability. A key element in our approach is the encouragement of self-questioning. By asking yourself how well your organisation undertakes a particular activity you can come to appreciate many aspects of its practices that you may wish to question and develop.

Our work has indicated that organisations need to consider four sets of things if they are to develop their ability to manage knowledge.

(1) You need to know about the knowledge-in-use in your business.

What is it?

Where does it come from?

Do you know its value?

(2) You need to know about your knowledge system.

How efficiently and effectively can people access the knowledge that they need?

Is it all in the heads of individuals?

Have you embedded knowledge in your systems and procedures effectively?

(3) You need to know about knowledge renewal.

Where has the knowledge come from that has got you ahead?

Will the knowledge you need in the future be acquired effectively?

(4) You need to know about your knowledge economy management capability.

Which of the changes you might need to make will be the most difficult?

Can you manage the changes?

Instructions

Please complete the brief sections asking for details about you and your organisation, and then complete the 60 questions by clicking on one of the alternative radio buttons for each question. If you want to change your answer to any one item, you can just need to click on another of the buttons on that line.

When you have completed all of the questions, please press the button marked 'Submit'.

Terms and Conditions

Please read the following terms and conditions, and indicate you agree to them by ticking the 'Confirmation Box' at the end of this text. You must agree the 'terms and conditions' in order to complete the questionnaire.

The University would like to draw your attention to the following terms:

Privacy Statement

The data collected will not be made available to any third party. All information that is collected will remain confidential and will only be accessible by the researchers only. All data will remain anonymous and will only be recognisable by the researchers who will have coded your personalised data. Only the researchers will be aware of the coded system. All data will be stored on a computer and access will be by encrypted pass code only. The data will be kept securely for a five-year period. This data will be kept in a secure locked filing cabinet at the University.

Security

In terms of protecting the anonymity of participants, information gathered from this study will only ever be reported as an aggregate description. At no time will anyone be able to identify any of the participants by using any reported material.

Data Protection

Data Protection Act 1998: Under the terms of the Data Protection Act 1998 the University undertakes to process any data collected from this survey in a responsible manner. Specifically, it will process any personal data fairly, for the sole purpose of administering and analysing alumni business. The University will also ensure the accuracy and currency of data; documented timescales will be applied to the retention of information held in this connexion.

It is your right at any time to view copies of data held by the University in relation to you. Appropriate measures shall also be taken against accidental loss or damage to your personal data, by means of strictly controlled access to the database. The data shall not be transmitted outside the European Economic Area.

Should you have any query regarding Data Protection Act issues, please contact the research team.

Liability

The University takes reasonable care to provide the correct information described in the documentation. However, information may be altered or withdrawn at any stage owing to circumstances beyond the university's control. Such circumstances include (but are not limited to) industrial action, lack of demand, departure of key personnel, change in Government policy, withdrawal or reduction of funding, change of Law.

The University will accept no liability if the information described by the references is not correct. However, the University will take such steps as are available to it to minimise the effect of any alteration or withdrawal of questions/questionnaire. Such steps may include the offer the availability of participating on an alternative date.

The University welcomes comments on its research projects and outputs.

Accessibility

The Birmingham City University Business School is committed to making the online questionnaire accessible to all. Every effort has been made to make this website accessible.

If you are having difficulties completing the questionnaire please contact the research team and they will be more than happy to provide you with a means of completing the questionnaire to your satisfaction.

If you have any feedback regarding the accessibility or the usability of this site please contact the research team via the contact page.

Feedback

We have developed the questionnaire to help you think about where your organisation is up to in considering each of these issues. We have extensive experience of the patterns of development needs of organisations. We can use our knowledge base to create a unique feedback report for every client.

The feedback the Birmingham City University Business School gives is made on the basis of the information that you have provided via the online questionnaire. If we find that you have made false statement, given ambiguous information or have left out significant information, we cannot be held responsible for the feedback given to you

Legal Notice

Unless otherwise stated, all material on this web site is copyright of Birmingham City University. You have the right to view these pages and information contained within the web site for use by yourself in relation to understanding and completing the questionnaire. You have no other rights of use for information or images contained within this web site. The University makes every effort to ensure that the information contained here is accurate.

Inquiries regarding this website and/or the material on it should be directed to the following address, email or telephone number:

Professor John Sparrow

Birmingham City University

City North Campus

Perry Barr

Birmingham

B42 2SU

Telephone number: 0121 331 5217

Fax number: 0121 331 6366

Email: business.school@bcu.ac.uk

I have read and agree to the above terms and conditions

Your details

Please enter your contact details into the fields below. Your name:

Your job title

Your organisation's name:

Organisation address:

Telephone number:

e-mail address:

Knowledge-in use

Section A: Knowledge Base

This section asks you to rate specific operations of your organisation with respect to standards in your industry. Some of your operations may be state-of-the-art, whilst others may be a bit of a handicap to your organisation. Are any aspects of your organisation world class, i.e. far above your industry standard?

(Please tick one box for each operation) Far below your industry's standard Below your industry's standard
Average for your industry Above your industry's standard Far above your industry's standard

A1. product/service design

A2. purchasing

A3. finance

A4. workflow management (service/production management)

A5. sales (customer relationship management)

Section B: Kinds of Knowledge

This section asks you to consider the extent different kinds of knowledge are in use within your organisation. Specifically, have analyses been undertaken to identify the roles that aspects of knowledge play in each individual's work? For example identifying the knowledge used in procedures and systems, developed skills of your workforce, the 'black arts' of your industry, an approach to work that your workforce has, and personalities of key individuals drive and control the organisation. It is important that an organisation knows the roles that each of these kinds of knowledge plays

(Please tick one box for each aspect) Not at all Very limited Moderate High Very high

B1. to what extent have you identified the personal/technical understanding requirements (acquired through education, training etc.) of key organisational processes?

B2. to what extent have you identified the critical experiences (i.e. occurrences, incidents and events) that are essential or useful for effective performance?

B3. to what extent have you identified the role that high levels of skill (i.e. expertise, familiarity, proficiency) play in effective performance?

B4. to what extent have you identified the extent to which the organisation's culture (i.e. way of doing things) affects each individual's general 'style' of working?

B5. to what extent have you identified the role that an individual's personality plays in their work performance?

Section C: Forms of Thought

This section asks you to consider the extent different kinds of knowledge are in use within your organisation. Specifically, have analyses been undertaken to identify the roles that aspects of knowledge play in each individual's work? For example, identifying the knowledge used in:

Procedures and systems.

Developed skills of your workforce.

The 'black arts' of your industry.

The approach to work that your workforce has.

Personalities of key individuals drive and control the organisation.

It is important that an organisation knows the roles that each of these kinds of knowledge plays.

(Please tick one box for each form) Not at all Very limited Moderate High Very high

C1. verbal/written/text information

C2. non-verbal information (e.g. pictures, diagrams, sounds, touch etc.)

Section D: Types of Thinking

This section asks you to rate the extent your organisation has undertaken analyses to identify the role that each of the following types of thinking plays in specific work situations. Sometimes we need people to think through problems very

logically. Sometimes we need people to be really creative and innovative. We also need to realise that people's emotions may affect the way that they think at work.

(Please tick one box for each type) Not at all Very limited Moderate High Very high

D1. ability to figure things out

D2. ability to be creative

D3. ability to work in the different emotions that can occur at work

Section E: Knowledge Recognition

This section asks to rate the recognition of the role of knowledge in your organisation. Organisations need to know what knowledge they have got, how valuable it is and whether they need to develop/acquire new knowledge.

(Please tick one box for each aspect) Not at all Very limited Moderate High Very high

E1. knowing the knowledge your organisation has got

E2. knowing how valuable different aspects of your capability are

E3. knowing what knowledge your organisation needs

Knowledge System

Section F: Features of Knowledge System

This section asks you to rate the features of systems in your organisation that enable knowledge to be stored and accessed in relation to your industry's standard. Knowledge systems include: centralised filing systems, databases, management information systems, internets, intranets, extranets etc. as well as 'human' approaches (e.g. ask Fred!). How easy is it for staff to access knowledge (e.g. are there sufficient PCs? Are individuals given suitable levels of clearance to use knowledge systems? Who knows what who knows?)

(Please tick one box for each feature) Far below your industry's standard Below your industry's standard Far above your industry's standard
 Average for your industry Above your industry's standard

F1. comprehensiveness (coverage)

F2. accessibility

F3. usefulness of the knowledge to the recipient

F4. efficiency (organisation of information)

F5. security (confidentiality management)

Section G: Knowledge Location

This section asks to assess the ways to which knowledge is embedded within your organisation with respect to your industry's standards. Knowledge can be embedded in an organisation in many different ways such as:

In people through the understanding, experiences, skills, culture and personalities of the workforce.

Through the extent to which business processes and practices are common throughout an organisation.

Through the extent of intellectual property held (e.g. number of patents held).

Through the sophistication and effectiveness of IT systems.

(Please tick one box for each location) Far below your industry's standard Below your industry's standard
 Average for your industry Above your industry's standard Far above your industry's

- G1. people
- G2. business processes and practices
- G3. intellectual property
- G4. information and communication technology-based knowledge system

Knowledge Renewal

Section H: Learning Sources

This section asks you to rate the extent you use information from each of the following sources to keep your practices up with current best practice. An organisation can learn or acquire knowledge from many sources. Often these sources provide knowledge unwittingly and free of charge.

(Please tick one box for each source) Not at all Very limited Moderate High Very high

- H1. customers
- H2. competitors
- H3. suppliers
- H4. partnership/alliance
- H5. networks (e.g. best practice networks, informal networks etc.)
- H6. trade bodies
- H7. internet

Section I: Learning Processes

This section asks you to rate how well your organisation 'build/renew' its knowledge through each of the following processes in its industry. An organisation can develop its knowledge base by using a number of processes where examples include:

- Best practice networks mutually sharing examples of each others best practice with other organisations.
- Either knowingly or anonymously sharing key performance indicators or benchmarks.
- Self-developing communities of practice, groups that manage their own performance and learning needs.

(Please tick one box for each process) Far below your industry's standard Below your industry's standard
 Average for your industry Above your industry's standard Far above your industry's

- I1. best practice networks
- I2. performance indicators/benchmarking
- I3. self-developing 'communities of practice'

Section J: Learning support and evaluation

This section asks you to rate the extent to which each of the following steps has been taken to enhance performance of your organisation in its ability to learn in relation to your industry's standards. Learning within an organisation requires support for individuals to have opportunities to learn through dissemination, e.g. notice boards, bulletin boards, presentations, e-mail, intranets etc. Support is also needed to make learning easier or more effective, e.g. through coaching and mentoring etc. An

organisation needs to evaluate its overall ability to learn and the effectiveness of different approaches and support mechanisms.

(Please tick one box for each aspect) Far below your industry's standard Below your industry's standard
Average for your industry Above your industry's standard Far above your industry's standard

J1. the system for dissemination of best practice and technical knowledge

J2. learning support processes provided (e.g. mentoring/coaching etc.)

J3. the system for evaluating the organisation's ability to learn

Knowledge Economy Management

Section K: Competitive Intelligence

This section asks you to identify how well do you feel you have assessed the impact of the following issues on your organisation in relation to your industry's standards. All organizations are now operating in an environment where new ways of doing business, e.g. e-commerce and e-business are being adopted and becoming the norm. These changes can be seen in the ways your customers and competitors operate and the ways your customers expect you to behave towards them. We are increasingly seeing true globalisation of sourcing by many larger companies and the breaking down of traditional geographical and cultural barriers to how and where you may do business. You may be thinking of ways in which you can concentrate on your real core business by exploiting the knowledge in your organization and outsourcing peripheral aspects of your business.

(Please tick one box for each issue) Far below your industry's standard Below your industry's standard
Average for your industry Above your industry's standard Far above your industry's standard

K1. the knowledge-driven economy

K2. e-commerce

K3. e-business

K4. changes in requirements of your customers

K5. the potential for new ways of working with partners/allies

K6. the need to 'outsource' some aspects of your operations

K7. the need to develop some new operations

Section L: Knowledge management strategy

This section asks you to identify how well does your organisation address each of the following aspects of knowledge management strategy in relation to standards in your industry. A successful knowledge management strategy should encompass strategies to ensure:

the knowledge required to run the business 'day to day' is available to those who need it;

the knowledge that is key to your organisation's purpose is retained and developed;

your organisation develops its overall flexibility and adaptability.

((Please tick one box for each aspect) Far below your industry's standard Below your industry's standard
Average for your industry Above your industry's standard Far above your industry's standard

L1. strategy to ensure the knowledge that is needed in its business processes is available to those who need it

L2. strategy to ensure the knowledge that is most central to your organisation's long term effectiveness/competitiveness is retained/developed

L3. strategy to ensure the processes in the organisation continually question the current ways of doing things and keep the organisation flexible/adaptable

Section M: Change Management Issues

This section asks you to identify how well do you feel your organisation can manage change in improving the knowledge base and knowledge system in relation to your industry's standards. A successful knowledge management strategy requires the consideration and management of many components such as those listed below. Developments in a number of regards need to be implemented and integrated.

(Please tick one box for each consideration) Far below your industry's standard Below your industry's standard
Average for your industry Above your industry's standard Far above your industry's standard

M1. the development of your information and communication technology (ICT)

M2. identifying and securing key business benefits from changes in practices

M3. developing the ability of groups/teams in the organisation to identify and manage their own performance improvements and development needs

M4. strategic analysis and business planning

M5. measuring the key issues

M6. the development of a new 'incentive' system

M7. the development of a new 'knowledge culture'

M8. the ability to be able to divert time and other resources to the analysis and development of improvements

M9. the ability to 'project manage' the necessary improvements

M10. the ability to be able to cope with the unforeseen (emergent) consequences of changing systems and practices

APPENDIX D: Questionnaire on design thinking

Questions upon the intervening period

The approach that the business has taken over the intervening period could be described as:								
2001-2007	Experimenting	3	2	1	-1	-2	-3	Experimenting
	The business constantly tries out new things in informal small- scale ways to figure out ‘what works’							The business tends not to do this. The business has figured out ‘what works’ and pretty much sticks to its plans.
2007-		3	2	1	-1	-2	-3	
2001-2007	Reflecting	3	2	1	-1	-2	-3	Reflecting
	The business engages in continuous reflection on the identity of the firm and the self-identity of its owner(s) i.e. ‘who we are’							The business tends not to do this. The business has learned how to keep itself going and does that.
2007-		3	2	1	-1	-2	-3	
2001-2007	Organising	3	2	1	-1	-2	-3	Organising
	The business continuously engages in pattern-making and pattern-breaking to create systems for ‘what needs to be done now’							The business tends not to do this. The business has figured out the best way to structure its activities and has broadly stuck to it.
2007-		3	2	1	-1	-2	-3	
2001-2007	Sensitivity	3	2	1	-1	-2	-3	Sensitivity
	The business actively searches its environment for even weak signals that might indicate possibilities for it i.e. ‘what it <i>might</i> do’							The business tends not to do this. The business primarily seeks to look at its own practices and do things better.
2007-		3	2	1	-1	-2	-3	

The business's approach in the above regards has been determined by:							
2001-2007	The business individually	0	1	2	3	4	5
2007-		0	1	2	3	4	5
2001-2007	The specific interactions the business has had	0	1	2	3	4	5
2007-		0	1	2	3	4	5
2001-2007	Some of the tentative models and frameworks that the business sensed from its interactions (Ephemeral emergents)	0	1	2	3	4	5
2007-		0	1	2	3	4	5
2001-2007	Some of the basic ways of operating that the business sensed were emerging at different junctures (Stable emergents)	0	1	2	3	4	5
2007-		0	1	2	3	4	5
2001-2007	Fundamental socio-economic issues facing the business	0	1	2	3	4	5
2007-		0	1	2	3	4	5

APPENDIX E: Questionnaire on strategic thinking

Strategy Map (Kaplan and Norton, 2004:11)

Change over time

	2001	2007	2011
Financial perspective	100		
Product/Service Attributes	100		
Relationships	100		
Image	100		
Operations/Management Processes	100		
Customer Management Processes	100		
Innovation Processes	100		
Regulatory and Social Processes	100		
Human Capital	100		
Information Capital	100		
Organisation Capital	100		

APPENDIX F: Interviews Questionnaire

KM for the knowledge economy

Audits of knowledge management development practices in SMEs have identified a range of views upon the ways that businesses may position themselves for the modern economy.

A. We think that the job of management itself may be changing.

Of course the way that the job may change will depend upon some basic issues:

- 1 In the past one of the key attributes we looked for in people might have been hard work or ruthlessness! What do you think the basic 'values' of management might be in the future? (partnership?)
- 2 In the past the keys to business success have been argued to be things like effective cash management, risk management etc. What do you think the key to competitiveness in the future might be? (e.g. clear grasp of core capability, technology)
- 3 The competitive world is also changing. The emphasis in the past was on volume of initial selling. To what extent do you think that relationship selling is assuming greater importance?
- 4 Often businesses have some key principles driving their strategy. In the recent past these have been things such as quality. What do you see as the next major 'force' (fad?) in defining strategic intent (innovation, knowledge density)?
- 5 In the past businesses have placed a lot of emphasis upon individual capability of people (including managers). How important to management in the future do you think team working will be? How important is that a manager is 'right' for the particular business?
- 6 What other major changes in the demands upon managers do you sense?

B. Given the above changes, managers will need to adapt.

1. What do you see as the major ways in which managers will need to adapt?
2. What do you see as your own personal development challenges?
3. How might these best be supported? (e.g. best practice network, e-learning, courses etc.)
4. What is your own 'action plan'?

APPENDIX G: Questionnaire on convertibility

Converting Resources

Instructions:

Using the extent scale below, indicate to what extent in the past two years you have made any conversions of the 10 listed items

- 0 Not at all
- 1 Nominal
- 2 Low
- 3 Moderate
- 4 Considerable
- 5 Very substantial

For example:

1. In the box indicated below as **Blank** indicate using a number (0 – 5) to what extent you have used your *assets* to generate *revenue opportunities*

OR

2. In the box indicated below as **Blank3**, indicate using a number (0 – 5) to what extent you have used your *strategic alignment* to build a good *brand* in the market

- Please do same for the other combinations in **ALL BOXES** and ignore the boxes with an (X). You can overwrite in the boxes labelled **Blank**.

THE MATRIX

To	1	2	3	4	5	6	7	8	9	10
From	Revenue Opp	Asset Use	Functionality	Partnership	Brand	Innovation process	Knowledge	Values	IT App	Strat Align
1 Revenue Opportunities	X									
2 Asset Utilisation	Blank	X								
3 Functionality			X							
4 Partnership				X						
5 Brand					X					
6 Innovation processes						X				
7 Knowledge				Blank2			X			
8 Values								X		
9 IT Applications									X	
10 Strategic Alignment					Blank3					X

Thanks for your help!

APPENDIX H: Independent sample t test

Independent sample t test

Group Statistics					
	Ranking	N	Mean	Std. Deviation	Std. Error Mean
Revenue to Efficiency	Low	4	.00	.000	.000
	High	3	2.00	1.732	1.000
Revenue to Functionality	Low	4	.00	.000	.000
	High	3	2.00	1.732	1.000
Revenue to Partnership	Low	4	.00	.000	.000
	High	3	2.33	1.155	.667
Revenue to Brands	Low	4	.00	.000	.000
	High	3	1.67	1.528	.882
Revenue to innovation	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Revenue to Knowledge	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
Revenue to Values	Low	4	.00	.000	.000
	High	3	2.00	1.000	.577
Revenue to IT	Low	4	.00	.000 ^a	.000
	High	3	3.00	.000 ^a	.000
Revenue to Alignment	Low	4	.00	.000	.000
	High	3	2.33	1.155	.667
Efficiency to Revenue	Low	4	2.25	1.708	.854
	High	3	3.67	.577	.333
Efficiency to Functionality	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Efficiency to Partnerships	Low	4	.00	.000	.000
	High	3	3.00	1.732	1.000
Efficiency to Branding	Low	4	.00	.000	.000
	High	3	2.00	1.000	.577
Efficiency to innovation	Low	4	.00	.000	.000
	High	3	1.33	.577	.333
Efficiency to Knowledge	Low	4	.00	.000	.000

	High	3	2.67	.577	.333
Efficiency to Values	Low	4	.00	.000 ^a	.000
	High	3	2.00	.000 ^a	.000
Efficiency to IT	Low	4	.00	.000	.000
	High	3	3.33	.577	.333
Efficiency to Alignment	Low	4	.00	.000	.000
	High	3	1.67	.577	.333
Functionality to Revenue	Low	4	.00	.000	.000
	High	3	4.00	1.000	.577
Functionality to Efficiency	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Functionality to Partnerships	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
Functionality to Brands	Low	4	.00	.000	.000
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Functionality to Knowledge	Low	3	.00	.000	.000
	High	3	4.00	1.000	.577
Functionality to Values	Low	4	.00	.000	.000
	High	3	3.33	1.528	.882
Functionality to IT	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
Functionality to Alignment	Low	4	.00	.000	.000
	High	3	2.67	1.528	.882
Partnerships to Revenue	Low	4	.00	.000	.000
	High	3	4.00	1.000	.577
Partnerships to Efficiency	Low	4	.00	.000	.000
	High	3	2.33	1.155	.667
Partnerships to Functionality	Low	4	.00	.000	.000
	High	3	3.33	.577	.333
Partnerships to Brands	Low	4	.00	.000	.000
	High	3	2.00	1.000	.577
Partnerships to Innovation	Low	4	.00	.000	.000
	High	3	2.67	1.155	.667
Partnerships to Knowledge	Low	4	.00	.000	.000
	High	3	4.00	1.000	.577
Partnerships to Values	Low	4	.00	.000	.000

	High	3	2.67	1.155	.667
Partnerships to IT	Low	4	.00	.000	.000
	High	3	2.67	.577	.333
Partnerships to Alignment	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Brands to Revenue	Low	4	.00	.000	.000
	High	3	4.00	1.000	.577
Brands to Efficiency	Low	4	.00	.000	.000
	High	3	2.00	1.000	.577
Brands to Functionality	Low	4	.00	.000	.000
	High	3	2.00	1.000	.577
Brands to Partnerships	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
Brands to Innovation	Low	4	.00	.000	.000
	High	3	2.33	.577	.333
Brands to Knowledge	Low	4	.00	.000	.000
	High	3	3.33	.577	.333
Brands to Values	Low	4	.00	.000	.000
	High	3	2.33	1.155	.667
Brands to IT	Low	4	.00	.000	.000
	High	3	2.00	1.000	.577
Brands to Alignment	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Innovation to Revenue	Low	4	.00	.000	.000
	High	3	3.33	1.155	.667
Innovation to Efficiency	Low	4	.00	.000 ^a	.000
	High	3	2.00	.000 ^a	.000
Innovation to Functionality	Low	3	.00	.000	.000
	High	3	2.67	1.155	.667
Innovation to Partnership	Low	4	.00	.000	.000
	High	3	2.33	.577	.333
Innovation to Branding	Low	4	.00	.000	.000
	High	3	2.67	1.155	.667
Innovation to Knowledge	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Innovation to Values	Low	4	.00	.000	.000
	High	3	2.00	1.000	.577
Innovation to IT	Low	3	.00	.000	.000

	High	3	2.33	1.528	.882
Innovation to Alignment	Low	4	.00	.000	.000
	High	3	2.00	1.000	.577
Knowledge to Revenue	Low	4	.00	.000	.000
	High	3	4.33	.577	.333
Knowledge to Efficiency	Low	4	.00	.000	.000
	High	3	3.00	1.732	1.000
Knowledge to Functionality	Low	4	.00	.000 ^a	.000
	High	3	4.00	.000 ^a	.000
Knowledge to Partnerships	Low	4	3.75	.500	.250
	High	3	4.33	.577	.333
Knowledge to Brands	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Knowledge to Innovation	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
Knowledge to Values	Low	4	.00	.000	.000
	High	3	2.67	2.309	1.333
Knowledge to IT	Low	4	.00	.000	.000
	High	3	3.33	.577	.333
Knowledge to Alignment	Low	4	.00	.000	.000
	High	3	3.00	1.732	1.000
Values to Revenue	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
Values to Efficiency	Low	4	.00	.000	.000
	High	3	2.67	1.528	.882
Values to Functionality	Low	4	.00	.000	.000
	High	3	3.67	1.528	.882
Values to Partnerships	Low	4	.00	.000	.000
	High	3	2.67	1.155	.667
Values to Brands	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Values to Innovation	Low	4	.00	.000	.000
	High	3	2.00	2.000	1.155
Values to Knowledge	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
Values to IT	Low	4	.00	.000	.000
	High	3	3.33	.577	.333
Values to Alignment	Low	4	.00	.000	.000

	High	3	3.00	1.000	.577
IT to Revenue	Low	4	.00	.000	.000
	High	3	3.67	1.528	.882
IT to Efficiency	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
IT to Functionality	Low	4	.00	.000	.000
	High	3	2.67	2.309	1.333
IT to Partnerships	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
IT to Brands	Low	4	.00	.000	.000
	High	3	2.33	2.082	1.202
IT to Innovation	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
IT to Knowledge	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
IT to Values	Low	4	.00	.000	.000
	High	3	2.33	1.528	.882
IT to Alignment	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Alignment to Revenue	Low	4	.00	.000	.000
	High	3	3.33	.577	.333
Alignment to efficiency	Low	4	.00	.000	.000
	High	3	3.67	1.155	.667
Alignment to Functionality	Low	4	.00	.000	.000
	High	3	3.33	.577	.333
Alignment to Partnerships	Low	4	.00	.000	.000
	High	3	4.00	1.000	.577
Alignment to Brands	Low	4	3.75	1.893	.946
	High	3	2.67	1.528	.882
Alignment to Innovation	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
Alignment to Knowledge	Low	4	.00	.000	.000
	High	3	3.67	.577	.333
Alignment to Values	Low	4	.00	.000	.000
	High	3	3.67	1.155	.667
Alignment to IT	Low	4	.00	.000	.000
	High	3	3.00	1.000	.577
a. t cannot be computed because the standard deviations of both groups are 0.					

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APPENDIX I: Correlations on design thinking

Correlations on Design Thinking

			Experimentin g	Reflectin g	Organisin g	Sensitivit y	Individu al Business	Specific Interactio ns	Tentativ e Models	Stable Emergent s	Fundament al Socio- Economics
Spearman's rho	Experimentin g	Correlatio n Coefficie nt Sig. (2- tailed) N	1.000 . 8	.710* .048 8	.088 .835 8	.523 .184 8	-.553 .155 8	-.410 .314 8	-.505 .202 8	-.600 .116 8	-.265 .526 8
	Revenue to Efficiency	Correlatio n Coefficie nt Sig. (2- tailed) N	-.117 .783 8	.363 .377 8	-.152 .720 8	-.140 .741 8	.602 .115 8	.397 .330 8	.676 .066 8	-.041 .923 8	.207 .623 8
	Revenue to Functionality	Correlatio n Coefficie nt Sig. (2- tailed) N	-.378 .356 8	.000 1.000 8	-.401 .325 8	-.113 .790 8	.723* .043 8	.686 .060 8	0.873** .005 8	.332 .422 8	.401 .325 8
	Revenue to Partnership	Correlatio n Coefficie nt Sig. (2- tailed) N	-.354 .390 8	.122 .774 8	-.222 .597 8	-.338 .413 8	.606 .112 8	.538 .169 8	.680 .063 8	.097 .820 8	.167 .693 8
	Revenue to Brands	Correlatio n Coefficie nt Sig. (2- tailed) N	-.313 .451 8	.065 .879 8	-.324 .434 8	-.060 .888 8	.723* .045 8	.644 .085 8	0.866** .005 8	.293 .482 8	.442 .273 8
	Revenue to innovation	Correlatio n Coefficie nt Sig. (2- tailed) N	-.313 .451 8	.065 .879 8	.118 .781 8	-.583 .130 8	.194 .645 8	.205 .627 8	.144 .733 8	-.146 .730 8	-.177 .675 8
	Revenue to Knowledge	Correlatio n Coefficie nt	-.378	.000	.045	-.587	.248	.288	.218	-.066	-.134

	Sig. (2-tailed)	.356	1.000	.917	.126	.553	.490	.604	.876	.752
	N	8	8	8	8	8	8	8	8	8
Revenue to Values	Correlation Coefficient	-.188	.194	.265	-.374	.299	.219	.289	-.132	.088
	Sig. (2-tailed)	.657	.646	.526	.362	.472	.602	.488	.756	.835
	N	8	8	8	8	8	8	8	8	8
Revenue to IT	Correlation Coefficient	-.323	.067	.122	-.494	.309	.302	.298	-.060	.000
	Sig. (2-tailed)	.436	.875	.774	.214	.457	.467	.473	.887	1.000
	N	8	8	8	8	8	8	8	8	8
Revenue to Alignment	Correlation Coefficient	-.378	.000	.045	-.429	.407	.420	.436	.066	.134
	Sig. (2-tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	N	8	8	8	8	8	8	8	8	8
Efficiency to Revenue	Correlation Coefficient	-.382	-.292	.427	-.041	.284	.080	.229	.311	.480
	Sig. (2-tailed)	.350	.482	.291	.924	.495	.852	.586	.453	.228
	N	8	8	8	8	8	8	8	8	8
Efficiency to Functionality	Correlation Coefficient	-.174	.300	.055	-.431	.354	.224	.336	-.211	-.082
	Sig. (2-tailed)	.680	.470	.897	.287	.389	.593	.416	.616	.847
	N	8	8	8	8	8	8	8	8	8
Efficiency to Partnerships	Correlation Coefficient	-.118	.365	.056	-.338	.408	.234	.408	-.207	.000
	Sig. (2-tailed)	.781	.374	.896	.413	.315	.576	.315	.623	1.000
	N	8	8	8	8	8	8	8	8	8
Efficiency to Branding	Correlation Coefficient	-.059	.423	-.014	-.189	.504	.281	.541	-.158	.124
	Sig. (2-tailed)	.891	.296	.974	.654	.203	.500	.167	.709	.770
	N	8	8	8	8	8	8	8	8	8
Efficiency to innovation	Correlation Coefficient	-.252	.130	.193	-.376	.354	.302	.364	-.052	.134
	Sig. (2-tailed)	.547	.759	.647	.358	.390	.467	.376	.903	.752

	N	8	8	8	8	8	8	8	8	8
Efficiency to Knowledge	Correlation Coefficient	-.351	.121	-.152	-.532	.406	.370	.405	-.068	-.124
	Sig. (2-tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	N	8	8	8	8	8	8	8	8	8
Efficiency to Values	Correlation Coefficient	-.323	.067	.122	-.494	.309	.302	.298	-.060	.000
	Sig. (2-tailed)	.436	.875	.774	.214	.457	.467	.473	.887	1.000
	N	8	8	8	8	8	8	8	8	8
Efficiency to IT	Correlation Coefficient	-.252	.130	.193	-.376	.354	.302	.364	-.052	.134
	Sig. (2-tailed)	.547	.759	.647	.358	.390	.467	.376	.903	.752
	N	8	8	8	8	8	8	8	8	8
Efficiency to Alignment	Correlation Coefficient	-.354	.122	-.222	-.338	.606	.538	.680	.097	.167
	Sig. (2-tailed)	.390	.774	.597	.413	.112	.169	.063	.820	.693
	N	8	8	8	8	8	8	8	8	8
Functionality to Revenue	Correlation Coefficient	-.293	.181	-.152	-.532	.357	.295	.338	-.144	-.207
	Sig. (2-tailed)	.482	.667	.720	.175	.386	.479	.413	.734	.623
	N	8	8	8	8	8	8	8	8	8
Functionality to Efficiency	Correlation Coefficient	-.117	.363	.055	-.385	.357	.192	.338	-.247	-.083
	Sig. (2-tailed)	.783	.377	.897	.347	.386	.649	.413	.556	.846
	N	8	8	8	8	8	8	8	8	8
Functionality to Partnerships	Correlation Coefficient	-.351	.121	-.152	-.532	.406	.370	.405	-.068	-.124
	Sig. (2-tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	N	8	8	8	8	8	8	8	8	8
Functionality to Brands	Correlation Coefficient	-.252	.130	.193	-.376	.354	.302	.364	-.052	.134
	Sig. (2-tailed)	.547	.759	.647	.358	.390	.467	.376	.903	.752
	N	8	8	8	8	8	8	8	8	8

Functionality to Innovation	Correlation Coefficient	-.313	.065	.118	-.583	.194	.205	.144	-.146	-.177
	Sig. (2-tailed)	.451	.879	.781	.130	.645	.627	.733	.730	.675
	N	8	8	8	8	8	8	8	8	8
Functionality to Knowledge	Correlation Coefficient	-.092	.300	-.124	-.449	.248	.369	.216	-.175	-.196
	Sig. (2-tailed)	.844	.514	.791	.312	.592	.415	.642	.708	.673
	N	7	7	7	7	7	7	7	7	7
Functionality to Values	Correlation Coefficient	-.188	.194	.265	-.478	.194	.132	.144	-.219	-.088
	Sig. (2-tailed)	.657	.646	.526	.231	.645	.756	.733	.602	.835
	N	8	8	8	8	8	8	8	8	8
Functionality to IT	Correlation Coefficient	-.378	.000	.045	-.429	.407	.420	.436	.066	.134
	Sig. (2-tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	N	8	8	8	8	8	8	8	8	8
Functionality to Alignment	Correlation Coefficient	-.410	.060	-.290	-.385	.602	.568	.676	.130	.124
	Sig. (2-tailed)	.314	.887	.486	.347	.115	.141	.066	.759	.770
	N	8	8	8	8	8	8	8	8	8
Partnerships to Revenue	Correlation Coefficient	-.174	.300	.055	-.333	.452	.306	.470	-.129	.082
	Sig. (2-tailed)	.680	.470	.897	.420	.261	.461	.240	.760	.847
	N	8	8	8	8	8	8	8	8	8
Partnerships to Efficiency	Correlation Coefficient	-.059	.423	.055	-.287	.406	.199	.405	-.240	.000
	Sig. (2-tailed)	.891	.296	.897	.491	.319	.637	.319	.567	1.000
	N	8	8	8	8	8	8	8	8	8
Partnerships to Functionality	Correlation Coefficient	-.234	.242	-.014	-.483	.357	.260	.338	-.178	-.124
	Sig. (2-tailed)	.577	.564	.974	.226	.386	.534	.413	.673	.770
	N	8	8	8	8	8	8	8	8	8
Partnerships to Brands	Correlation Coefficient	-.313	.065	.118	-.374	.403	.380	.433	.029	.177

	Coefficient									
	Sig. (2-tailed)	.451	.879	.781	.362	.322	.353	.284	.945	.675
	N	8	8	8	8	8	8	8	8	8
Partnerships to Innovation	Correlation Coefficient	-.252	.130	.193	-.535	.196	.170	.145	-.184	-.134
	Sig. (2-tailed)	.547	.759	.647	.172	.642	.688	.731	.662	.752
	N	8	8	8	8	8	8	8	8	8
Partnerships to Knowledge	Correlation Coefficient	-.313	.065	.118	-.583	.194	.205	.144	-.146	-.177
	Sig. (2-tailed)	.451	.879	.781	.130	.645	.627	.733	.730	.675
	N	8	8	8	8	8	8	8	8	8
Partnerships to Values	Correlation Coefficient	-.252	.130	.193	-.376	.354	.302	.364	-.052	.134
	Sig. (2-tailed)	.547	.759	.647	.358	.390	.467	.376	.903	.752
	N	8	8	8	8	8	8	8	8	8
Partnerships to IT	Correlation Coefficient	-.378	.000	.045	-.429	.407	.420	.436	.066	.134
	Sig. (2-tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	N	8	8	8	8	8	8	8	8	8
Partnerships to Alignment	Correlation Coefficient	-.313	.065	.118	-.374	.403	.380	.433	.029	.177
	Sig. (2-tailed)	.451	.879	.781	.362	.322	.353	.284	.945	.675
	N	8	8	8	8	8	8	8	8	8
Brands to Revenue	Correlation Coefficient	-.291	.180	-.082	-.528	.354	.293	.336	-.143	-.164
	Sig. (2-tailed)	.485	.670	.847	.179	.389	.482	.416	.736	.697
	N	8	8	8	8	8	8	8	8	8
Brands to Efficiency	Correlation Coefficient	-.293	.181	-.152	-.287	.602	.500	.676	.062	.207
	Sig. (2-tailed)	.482	.667	.720	.491	.115	.207	.066	.885	.623
	N	8	8	8	8	8	8	8	8	8
Brands to Functionality	Correlation Coefficient	-.293	.181	-.152	-.287	.602	.500	.676	.062	.207

	Sig. (2-tailed)	.482	.667	.720	.491	.115	.207	.066	.885	.623
	N	8	8	8	8	8	8	8	8	8
Brands to Partnerships	Correlation Coefficient	-.351	.121	-.152	-.532	.406	.370	.405	-.068	-.124
	Sig. (2-tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	N	8	8	8	8	8	8	8	8	8
Brands to Innovation	Correlation Coefficient	-.410	.060	-.221	-.483	.504	.486	.541	.048	.000
	Sig. (2-tailed)	.314	.887	.599	.226	.203	.222	.167	.910	1.000
	N	8	8	8	8	8	8	8	8	8
Brands to Knowledge	Correlation Coefficient	-.234	.242	-.014	-.483	.357	.260	.338	-.178	-.124
	Sig. (2-tailed)	.577	.564	.974	.226	.386	.534	.413	.673	.770
	N	8	8	8	8	8	8	8	8	8
Brands to Values	Correlation Coefficient	-.354	.122	-.222	-.338	.606	.538	.680	.097	.167
	Sig. (2-tailed)	.390	.774	.597	.413	.112	.169	.063	.820	.693
	N	8	8	8	8	8	8	8	8	8
Brands to IT	Correlation Coefficient	-.410	.060	-.290	-.385	.602	.568	.676	.130	.124
	Sig. (2-tailed)	.314	.887	.486	.347	.115	.141	.066	.759	.770
	N	8	8	8	8	8	8	8	8	8
Brands to Alignment	Correlation Coefficient	-.407	.060	-.219	-.431	.549	.524	.604	.088	.082
	Sig. (2-tailed)	.317	.888	.602	.287	.159	.183	.113	.835	.847
	N	8	8	8	8	8	8	8	8	8
Innovation to Revenue	Correlation Coefficient	-.351	.121	-.152	-.532	.406	.370	.405	-.068	-.124
	Sig. (2-tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	N	8	8	8	8	8	8	8	8	8
Innovation to Efficiency	Correlation Coefficient	-.299	.185	-.085	-.443	.464	.385	.483	-.063	.000
	Sig. (2-tailed)	.472	.661	.842	.272	.246	.347	.225	.882	1.000

	N	8	8	8	8	8	8	8	8	8
Innovation to Functionality	Correlation Coefficient	-.671	-.265	.032	-.516	.516	.501	.387	.333	.167
	Sig. (2-tailed)	.099	.566	.946	.235	.235	.252	.391	.465	.721
	N	7	7	7	7	7	7	7	7	7
Innovation to Partnership	Correlation Coefficient	-.441	-.065	-.030	-.535	.354	.413	.364	.059	.000
	Sig. (2-tailed)	.274	.878	.944	.172	.390	.309	.376	.890	1.000
	N	8	8	8	8	8	8	8	8	8
Innovation to Branding	Correlation Coefficient	-.441	-.065	-.030	-.535	.354	.413	.364	.059	.000
	Sig. (2-tailed)	.274	.878	.944	.172	.390	.309	.376	.890	1.000
	N	8	8	8	8	8	8	8	8	8
Innovation to Knowledge	Correlation Coefficient	-.313	.065	.118	-.583	.194	.205	.144	-.146	-.177
	Sig. (2-tailed)	.451	.879	.781	.130	.645	.627	.733	.730	.675
	N	8	8	8	8	8	8	8	8	8
Innovation to Values	Correlation Coefficient	-.438	-.065	-.029	-.478	.403	.454	.433	.102	.088
	Sig. (2-tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	N	8	8	8	8	8	8	8	8	8
Innovation to IT	Correlation Coefficient	-.457	-.262	-.099	-.447	.319	.396	.468	.114	.104
	Sig. (2-tailed)	.303	.571	.833	.315	.486	.380	.289	.808	.824
	N	7	7	7	7	7	7	7	7	7
Innovation to Alignment	Correlation Coefficient	-.438	-.065	-.029	-.478	.403	.454	.433	.102	.088
	Sig. (2-tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	N	8	8	8	8	8	8	8	8	8
Knowledge to Revenue	Correlation Coefficient	-.234	.242	-.014	-.483	.357	.260	.338	-.178	-.124
	Sig. (2-tailed)	.577	.564	.974	.226	.386	.534	.413	.673	.770
	N	8	8	8	8	8	8	8	8	8

Knowledge to Efficiency	Correlation Coefficient	-.354	.122	-.222	-.338	.606	.538	.680	.097	.167
	Sig. (2-tailed)	.390	.774	.597	.413	.112	.169	.063	.820	.693
	N	8	8	8	8	8	8	8	8	8
Knowledge to Functionality	Correlation Coefficient	-.299	.185	-.085	-.443	.464	.385	.483	-.063	.000
	Sig. (2-tailed)	.472	.661	.842	.272	.246	.347	.225	.882	1.000
	N	8	8	8	8	8	8	8	8	8
Knowledge to Partnerships	Correlation Coefficient	-.063	-.195	.282	-.068	-.188	-.074	-.218	.044	.045
	Sig. (2-tailed)	.882	.643	.498	.873	.655	.862	.604	.917	.917
	N	8	8	8	8	8	8	8	8	8
Knowledge to Brands	Correlation Coefficient	-.407	.060	-.219	-.431	.549	.524	.604	.088	.082
	Sig. (2-tailed)	.317	.888	.602	.287	.159	.183	.113	.835	.847
	N	8	8	8	8	8	8	8	8	8
Knowledge to Innovation	Correlation Coefficient	-.351	.121	-.152	-.532	.406	.370	.405	-.068	-.124
	Sig. (2-tailed)	.394	.776	.720	.175	.319	.367	.319	.872	.770
	N	8	8	8	8	8	8	8	8	8
Knowledge to Values	Correlation Coefficient	-.378	.000	-.401	-.113	.723*	.686	.873**	.332	.401
	Sig. (2-tailed)	.356	1.000	.325	.790	.043	.060	.005	.422	.325
	N	8	8	8	8	8	8	8	8	8
Knowledge to IT	Correlation Coefficient	-.441	-.065	-.030	-.535	.354	.413	.364	.059	.000
	Sig. (2-tailed)	.274	.878	.944	.172	.390	.309	.376	.890	1.000
	N	8	8	8	8	8	8	8	8	8
Knowledge to Alignment	Correlation Coefficient	-.354	.122	-.222	-.338	.606	.538	.680	.097	.167
	Sig. (2-tailed)	.390	.774	.597	.413	.112	.169	.063	.820	.693
	N	8	8	8	8	8	8	8	8	8
Values to Revenue	Correlation Coefficient	-.189	.195	.267	-.429	.248	.177	.218	-.177	.000

	Coefficient Sig. (2-tailed) N	.654 8	.643 8	.522 8	.289 8	.553 8	.675 8	.604 8	.675 8	1.000 8
Values to Efficiency	Correlation Coefficient Sig. (2-tailed) N	-.313 .451 8	.065 .879 8	.118 .781 8	-.374 .362 8	.403 .322 8	.380 .353 8	.433 .284 8	.029 .945 8	.177 .675 8
Values to Functionality	Correlation Coefficient Sig. (2-tailed) N	-.188 .657 8	.194 .646 8	.265 .526 8	-.478 .231 8	.194 .645 8	.132 .756 8	.144 .733 8	-.219 .602 8	-.088 .835 8
Values to Partnerships	Correlation Coefficient Sig. (2-tailed) N	-.252 .547 8	.130 .759 8	.193 .647 8	-.376 .358 8	.354 .390 8	.302 .467 8	.364 .376 8	-.052 .903 8	.134 .752 8
Values to Brands	Correlation Coefficient Sig. (2-tailed) N	-.313 .451 8	.065 .879 8	.118 .781 8	-.374 .362 8	.403 .322 8	.380 .353 8	.433 .284 8	.029 .945 8	.177 .675 8
Values to Innovation	Correlation Coefficient Sig. (2-tailed) N	-.500 .207 8	-.221 .598 8	-.219 .603 8	-.265 .526 8	.546 .161 8	.644 .085 8	.660 .075 8	.376 .358 8	.354 .390 8
Values to Knowledge	Correlation Coefficient Sig. (2-tailed) N	-.378 .356 8	.000 1.000 8	.045 .917 8	-.587 .126 8	.248 .553 8	.288 .490 8	.218 .604 8	-.066 .876 8	-.134 .752 8
Values to IT	Correlation Coefficient Sig. (2-tailed) N	-.252 .547 8	.130 .759 8	.193 .647 8	-.535 .172 8	.196 .642 8	.170 .688 8	.145 .731 8	-.184 .662 8	-.134 .752 8
Values to Alignment	Correlation Coefficient Sig. (2-tailed) N	-.313 .451 8	.065 .879 8	.118 .781 8	-.374 .362 8	.403 .322 8	.380 .353 8	.433 .284 8	.029 .945 8	.177 .675 8

	Sig. (2-tailed)	.451	.879	.781	.362	.322	.353	.284	.945	.675
	N	8	8	8	8	8	8	8	8	8
IT to Revenue	Correlation Coefficient	-.438	-.065	-.029	-.478	.403	.454	.433	.102	.088
	Sig. (2-tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	N	8	8	8	8	8	8	8	8	8
IT to Efficiency	Correlation Coefficient	-.313	.065	.118	-.374	.403	.380	.433	.029	.177
	Sig. (2-tailed)	.451	.879	.781	.362	.322	.353	.284	.945	.675
	N	8	8	8	8	8	8	8	8	8
IT to Functionality	Correlation Coefficient	-.433	-.149	-.136	-.207	.552	.608	.667	.338	.408
	Sig. (2-tailed)	.284	.725	.748	.623	.156	.110	.071	.413	.315
	N	8	8	8	8	8	8	8	8	8
IT to Partnerships	Correlation Coefficient	-.378	.000	.045	-.429	.407	.420	.436	.066	.134
	Sig. (2-tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	N	8	8	8	8	8	8	8	8	8
IT to Brands	Correlation Coefficient	-.500	-.221	-.219	-.265	.546	.644	.660	.376	.354
	Sig. (2-tailed)	.207	.598	.603	.526	.161	.085	.075	.358	.390
	N	8	8	8	8	8	8	8	8	8
IT to Innovation	Correlation Coefficient	-.438	-.065	-.029	-.583	.299	.366	.289	.015	-.088
	Sig. (2-tailed)	.278	.879	.945	.130	.472	.373	.488	.973	.835
	N	8	8	8	8	8	8	8	8	8
IT to Knowledge	Correlation Coefficient	-.378	.000	.045	-.429	.407	.420	.436	.066	.134
	Sig. (2-tailed)	.356	1.000	.917	.289	.318	.300	.280	.876	.752
	N	8	8	8	8	8	8	8	8	8
IT to Values	Correlation Coefficient	-.438	-.065	-.029	-.478	.403	.454	.433	.102	.088
	Sig. (2-tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835

	N	8	8	8	8	8	8	8	8	8
IT to Alignment	Correlation Coefficient	-.438	-.065	-.029	-.478	.403	.454	.433	.102	.088
	Sig. (2-tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	N	8	8	8	8	8	8	8	8	8
Alignment to Revenue	Correlation Coefficient	-.234	.242	-.014	-.336	.504	.384	.541	-.055	.124
	Sig. (2-tailed)	.577	.564	.974	.416	.203	.348	.167	.897	.770
	N	8	8	8	8	8	8	8	8	8
Alignment to efficiency	Correlation Coefficient	-.252	.130	.193	-.535	.196	.170	.145	-.184	-.134
	Sig. (2-tailed)	.547	.759	.647	.172	.642	.688	.731	.662	.752
	N	8	8	8	8	8	8	8	8	8
Alignment to Functionality	Correlation Coefficient	-.252	.130	.193	-.535	.196	.170	.145	-.184	-.134
	Sig. (2-tailed)	.547	.759	.647	.172	.642	.688	.731	.662	.752
	N	8	8	8	8	8	8	8	8	8
Alignment to Partnerships	Correlation Coefficient	-.188	.194	.265	-.478	.194	.132	.144	-.219	-.088
	Sig. (2-tailed)	.657	.646	.526	.231	.645	.756	.733	.602	.835
	N	8	8	8	8	8	8	8	8	8
Alignment to Brands	Correlation Coefficient	-.111	-.057	.602	.020	.106	.124	-.321	.163	.236
	Sig. (2-tailed)	.793	.893	.114	.963	.802	.771	.439	.701	.574
	N	8	8	8	8	8	8	8	8	8
Alignment to Innovation	Correlation Coefficient	-.313	.065	.118	-.583	.194	.205	.144	-.146	-.177
	Sig. (2-tailed)	.451	.879	.781	.130	.645	.627	.733	.730	.675
	N	8	8	8	8	8	8	8	8	8
Alignment to Knowledge	Correlation Coefficient	-.378	.000	.045	-.587	.248	.288	.218	-.066	-.134
	Sig. (2-tailed)	.356	1.000	.917	.126	.553	.490	.604	.876	.752
	N	8	8	8	8	8	8	8	8	8

Alignment to Values	Correlation	-.252	.130	.193	-.535	.196	.170	.145	-.184	-.134
	Coefficient									
	Sig. (2-tailed)	.547	.759	.647	.172	.642	.688	.731	.662	.752
	N	8	8	8	8	8	8	8	8	8
Alignment to IT	Correlation	-.438	-.065	-.029	-.478	.403	.454	.433	.102	.088
	Coefficient									
	Sig. (2-tailed)	.278	.879	.945	.231	.322	.259	.284	.809	.835
	N	8	8	8	8	8	8	8	8	8

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX J: Correlations on strategic thinking

Correlations on Strategic Thinking

			Financial Perspective	Product/Service Attributes	Relationships	Image	Innovation Processes	Regulatory and Social Processes	Human Capital	Information Capital	Organisational Capital
Spearman's rho	Revenue to Efficiency	Correlation Coefficient	.657	.473	.074	.129	.483	.302	.219	.575	.630
		Sig. (2-tailed)	.076	.237	.862	.760	.226	.467	.602	.136	.094
		N	8	8	8	8	8	8	8	8	8
	Revenue to Functionality	Correlation Coefficient	.361	.000	-.190	-.308	.425	.000	.331	.405	.723*
		Sig. (2-tailed)	.379	1.000	.651	.459	.294	1.000	.424	.320	.043
		N	8	8	8	8	8	8	8	8	8
	Revenue to Partnership	Correlation Coefficient	.662	.272	.074	-.055	.648	.243	.177	.564	.549
		Sig. (2-tailed)	.074	.514	.861	.897	.082	.561	.675	.145	.158
N		8	8	8	8	8	8	8	8	8	
Revenue to Brands	Correlation Coefficient	.359	.000	-.189	-.305	.344	.065	.281	.346	.717*	
	Sig. (2-tailed)	.383	1.000	.654	.462	.404	.879	.500	.400	.045	
	N	8	8	8	8	8	8	8	8	8	
Revenue to innovation	Correlation Coefficient	.732*	.289	.362	.102	.688	.452	-.188	.425	.015	
	Sig. (2-tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972	
	N	8	8	8	8	8	8	8	8	8	
Revenue to Knowledge	Correlation Coefficient	.700	.218	.310	.022	.709*	.390	-.142	.429	.068	
	Sig. (2-tailed)	.053	.604	.456	.959	.049	.339	.738	.289	.873	
	N	8	8	8	8	8	8	8	8	8	
Revenue to Values	Correlation Coefficient	.657	.144	.252	-.058	.406	.581	-.281	.205	.120	
	Sig. (2-tailed)										
	N										

	Sig. (2-tailed)	.076	.733	.547	.891	.318	.131	.500	.627	.778
	N	8	8	8	8	8	8	8	8	8
Revenue to IT	Correlation Coefficient	.679	.149	.260	-.060	.581	.467	-.194	.325	.123
	Sig. (2-tailed)	.064	.725	.534	.888	.131	.244	.646	.432	.771
	N	8	8	8	8	8	8	8	8	8
Revenue to Alignment	Correlation Coefficient	.587	.000	.143	-.220	.520	.390	-.142	.262	.226
	Sig. (2-tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	N	8	8	8	8	8	8	8	8	8
Efficiency to Revenue	Correlation Coefficient	.690	.065	.421	-.105	.113	.877**	-.283	-.036	.176
	Sig. (2-tailed)	.058	.878	.299	.804	.790	.004	.497	.933	.677
	N	8	8	8	8	8	8	8	8	8
Efficiency to Functionality	Correlation Coefficient	.827*	.537	.330	.257	.668	.480	-.029	.586	.271
	Sig. (2-tailed)	.011	.170	.425	.539	.070	.228	.946	.127	.516
	N	8	8	8	8	8	8	8	8	8
Efficiency to Partnerships	Correlation Coefficient	.803*	.544	.282	.247	.589	.487	.000	.564	.352
	Sig. (2-tailed)	.016	.163	.498	.556	.124	.221	1.000	.145	.392
	N	8	8	8	8	8	8	8	8	8
Efficiency to Branding	Correlation Coefficient	.727*	.541	.177	.218	.483	.423	.102	.553	.504
	Sig. (2-tailed)	.041	.167	.675	.605	.226	.296	.809	.155	.203
	N	8	8	8	8	8	8	8	8	8
Efficiency to innovation	Correlation Coefficient	.625	.073	.198	-.139	.425	.520	-.236	.206	.173
	Sig. (2-tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	N	8	8	8	8	8	8	8	8	8
Efficiency to Knowledge	Correlation Coefficient	.797*	.473	.280	.184	.834*	.302	.102	.693	.322
	Sig. (2-tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437

	N	8	8	8	8	8	8	8	8	8
Efficiency to Values	Correlation Coefficient	.679	.149	.260	-.060	.581	.467	-.194	.325	.123
	Sig. (2-tailed)	.064	.725	.534	.888	.131	.244	.646	.432	.771
	N	8	8	8	8	8	8	8	8	8
Efficiency to IT	Correlation Coefficient	.625	.073	.198	-.139	.425	.520	-.236	.206	.173
	Sig. (2-tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	N	8	8	8	8	8	8	8	8	8
Efficiency to Alignment	Correlation Coefficient	.662	.272	.074	-.055	.648	.243	.177	.564	.549
	Sig. (2-tailed)	.074	.514	.861	.897	.082	.561	.675	.145	.158
	N	8	8	8	8	8	8	8	8	8
Functionality to Revenue	Correlation Coefficient	.832*	.608	.332	.320	.863**	.302	.132	.767*	.301
	Sig. (2-tailed)	.010	.110	.422	.440	.006	.467	.756	.026	.469
	N	8	8	8	8	8	8	8	8	8
Functionality to Efficiency	Correlation Coefficient	.832*	.608	.332	.320	.644	.484	.000	.612	.301
	Sig. (2-tailed)	.010	.110	.422	.440	.085	.225	1.000	.107	.469
	N	8	8	8	8	8	8	8	8	8
Functionality to Partnerships	Correlation Coefficient	.797*	.473	.280	.184	.834*	.302	.102	.693	.322
	Sig. (2-tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437
	N	8	8	8	8	8	8	8	8	8
Functionality to Brands	Correlation Coefficient	.625	.073	.198	-.139	.425	.520	-.236	.206	.173
	Sig. (2-tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	N	8	8	8	8	8	8	8	8	8
Functionality to Innovation	Correlation Coefficient	.732*	.289	.362	.102	.688	.452	-.188	.425	.015
	Sig. (2-tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972
	N	8	8	8	8	8	8	8	8	8

Functionality to Knowledge	Correlation Coefficient	.806*	.492	.164	.192	.797*	.300	-.082	.620	.120
	Sig. (2-tailed)	.029	.262	.725	.680	.032	.514	.862	.137	.798
	N	7	7	7	7	7	7	7	7	7
Functionality to Values	Correlation Coefficient	.732*	.289	.362	.102	.531	.581	-.281	.315	.015
	Sig. (2-tailed)	.039	.488	.378	.811	.175	.131	.500	.447	.972
	N	8	8	8	8	8	8	8	8	8
Functionality to IT	Correlation Coefficient	.587	.000	.143	-.220	.520	.390	-.142	.262	.226
	Sig. (2-tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	N	8	8	8	8	8	8	8	8	8
Functionality to Alignment	Correlation Coefficient	.657	.270	.074	-.054	.717*	.181	.219	.612	.546
	Sig. (2-tailed)	.076	.517	.862	.898	.045	.667	.602	.107	.162
	N	8	8	8	8	8	8	8	8	8
Partnership to Revenue	Correlation Coefficient	.757*	.403	.227	.108	.552	.480	-.029	.483	.368
	Sig. (2-tailed)	.030	.323	.589	.799	.156	.228	.946	.225	.369
	N	8	8	8	8	8	8	8	8	8
Partnership to Efficiency	Correlation Coefficient	.797*	.608	.280	.306	.556	.484	.029	.582	.378
	Sig. (2-tailed)	.018	.110	.502	.461	.152	.225	.945	.130	.356
	N	8	8	8	8	8	8	8	8	8
Partnership to Functionality	Correlation Coefficient	.832*	.541	.332	.259	.746*	.423	.015	.641	.273
	Sig. (2-tailed)	.010	.167	.422	.536	.034	.296	.973	.086	.513
	N	8	8	8	8	8	8	8	8	8
Partnership to Brands	Correlation Coefficient	.583	.000	.142	-.218	.438	.452	-.188	.205	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	N	8	8	8	8	8	8	8	8	8
Partnership to	Correlation	.738*	.291	.365	.103	.614	.520	-.236	.373	.015

Innovation	Coefficient	.037	.484	.374	.809	.105	.186	.573	.363	.972
	Sig. (2-tailed)	.8	.8	.8	.8	.8	.8	.8	.8	.8
Partnerships to Knowledge	Correlation Coefficient	.732*	.289	.362	.102	.688	.452	-.188	.425	.015
	Sig. (2-tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972
	N	.8	.8	.8	.8	.8	.8	.8	.8	.8
Partnerships to Values	Correlation Coefficient	.625	.073	.198	-.139	.425	.520	-.236	.206	.173
	Sig. (2-tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	N	.8	.8	.8	.8	.8	.8	.8	.8	.8
Partnerships to IT	Correlation Coefficient	.587	.000	.143	-.220	.520	.390	-.142	.262	.226
	Sig. (2-tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	N	.8	.8	.8	.8	.8	.8	.8	.8	.8
Partnerships to Alignment	Correlation Coefficient	.583	.000	.142	-.218	.438	.452	-.188	.205	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	N	.8	.8	.8	.8	.8	.8	.8	.8	.8
Brands to Revenue	Correlation Coefficient	.827*	.537	.330	.257	.814*	.360	.058	.688	.271
	Sig. (2-tailed)	.011	.170	.425	.539	.014	.381	.891	.059	.516
	N	.8	.8	.8	.8	.8	.8	.8	.8	.8
Brands to Efficiency	Correlation Coefficient	.657	.270	.074	-.054	.571	.302	.132	.509	.546
	Sig. (2-tailed)	.076	.517	.862	.898	.140	.467	.756	.198	.162
	N	.8	.8	.8	.8	.8	.8	.8	.8	.8
Brands to Functionality	Correlation Coefficient	.657	.270	.074	-.054	.571	.302	.132	.509	.546
	Sig. (2-tailed)	.076	.517	.862	.898	.140	.467	.756	.198	.162
	N	.8	.8	.8	.8	.8	.8	.8	.8	.8
Brands to Partnerships	Correlation Coefficient	.797*	.473	.280	.184	.834*	.302	.102	.693	.322

	Sig. (2-tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437
	N	8	8	8	8	8	8	8	8	8
Brands to Innovation	Correlation Coefficient	.727 [*]	.338	.177	.034	.790 [*]	.242	.146	.641	.420
	Sig. (2-tailed)	.041	.413	.675	.936	.020	.564	.730	.086	.301
	N	8	8	8	8	8	8	8	8	8
Brands to Knowledge	Correlation Coefficient	.832 [*]	.541	.332	.259	.746 [*]	.423	.015	.641	.273
	Sig. (2-tailed)	.010	.167	.422	.536	.034	.296	.973	.086	.513
	N	8	8	8	8	8	8	8	8	8
Brands to Values	Correlation Coefficient	.662	.272	.074	-.055	.648	.243	.177	.564	.549
	Sig. (2-tailed)	.074	.514	.861	.897	.082	.561	.675	.145	.158
	N	8	8	8	8	8	8	8	8	8
Brands to IT	Correlation Coefficient	.657	.270	.074	-.054	.717 [*]	.181	.219	.612	.546
	Sig. (2-tailed)	.076	.517	.862	.898	.045	.667	.602	.107	.162
	N	8	8	8	8	8	8	8	8	8
Brands to Alignment	Correlation Coefficient	.688	.268	.124	-.041	.727 [*]	.240	.145	.586	.465
	Sig. (2-tailed)	.059	.520	.769	.924	.041	.567	.731	.127	.245
	N	8	8	8	8	8	8	8	8	8
Innovation to Revenue	Correlation Coefficient	.797 [*]	.473	.280	.184	.834 [*]	.302	.102	.693	.322
	Sig. (2-tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437
	N	8	8	8	8	8	8	8	8	8
Innovation to Efficiency	Correlation Coefficient	.779 [*]	.414	.233	.111	.717 [*]	.370	.060	.602	.379
	Sig. (2-tailed)	.023	.308	.578	.793	.045	.367	.888	.114	.355
	N	8	8	8	8	8	8	8	8	8
Innovation to Functionality	Correlation Coefficient	.710	.000	.167	-.248	.659	.529	-.198	.300	.300
	Sig. (2-tailed)	.074	1.000	.721	.592	.107	.222	.671	.513	.513

	N	7	7	7	7	7	7	7	7	7
Innovation to Partnership	Correlation Coefficient	.625	.073	.198	-.139	.661	.325	-.094	.373	.173
	Sig. (2-tailed)	.098	.864	.638	.742	.074	.432	.824	.363	.682
	N	8	8	8	8	8	8	8	8	8
Innovation to Branding	Correlation Coefficient	.625	.073	.198	-.139	.661	.325	-.094	.373	.173
	Sig. (2-tailed)	.098	.864	.638	.742	.074	.432	.824	.363	.682
	N	8	8	8	8	8	8	8	8	8
Innovation to Knowledge	Correlation Coefficient	.732 [*]	.289	.362	.102	.688	.452	-.188	.425	.015
	Sig. (2-tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972
	N	8	8	8	8	8	8	8	8	8
Innovation to Values	Correlation Coefficient	.583	.000	.142	-.218	.594	.323	-.094	.315	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	N	8	8	8	8	8	8	8	8	8
Innovation to IT	Correlation Coefficient	.506	-.087	.369	-.196	.576	.239	.147	.231	.128
	Sig. (2-tailed)	.247	.852	.416	.674	.176	.606	.752	.619	.785
	N	7	7	7	7	7	7	7	7	7
Innovation to Alignment	Correlation Coefficient	.583	.000	.142	-.218	.594	.323	-.094	.315	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	N	8	8	8	8	8	8	8	8	8
Knowledge to Revenue	Correlation Coefficient	.832 [*]	.541	.332	.259	.746 [*]	.423	.015	.641	.273
	Sig. (2-tailed)	.010	.167	.422	.536	.034	.296	.973	.086	.513
	N	8	8	8	8	8	8	8	8	8
Knowledge to Efficiency	Correlation Coefficient	.662	.272	.074	-.055	.648	.243	.177	.564	.549
	Sig. (2-tailed)	.074	.514	.861	.897	.082	.561	.675	.145	.158
	N	8	8	8	8	8	8	8	8	8

Knowledge to Functionality	Correlation Coefficient	.779*	.414	.233	.111	.717*	.370	.060	.602	.379
	Sig. (2-tailed)	.023	.308	.578	.793	.045	.367	.888	.114	.355
	N	8	8	8	8	8	8	8	8	8
Knowledge to Partnerships	Correlation Coefficient	.474	.073	.397	.000	.236	.586	-.362	-.032	-.339
	Sig. (2-tailed)	.235	.864	.330	1.000	.573	.127	.378	.941	.412
	N	8	8	8	8	8	8	8	8	8
Knowledge to Brands	Correlation Coefficient	.688	.268	.124	-.041	.727*	.240	.145	.586	.465
	Sig. (2-tailed)	.059	.520	.769	.924	.041	.567	.731	.127	.245
	N	8	8	8	8	8	8	8	8	8
Knowledge to Innovation	Correlation Coefficient	.797*	.473	.280	.184	.834*	.302	.102	.693	.322
	Sig. (2-tailed)	.018	.237	.502	.663	.010	.467	.809	.057	.437
	N	8	8	8	8	8	8	8	8	8
Knowledge to Values	Correlation Coefficient	.361	.000	-.190	-.308	.425	.000	.331	.405	.723*
	Sig. (2-tailed)	.379	1.000	.651	.459	.294	1.000	.424	.320	.043
	N	8	8	8	8	8	8	8	8	8
Knowledge to IT	Correlation Coefficient	.625	.073	.198	-.139	.661	.325	-.094	.373	.173
	Sig. (2-tailed)	.098	.864	.638	.742	.074	.432	.824	.363	.682
	N	8	8	8	8	8	8	8	8	8
Knowledge to Alignment	Correlation Coefficient	.662	.272	.074	-.055	.648	.243	.177	.564	.549
	Sig. (2-tailed)	.074	.514	.861	.897	.082	.561	.675	.145	.158
	N	8	8	8	8	8	8	8	8	8
Values to Revenue	Correlation Coefficient	.700	.218	.310	.022	.472	.586	-.283	.262	.068
	Sig. (2-tailed)	.053	.604	.456	.959	.237	.127	.496	.531	.873
	N	8	8	8	8	8	8	8	8	8
Values to Efficiency	Correlation Coefficient	.583	.000	.142	-.218	.438	.452	-.188	.205	.224
	Sig. (2-tailed)									

	Coefficient									
	Sig. (2-tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	N	8	8	8	8	8	8	8	8	8
Values to Functionality	Correlation Coefficient	.732*	.289	.362	.102	.531	.581	-.281	.315	.015
	Sig. (2-tailed)	.039	.488	.378	.811	.175	.131	.500	.447	.972
	N	8	8	8	8	8	8	8	8	8
Values to Partnerships	Correlation Coefficient	.625	.073	.198	-.139	.425	.520	-.236	.206	.173
	Sig. (2-tailed)	.098	.864	.638	.742	.294	.186	.573	.624	.682
	N	8	8	8	8	8	8	8	8	8
Values to Brands	Correlation Coefficient	.583	.000	.142	-.218	.438	.452	-.188	.205	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	N	8	8	8	8	8	8	8	8	8
Values to Innovation	Correlation Coefficient	.273	-.330	-.144	-.531	.375	.074	.054	.135	.410
	Sig. (2-tailed)	.513	.425	.734	.175	.360	.862	.900	.750	.313
	N	8	8	8	8	8	8	8	8	8
Values to Knowledge	Correlation Coefficient	.700	.218	.310	.022	.709*	.390	-.142	.429	.068
	Sig. (2-tailed)	.053	.604	.456	.959	.049	.339	.738	.289	.873
	N	8	8	8	8	8	8	8	8	8
Values to IT	Correlation Coefficient	.738*	.291	.365	.103	.614	.520	-.236	.373	.015
	Sig. (2-tailed)	.037	.484	.374	.809	.105	.186	.573	.363	.972
	N	8	8	8	8	8	8	8	8	8
Values to Alignment	Correlation Coefficient	.583	.000	.142	-.218	.438	.452	-.188	.205	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	N	8	8	8	8	8	8	8	8	8
IT to Revenue	Correlation Coefficient	.583	.000	.142	-.218	.594	.323	-.094	.315	.224

	Sig. (2-tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	N	8	8	8	8	8	8	8	8	8
IT to Efficiency	Correlation Coefficient	.583	.000	.142	-.218	.438	.452	-.188	.205	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.278	.261	.657	.627	.594
	N	8	8	8	8	8	8	8	8	8
IT to Functionality	Correlation Coefficient	.276	-.333	-.145	-.537	.289	.149	.000	.073	.414
	Sig. (2-tailed)	.508	.420	.731	.170	.488	.725	1.000	.864	.308
	N	8	8	8	8	8	8	8	8	8
IT to Partnerships	Correlation Coefficient	.587	.000	.143	-.220	.520	.390	-.142	.262	.226
	Sig. (2-tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	N	8	8	8	8	8	8	8	8	8
IT to Brands	Correlation Coefficient	.273	-.330	-.144	-.531	.375	.074	.054	.135	.410
	Sig. (2-tailed)	.513	.425	.734	.175	.360	.862	.900	.750	.313
	N	8	8	8	8	8	8	8	8	8
IT to Innovation	Correlation Coefficient	.657	.144	.252	-.058	.719*	.323	-.094	.425	.120
	Sig. (2-tailed)	.076	.733	.547	.891	.045	.436	.825	.294	.778
	N	8	8	8	8	8	8	8	8	8
IT to Knowledge	Correlation Coefficient	.587	.000	.143	-.220	.520	.390	-.142	.262	.226
	Sig. (2-tailed)	.126	1.000	.736	.601	.187	.339	.738	.531	.591
	N	8	8	8	8	8	8	8	8	8
IT to Values	Correlation Coefficient	.583	.000	.142	-.218	.594	.323	-.094	.315	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	N	8	8	8	8	8	8	8	8	8
IT to Alignment	Correlation Coefficient	.583	.000	.142	-.218	.594	.323	-.094	.315	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594

	N	8	8	8	8	8	8	8	8	8
Alignment to Revenue	Correlation Coefficient	.727*	.338	.177	.034	.571	.423	.015	.487	.420
	Sig. (2-tailed)	.041	.413	.675	.936	.140	.296	.973	.221	.301
	N	8	8	8	8	8	8	8	8	8
Alignment to efficiency	Correlation Coefficient	.738*	.291	.365	.103	.614	.520	-.236	.373	.015
	Sig. (2-tailed)	.037	.484	.374	.809	.105	.186	.573	.363	.972
	N	8	8	8	8	8	8	8	8	8
Alignment to Functionality	Correlation Coefficient	.738*	.291	.365	.103	.614	.520	-.236	.373	.015
	Sig. (2-tailed)	.037	.484	.374	.809	.105	.186	.573	.363	.972
	N	8	8	8	8	8	8	8	8	8
Alignment to Partnerships	Correlation Coefficient	.732*	.289	.362	.102	.531	.581	-.281	.315	.015
	Sig. (2-tailed)	.039	.488	.378	.811	.175	.131	.500	.447	.972
	N	8	8	8	8	8	8	8	8	8
Alignment to Brands	Correlation Coefficient	-.319	-.706	-.476	-.678	-.583	.230	-.750*	-.735*	-.186
	Sig. (2-tailed)	.442	.051	.233	.065	.129	.585	.032	.038	.659
	N	8	8	8	8	8	8	8	8	8
Alignment to Innovation	Correlation Coefficient	.732*	.289	.362	.102	.688	.452	-.188	.425	.015
	Sig. (2-tailed)	.039	.488	.378	.811	.060	.261	.657	.294	.972
	N	8	8	8	8	8	8	8	8	8
Alignment to Knowledge	Correlation Coefficient	.700	.218	.310	.022	.709*	.390	-.142	.429	.068
	Sig. (2-tailed)	.053	.604	.456	.959	.049	.339	.738	.289	.873
	N	8	8	8	8	8	8	8	8	8
Alignment to Values	Correlation Coefficient	.738*	.291	.365	.103	.614	.520	-.236	.373	.015
	Sig. (2-tailed)	.037	.484	.374	.809	.105	.186	.573	.363	.972
	N	8	8	8	8	8	8	8	8	8

Alignment to IT	Correlation Coefficient	.583	.000	.142	-.218	.594	.323	-.094	.315	.224
	Sig. (2-tailed)	.130	1.000	.738	.604	.121	.436	.825	.447	.594
	N	8	8	8	8	8	8	8	8	8

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX K: Correlations on knowledge management

Correlations on Knowledge Management

			Personal/technical Understanding	Critical Experiences	Comprehensiveness	Accessibility	Comprehensiveness	Accessibility	Security	Customers	Competitors	Internet
Spearman's rho	Revenue to Efficiency	Correlation Coefficient	-.410	-.602	-.708*	-.634	-.708*	-.634	.616	-.068	.635	.410
		Sig. (2-tailed)	.314	.115	.050	.091	.050	.091	.104	.874	.091	.314
		N	8	8	8	8	8	8	8	8	8	8
Revenue to Functionality		Correlation Coefficient	-.378	-.723*	-.571	-.713*	-.571	-.713*	.904**	.000	.873**	.378
		Sig. (2-tailed)	.356	.043	.139	.047	.139	.047	.002	1.000	.005	.356
		N	8	8	8	8	8	8	8	8	8	8
Revenue to Partnership		Correlation Coefficient	-.589	-.606	-.713*	-.639	-.713*	-.639	.620	.136	.640	.589
		Sig. (2-tailed)	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
		N	8	8	8	8	8	8	8	8	8	8
Revenue to Brands		Correlation Coefficient	-.375	-.717*	-.567	-.707*	-.567	-.707*	.896**	.000	.866**	.375
		Sig. (2-tailed)	.360	.045	.143	.050	.143	.050	.003	1.000	.005	.360
		N	8	8	8	8	8	8	8	8	8	8
Revenue to innovation		Correlation Coefficient	-.750*	-.194	-.567	-.265	-.567	-.265	.000	.433	.072	.750*
		Sig. (2-tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
		N	8	8	8	8	8	8	8	8	8	8
Revenue to Knowledge		Correlation Coefficient	-.756*	-.248	-.571	-.312	-.571	-.312	.090	.436	.153	.756*
		Sig. (2-tailed)										
		N										

	Sig. (2-tailed)	.030	.553	.139	.452	.139	.452	.832	.280	.718	.030
	N	8	8	8	8	8	8	8	8	8	8
Revenue to Values	Correlation Coefficient	-.750 [*]	-.299	-.567	-.354	-.567	-.354	.179	.433	.231	.750 [*]
	Sig. (2-tailed)	.032	.472	.143	.390	.143	.390	.671	.284	.582	.032
	N	8	8	8	8	8	8	8	8	8	8
Revenue to IT	Correlation Coefficient	-.775 [*]	-.309	-.586	-.365	-.586	-.365	.185	.447	.239	.775 [*]
	Sig. (2-tailed)	.024	.457	.127	.374	.127	.374	.661	.267	.569	.024
	N	8	8	8	8	8	8	8	8	8	8
Revenue to Alignment	Correlation Coefficient	-.756 [*]	-.407	-.571	-.445	-.571	-.445	.361	.436	.393	.756 [*]
	Sig. (2-tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	N	8	8	8	8	8	8	8	8	8	8
Efficiency to Revenue	Correlation Coefficient	-.849 ^{**}	-.392	.157	.267	.157	.267	-.122	.719 [*]	.105	.340
	Sig. (2-tailed)	.008	.336	.711	.523	.711	.523	.774	.044	.805	.410
	N	8	8	8	8	8	8	8	8	8	8
Efficiency to Functionality	Correlation Coefficient	-.639	-.354	-.703	-.425	-.703	-.425	.195	.201	.262	.639
	Sig. (2-tailed)	.088	.389	.052	.294	.052	.294	.644	.633	.531	.088
	N	8	8	8	8	8	8	8	8	8	8
Efficiency to Partnerships	Correlation Coefficient	-.589	-.408	-.713 [*]	-.472	-.713 [*]	-.472	.282	.136	.340	.589
	Sig. (2-tailed)	.124	.315	.047	.237	.047	.237	.499	.748	.410	.124
	N	8	8	8	8	8	8	8	8	8	8
Efficiency to Branding	Correlation Coefficient	-.468	-.504	-.708 [*]	-.552	-.708 [*]	-.552	.448	.000	.487	.468
	Sig. (2-tailed)	.242	.203	.050	.156	.050	.156	.266	1.000	.221	.242
	N	8	8	8	8	8	8	8	8	8	8
Efficiency to innovation	Correlation Coefficient	-.756 [*]	-.354	-.571	-.401	-.571	-.401	.271	.436	.313	.756 [*]
	Sig. (2-tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030

	N	8	8	8	8	8	8	8	8	8	8
Efficiency to Knowledge	Correlation Coefficient	-.644	-.406	-.708*	-.469	-.708*	-.469	.280	.203	.338	.644
	Sig. (2-tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Efficiency to Values	Correlation Coefficient	-.775*	-.309	-.586	-.365	-.586	-.365	.185	.447	.239	.775*
	Sig. (2-tailed)	.024	.457	.127	.374	.127	.374	.661	.267	.569	.024
	N	8	8	8	8	8	8	8	8	8	8
Efficiency to IT	Correlation Coefficient	-.756*	-.354	-.571	-.401	-.571	-.401	.271	.436	.313	.756*
	Sig. (2-tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8
Efficiency to Alignment	Correlation Coefficient	-.589	-.606	-.713*	-.639	-.713*	-.639	.620	.136	.640	.589
	Sig. (2-tailed)	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
	N	8	8	8	8	8	8	8	8	8	8
Functionality to Revenue	Correlation Coefficient	-.585	-.357	-.708*	-.428	-.708*	-.428	.196	.135	.264	.585
	Sig. (2-tailed)	.128	.386	.050	.291	.050	.291	.642	.750	.528	.128
	N	8	8	8	8	8	8	8	8	8	8
Functionality to Efficiency	Correlation Coefficient	-.585	-.357	-.708*	-.428	-.708*	-.428	.196	.135	.264	.585
	Sig. (2-tailed)	.128	.386	.050	.291	.050	.291	.642	.750	.528	.128
	N	8	8	8	8	8	8	8	8	8	8
Functionality to Partnerships	Correlation Coefficient	-.644	-.406	-.708*	-.469	-.708*	-.469	.280	.203	.338	.644
	Sig. (2-tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Functionality to Brands	Correlation Coefficient	-.756*	-.354	-.571	-.401	-.571	-.401	.271	.436	.313	.756*
	Sig. (2-tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8

Functionality to Innovation	Correlation Coefficient	-.750*	-.194	-.567	-.265	-.567	-.265	.000	.433	.072	.750*
	Sig. (2-tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	N	8	8	8	8	8	8	8	8	8	8
Functionality to Knowledge	Correlation Coefficient	-.599	-.150	-.647	-.248	-.647	-.248	.120	.328	.216	.899*
	Sig. (2-tailed)	.155	.749	.116	.592	.116	.592	.798	.472	.642	.006
	N	7	7	7	7	7	7	7	7	7	7
Functionality to Values	Correlation Coefficient	-.750*	-.194	-.567	-.265	-.567	-.265	.000	.433	.072	.750*
	Sig. (2-tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	N	8	8	8	8	8	8	8	8	8	8
Functionality to IT	Correlation Coefficient	-.756*	-.407	-.571	-.445	-.571	-.445	.361	.436	.393	.756*
	Sig. (2-tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	N	8	8	8	8	8	8	8	8	8	8
Functionality to Alignment	Correlation Coefficient	-.585	-.602	-.708*	-.634	-.708*	-.634	.616	.135	.635	.585
	Sig. (2-tailed)	.128	.115	.050	.091	.050	.091	.104	.750	.091	.128
	N	8	8	8	8	8	8	8	8	8	8
Partnerships to Revenue	Correlation Coefficient	-.639	-.452	-.703	-.507	-.703	-.507	.361	.201	.409	.639
	Sig. (2-tailed)	.088	.261	.052	.200	.052	.200	.379	.633	.314	.088
	N	8	8	8	8	8	8	8	8	8	8
Partnerships to Efficiency	Correlation Coefficient	-.527	-.406	-.708*	-.469	-.708*	-.469	.280	.068	.338	.527
	Sig. (2-tailed)	.180	.319	.050	.241	.050	.241	.502	.874	.413	.180
	N	8	8	8	8	8	8	8	8	8	8
Partnerships to Functionality	Correlation Coefficient	-.644	-.357	-.708*	-.428	-.708*	-.428	.196	.203	.264	.644
	Sig. (2-tailed)	.085	.386	.050	.291	.050	.291	.642	.630	.528	.085
	N	8	8	8	8	8	8	8	8	8	8
Partnerships to	Correlation	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*

Brands	Coefficient											
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032	
	N	8	8	8	8	8	8	8	8	8	8	
Partnerships to Innovation	Correlation Coefficient	-.756*	-.196	-.571	-.267	-.571	-.267	.000	.436	.073	.756*	
	Sig. (2-tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030	
	N	8	8	8	8	8	8	8	8	8	8	
Partnerships to Knowledge	Correlation Coefficient	-.750*	-.194	-.567	-.265	-.567	-.265	.000	.433	.072	.750*	
	Sig. (2-tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032	
	N	8	8	8	8	8	8	8	8	8	8	
Partnerships to Values	Correlation Coefficient	-.756*	-.354	-.571	-.401	-.571	-.401	.271	.436	.313	.756*	
	Sig. (2-tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030	
	N	8	8	8	8	8	8	8	8	8	8	
Partnerships to IT	Correlation Coefficient	-.756*	-.407	-.571	-.445	-.571	-.445	.361	.436	.393	.756*	
	Sig. (2-tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030	
	N	8	8	8	8	8	8	8	8	8	8	
Partnerships to Alignment	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*	
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032	
	N	8	8	8	8	8	8	8	8	8	8	
Brands to Revenue	Correlation Coefficient	-.639	-.354	-.703	-.425	-.703	-.425	.195	.201	.262	.639	
	Sig. (2-tailed)	.088	.389	.052	.294	.052	.294	.644	.633	.531	.088	
	N	8	8	8	8	8	8	8	8	8	8	
Brands to Efficiency	Correlation Coefficient	-.585	-.602	-.708*	-.634	-.708*	-.634	.616	.135	.635	.585	
	Sig. (2-tailed)	.128	.115	.050	.091	.050	.091	.104	.750	.091	.128	
	N	8	8	8	8	8	8	8	8	8	8	
Brands to Functionality	Correlation Coefficient	-.585	-.602	-.708*	-.634	-.708*	-.634	.616	.135	.635	.585	

	Sig. (2-tailed)	.128	.115	.050	.091	.050	.091	.104	.750	.091	.128
	N	8	8	8	8	8	8	8	8	8	8
Brands to Partnerships	Correlation Coefficient	-.644	-.406	-.708*	-.469	-.708*	-.469	.280	.203	.338	.644
	Sig. (2-tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Brands to Innovation	Correlation Coefficient	-.644	-.504	-.708*	-.552	-.708*	-.552	.448	.203	.487	.644
	Sig. (2-tailed)	.085	.203	.050	.156	.050	.156	.266	.630	.221	.085
	N	8	8	8	8	8	8	8	8	8	8
Brands to Knowledge	Correlation Coefficient	-.644	-.357	-.708*	-.428	-.708*	-.428	.196	.203	.264	.644
	Sig. (2-tailed)	.085	.386	.050	.291	.050	.291	.642	.630	.528	.085
	N	8	8	8	8	8	8	8	8	8	8
Brands to Values	Correlation Coefficient	-.589	-.606	-.713*	-.639	-.713*	-.639	.620	.136	.640	.589
	Sig. (2-tailed)	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
	N	8	8	8	8	8	8	8	8	8	8
Brands to IT	Correlation Coefficient	-.585	-.602	-.708*	-.634	-.708*	-.634	.616	.135	.635	.585
	Sig. (2-tailed)	.128	.115	.050	.091	.050	.091	.104	.750	.091	.128
	N	8	8	8	8	8	8	8	8	8	8
Brands to Alignment	Correlation Coefficient	-.639	-.549	-.703	-.589	-.703	-.589	.528	.201	.557	.639
	Sig. (2-tailed)	.088	.159	.052	.124	.052	.124	.179	.633	.151	.088
	N	8	8	8	8	8	8	8	8	8	8
Innovation to Revenue	Correlation Coefficient	-.644	-.406	-.708*	-.469	-.708*	-.469	.280	.203	.338	.644
	Sig. (2-tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Innovation to Efficiency	Correlation Coefficient	-.657	-.464	-.723*	-.521	-.723*	-.521	.371	.207	.421	.657
	Sig. (2-tailed)	.076	.246	.043	.185	.043	.185	.365	.623	.299	.076

	N	8	8	8	8	8	8	8	8	8	8
Innovation to Functionality	Correlation Coefficient	-.966**	-.516	-.529	-.300	-.529	-.300	.258	.529	.316	.725
	Sig. (2-tailed)	.000	.235	.222	.513	.222	.513	.576	.222	.490	.065
	N	7	7	7	7	7	7	7	7	7	7
Innovation to Partnership	Correlation Coefficient	-.756*	-.354	-.571	-.401	-.571	-.401	.271	.436	.313	.756*
	Sig. (2-tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8
Innovation to Branding	Correlation Coefficient	-.756*	-.354	-.571	-.401	-.571	-.401	.271	.436	.313	.756*
	Sig. (2-tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8
Innovation to Knowledge	Correlation Coefficient	-.750*	-.194	-.567	-.265	-.567	-.265	.000	.433	.072	.750*
	Sig. (2-tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	N	8	8	8	8	8	8	8	8	8	8
Innovation to Values	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
Innovation to IT	Correlation Coefficient	-.717	-.363	-.516	-.418	-.516	-.418	.362	.523	.407	.717
	Sig. (2-tailed)	.070	.424	.236	.351	.236	.351	.425	.228	.365	.070
	N	7	7	7	7	7	7	7	7	7	7
Innovation to Alignment	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
Knowledge to Revenue	Correlation Coefficient	-.644	-.357	-.708*	-.428	-.708*	-.428	.196	.203	.264	.644
	Sig. (2-tailed)	.085	.386	.050	.291	.050	.291	.642	.630	.528	.085
	N	8	8	8	8	8	8	8	8	8	8

Knowledge to Efficiency	Correlation Coefficient	-.589	-.606	-.713*	-.639	-.713*	-.639	.620	.136	.640	.589
	Sig. (2-tailed)	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
	N	8	8	8	8	8	8	8	8	8	8
Knowledge to Functionality	Correlation Coefficient	-.657	-.464	-.723*	-.521	-.723*	-.521	.371	.207	.421	.657
	Sig. (2-tailed)	.076	.246	.043	.185	.043	.185	.365	.623	.299	.076
	N	8	8	8	8	8	8	8	8	8	8
Knowledge to Partnerships	Correlation Coefficient	-.630	.188	.190	.505	.190	.505	-.474	.873**	-.211	.630
	Sig. (2-tailed)	.094	.655	.651	.202	.651	.202	.235	.005	.616	.094
	N	8	8	8	8	8	8	8	8	8	8
Knowledge to Brands	Correlation Coefficient	-.639	-.549	-.703	-.589	-.703	-.589	.528	.201	.557	.639
	Sig. (2-tailed)	.088	.159	.052	.124	.052	.124	.179	.633	.151	.088
	N	8	8	8	8	8	8	8	8	8	8
Knowledge to Innovation	Correlation Coefficient	-.644	-.406	-.708*	-.469	-.708*	-.469	.280	.203	.338	.644
	Sig. (2-tailed)	.085	.319	.050	.241	.050	.241	.502	.630	.413	.085
	N	8	8	8	8	8	8	8	8	8	8
Knowledge to Values	Correlation Coefficient	-.378	-.723*	-.571	-.713*	-.571	-.713*	.904**	.000	.873**	.378
	Sig. (2-tailed)	.356	.043	.139	.047	.139	.047	.002	1.000	.005	.356
	N	8	8	8	8	8	8	8	8	8	8
Knowledge to IT	Correlation Coefficient	-.756*	-.354	-.571	-.401	-.571	-.401	.271	.436	.313	.756*
	Sig. (2-tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8
Knowledge to Alignment	Correlation Coefficient	-.589	-.606	-.713*	-.639	-.713*	-.639	.620	.136	.640	.589
	Sig. (2-tailed)	.124	.112	.047	.088	.047	.088	.101	.748	.088	.124
	N	8	8	8	8	8	8	8	8	8	8
Values to Revenue	Correlation	-.756*	-.248	-.571	-.312	-.571	-.312	.090	.436	.153	.756*

	Coefficient										
	Sig. (2-tailed)	.030	.553	.139	.452	.139	.452	.832	.280	.718	.030
	N	8	8	8	8	8	8	8	8	8	8
Values to Efficiency	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
Values to Functionality	Correlation Coefficient	-.750*	-.194	-.567	-.265	-.567	-.265	.000	.433	.072	.750*
	Sig. (2-tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	N	8	8	8	8	8	8	8	8	8	8
Values to Partnerships	Correlation Coefficient	-.756*	-.354	-.571	-.401	-.571	-.401	.271	.436	.313	.756*
	Sig. (2-tailed)	.030	.390	.139	.325	.139	.325	.516	.280	.451	.030
	N	8	8	8	8	8	8	8	8	8	8
Values to Brands	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
Values to Innovation	Correlation Coefficient	-.571	-.546	-.432	-.539	-.432	-.539	.683	.330	.660	.571
	Sig. (2-tailed)	.139	.161	.285	.168	.285	.168	.062	.425	.075	.139
	N	8	8	8	8	8	8	8	8	8	8
Values to Knowledge	Correlation Coefficient	-.756*	-.248	-.571	-.312	-.571	-.312	.090	.436	.153	.756*
	Sig. (2-tailed)	.030	.553	.139	.452	.139	.452	.832	.280	.718	.030
	N	8	8	8	8	8	8	8	8	8	8
Values to IT	Correlation Coefficient	-.756*	-.196	-.571	-.267	-.571	-.267	.000	.436	.073	.756*
	Sig. (2-tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030
	N	8	8	8	8	8	8	8	8	8	8
Values to Alignment	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*

	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
IT to Revenue	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
IT to Efficiency	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
IT to Functionality	Correlation Coefficient	-.577	-.552	-.436	-.544	-.436	-.544	.690	.333	.667	.577
	Sig. (2-tailed)	.134	.156	.280	.163	.280	.163	.058	.420	.071	.134
	N	8	8	8	8	8	8	8	8	8	8
IT to Partnerships	Correlation Coefficient	-.756*	-.407	-.571	-.445	-.571	-.445	.361	.436	.393	.756*
	Sig. (2-tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	N	8	8	8	8	8	8	8	8	8	8
IT to Brands	Correlation Coefficient	-.571	-.546	-.432	-.539	-.432	-.539	.683	.330	.660	.571
	Sig. (2-tailed)	.139	.161	.285	.168	.285	.168	.062	.425	.075	.139
	N	8	8	8	8	8	8	8	8	8	8
IT to Innovation	Correlation Coefficient	-.750*	-.299	-.567	-.354	-.567	-.354	.179	.433	.231	.750*
	Sig. (2-tailed)	.032	.472	.143	.390	.143	.390	.671	.284	.582	.032
	N	8	8	8	8	8	8	8	8	8	8
IT to Knowledge	Correlation Coefficient	-.756*	-.407	-.571	-.445	-.571	-.445	.361	.436	.393	.756*
	Sig. (2-tailed)	.030	.318	.139	.269	.139	.269	.379	.280	.336	.030
	N	8	8	8	8	8	8	8	8	8	8
IT to Values	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032

	N	8	8	8	8	8	8	8	8	8	8
IT to Alignment	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8
Alignment to Revenue	Correlation Coefficient	-.644	-.504	-.708*	-.552	-.708*	-.552	.448	.203	.487	.644
	Sig. (2-tailed)	.085	.203	.050	.156	.050	.156	.266	.630	.221	.085
	N	8	8	8	8	8	8	8	8	8	8
Alignment to efficiency	Correlation Coefficient	-.756*	-.196	-.571	-.267	-.571	-.267	1.000	.436	.073	.756*
	Sig. (2-tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030
	N	8	8	8	8	8	8	8	8	8	8
Alignment to Functionality	Correlation Coefficient	-.756*	-.196	-.571	-.267	-.571	-.267	1.000	.436	.073	.756*
	Sig. (2-tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030
	N	8	8	8	8	8	8	8	8	8	8
Alignment to Partnerships	Correlation Coefficient	-.750*	-.194	-.567	-.265	-.567	-.265	1.000	.433	.072	.750*
	Sig. (2-tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	N	8	8	8	8	8	8	8	8	8	8
Alignment to Brands	Correlation Coefficient	-.167	.053	.322	.210	.322	.210	-.146	.064	-.295	-.056
	Sig. (2-tailed)	.693	.901	.437	.619	.437	.619	.730	.880	.478	.896
	N	8	8	8	8	8	8	8	8	8	8
Alignment to Innovation	Correlation Coefficient	-.750*	-.194	-.567	-.265	-.567	-.265	1.000	.433	.072	.750*
	Sig. (2-tailed)	.032	.645	.143	.526	.143	.526	1.000	.284	.865	.032
	N	8	8	8	8	8	8	8	8	8	8
Alignment to Knowledge	Correlation Coefficient	-.756*	-.248	-.571	-.312	-.571	-.312	.090	.436	.153	.756*
	Sig. (2-tailed)	.030	.553	.139	.452	.139	.452	.832	.280	.718	.030
	N	8	8	8	8	8	8	8	8	8	8

Alignment to Values	Correlation Coefficient	-.756*	-.196	-.571	-.267	-.571	-.267	.000	.436	.073	.756*
	Sig. (2-tailed)	.030	.642	.139	.522	.139	.522	1.000	.280	.864	.030
	N	8	8	8	8	8	8	8	8	8	8
Alignment to IT	Correlation Coefficient	-.750*	-.403	-.567	-.442	-.567	-.442	.359	.433	.390	.750*
	Sig. (2-tailed)	.032	.322	.143	.273	.143	.273	.383	.284	.340	.032
	N	8	8	8	8	8	8	8	8	8	8

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX L: Case study summaries

Vision	'...to take the lead in pioneering technology initiatives'
Sex	Male
Nationality	British
Experience	IT with extensive business experience
Background	<p>SME2 is a business in the services sector (professional football) providing scouting, recruitment, and player administration and management solutions. With a background in IT, the management team has a running experience in the business of 12 years serving more than 150 professional Football Clubs and national Football Associations. Their main philosophy is therefore harnessing long term associations and partnerships with many of the sector's stakeholders.</p> <p>Based in the West Midlands region, it is technology robust and secure and its people are knowledgeable and respected. The company employs 25 staff and internationally works with more than 40 professional correspondents in more than 130 countries across the world, incorporating a comprehensive database of approaching 130,000 players, delivering independent information, statistics and news content. They operate a secured online system providing centralised assessment tools, supporting improved workflow and management processes within the Football Club.</p>

Vision	'to partner with our customers,
Sex	Male
Nationality	British
Experience	Accountancy and Finance
Background	<p>SME3 is one of the region's leading print and print management business dealing with graphic design or artwork, through to the storage and delivery of a printed, promotional or ancillary item and also offering technical support, consultancy, large format graphics, print management and general facilities management. It is based in the centre of the region and works with an enviable list of customers. As stated by the company</p> <p><i>We are not just a "printer" - we are a new breed of "printer" - one who is different from the rest priding themselves as an "end to end print solution provider" - anticipating the needs of its customers and reacting to them. They therefore pride themselves on being very customer focussed in order to add value.</i></p>

Vision	
Sex	Male
Nationality	British
Experience	Engineering
Background	<p>SME5 is an independent specialist coating company dealing in the manufacturing of high performance surface coatings engineered to meet increasing requirements. According to their mission, they are committed to product innovation and quality. It has recently expanded its share of the market with several new approvals representing a significant increase in business. Much of the business is a result of the company's expertise where 'green' issues are of particular importance and in the protection of magnesium parts for aerospace applications. Aerospace companies in Canada, France, India and the USA as well as the UK have benefited from its diverse range of coatings.</p>

	Based in the region, SME5 has been operating for the past 16 years and the MD has been a director representing SME's as well as a Commercial Manager at the region's council. He also has diplomas in both Management and Marketing giving a holistic view of business which is a key in convertibility
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Vision	
Sex	Male
Nationality	British
Experience	Engineering
Background	<p>SME4 is one of the largest precision engineering companies in the U.K. and Europe specialising in contract presswork and stampings which enabling the manufacture of precision metal components of a complex nature for customers around the globe and in many different markets.</p> <p>From humble origins it has continued to develop and evolve to be one of the most skilled and accomplished metal pressings and stampings companies. It has gained a reputation for combining technical competence and excellence with sound, lean manufacturing principles enabling it to produce competitively priced, high quality pressed and stamped metal components; these qualities combined with zero defect manufacturing policy and outstanding customer service makes it a preferred supplier to many of the leading global corporations in the Automotive, Aerospace, Defence, Environmental and Medical supply chains.</p> <p>In 2005 it acquired another company and the two organisations were then merged. Focus was given to the two companies' core activities and the company underwent a period of rationalisation and efficiency improvements to streamline manufacture in line with current lean, 5 S, Kanban and SMED best practices.</p> <p>Today it has a turnover of some £5 Million per annum and employs 55 people. Financially stable and with an experienced and well respected management team it projects strong ambitions for the future with further</p>

	strategic acquisitions under review.
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Vision	“To enjoy what we do and to be successful”
Sex	Female
Nationality	British
Experience	Business
Background	<p>SME6 is a specialist manufacturer of a diverse range of engraved and etched products and focuses more on hot foiling and embossing dies together with spark erosion electrodes and pad printing plates. They state that</p> <p style="text-align: center;"><i>...it is the process rather than the product that dictates our capability</i></p> <p>...and therefore actively encourage companies to approach them with a view to developing products and processes. Located at the very heart of the UK, SME4 are ideally situated to serve customers worldwide with easy access to motorways and airports. Coupled with our highly skilled local workforce, their uniqueness and flexibility is key to success as a world leading manufacturer of precision engraved tooling.</p>

Vision	
Sex	Male
Nationality	British
Experience	Business
Background	<p>SME7 is a technological business that enables effective business delivery and enhanced business performance through products and service for customer satisfaction.</p>

	<p>The team at SME7 are specialists in strategy planning and execution and performance management. In excess of 100 organisations currently use our products and services. These organisations vary in size from small businesses with 15 staff through to enterprises with turnovers up to £340m and 2000+ employees.</p> <p>They pride themselves on retaining customers who use their product and services over years and have seen significant benefits as a consequence, including year on year delivery of their strategic plans and improvements in management efficiency and organisation performance.</p> <p>According to the MD,</p> <p><i>“The business goes beyond what we wanted to achieve from it, the platform leads straight to business intelligence.”</i></p> <p>The company has been running for 10 years and based in the West midlands region with a team of 5 directors. SME7 is split between 12 shareholders. SME7 have total assets of £0 plus total liabilities of £777,744. They owe £543,508 to creditors and are due £193,651 from trade debtors. As of their last financial statement, they had £165,769 in cash reserves. Their book value is £-407,543, and the value of their shareholders' fund is £158,345.</p>
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Vision	
Sex	Male
Nationality	British
Experience	Business
Background	<p>SME8 is a business involved in coaching and mentoring. The team was created in early 2008 to provide coaching to UK organisations. All coaches on the scheme have easily passed desk-top screening and then excelled in a demanding assessment centre. The advantage to organisations is that quality coaching is available at very encouraging rates and these rates include capped expenses so that budgets are sacrosanct. This is not cheap coaching but a methodology for bringing the finest coaching available to SMEs and to larger organisations in lean periods.</p> <p>Since 2009, SME8 has been working with the National Skills Academy for Manufacturing, to provide leadership and coaching skills to manufacturing industry managements. Products are targeted primarily at the SME market, but whole supply-chains, including blue-chips gain from these learning & development interventions.</p>

APPENDIX M: Transcript of interviews

	SME2	SME3	SME5	SME4	SME6	SME7	SME8	SME1
1	<p>I think hard work will always be important in management. We are now 10 years in business and I think we've talked about our knowledge base and it is very high (optimistic) and that is why we are successful as a business. (We) <u>understand</u> our market and customer and we are always <u>reflecting</u> on the market and we <u>know</u> what we are doing as an organisation but the mantle I have with my colleagues is about how hard we will work and as a manager you have to lead by example so you have to work hard and so hard work is something you <u>need</u> to have as an <u>inherent</u> skill or attribute. You <u>need</u> to be good with people and personable.</p>	<p>I think management is changing and no doubt to that. The old style manager has had to adapt to change. Certainly hard work is still important particular in the current economic environment. The ruthlessness side still has a place in business but we are social elements and human resource requirements demand that we have equal opportunities, issues with regards to sexual harassment, and things that were not in place before and in this business we are strict on regards to health and safety, behaviour of staff. I think some of the issues of bullying is not socially accepted now as the world</p>	<p>Its always going to be hard work but basically, the culture of the company need to change to be more cooperative with people. We are going to try to get people to start working and thinking for themselves, managing themselves better. I do not think it will be ruthless, I think it will be hard work, cooperation as well and people to manage themselves and understand what they need from the board and flowing down to other parts of the organisation. Personally, ruthlessness has never come into it but in the future it possibly might come in because you have more people dependent on</p>	<p>I think attitude. I think there is a problem with attitude right throughout the new workforce in the UK. The kids coming out of schools and even the kids coming out of Universities have the wrong attitudes. Government is trying to address it by throwing money at skills. I think and I have said this to government managers, there are putting money in the wrong direction and I think they need to correct the attitude and I think that is a societal thing. Correct the attitude of the new labour workforce if you like and when I say workforce I mean management, high tech and</p>	<p>I think managers need to head up the team but allow people to develop themselves. They should provide support and act as enablers because the biggest asset any company has is the people who work for them.</p>	<p>I think a combination of things. You need to have an element of ruthlessness but what you are trying to achieve is that you rely on your resources effectively to make sure that happens and I think you need to have a degree of empathy with your staff in terms of what their needs are and I think the ability to address their needs and that of the wider community and as well as important attribute in modern business is not just your business but you have to think about the context in which you operate. One of things we are keen on is that people do some charitable work as well as work within the business so that the softer edges to business is going forward perhaps than</p>	<p>Basic values of management ...I do not think management in the traditional sense has a future. We do most our work in leadership not management. Management is more about telling people what to do and certainly in my experience, as I have spent many years in the corporate world and telling people what to do does not work. If you can lead them and motivate them, then you can achieve miracles. So I think more and more management is going to disappear and leadership will become more and more prominent and will all be around how you motivate people, how do you get people engaged and how you get them to take</p>	<p>Its still hard work but we are in a people business and ruthlessness does not work. We try to be an ethical business and the key things we work on is ethical in the ways we treat our people, customers, suppliers so I will say it's hard work, intelligence, people who can engage with people and have that interaction with people</p>

<p>Most businesses are people businesses and you <u>have</u> to keep people on side. It is tough out there and people have social things that happen at home and in their daily lives that you <u>need</u> to support so you <u>have</u> to be a people person when people are having a tough time externally, you <u>have</u> to as a company show them a level of stability in their lives and support them. You <u>have</u> to be good on that especially in tough economic times like now, that is very important.</p> <p>I can only talk about the market we are in which is a very specialist market. We <u>have</u> to be very <u>reflective</u> and have the ability to adapt very quickly. The only constant in our business is managed</p>	<p>has changed and managers have had to change eventhough it still goes on in SMEs but I think its changing now. We as a business are moving forward and hardwork is important and we certainly running now with less people than we had in 2007 and certainly less than we had in the early part of 2000. Yes we are reasonably ruthless in business, I'm certainly am, but I will like to think I'm fair. I will like to think we have an open door policy and fair in people to come to see me, they may not because I'm the boss but I go out of my way and try and see them. I have tried read people so and if I think there is a problem, I will like to go to the problem rather than the problem coming to me. I think</p>	<p>the company and turnover is getting bigger and the more things can go wrong. Another risk is standing still which might need a push over.</p>	<p>basic skills coming out of schools. If you come out of school have the right attitudes, you will soak up skills, as you will have an enthusiasm to learn. If you look at the Indians and Chinese, they are swamping our Universities because they have a thirst for knowledge. We do not see that in our children in the UK and this is a great disappointment. This is where we have the problems in the future which is changing attitudes. Change the attitude and you will have a sponge for skills. I think that is critical</p>		<p>which have been before</p>	<p>responsibility for their own actions. Those companies that do not recognise this will go out of business and this is where many companies have already gone out of business. If you want highly performing staff, you have to give them the ability to do what they can do and if you tell them what to do, it might just be an opposing effect.</p>	
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<p><u>change</u> and it is a very <u>conscious</u> thought process that we have. So hard work, flexibility, personable skills and constant ability to adapt to your market are very important</p>	<p>that is important within the business rather than saying I am the MD and you have to do it my way, well there is actually more ways than one is going to get.</p> <p>Partnerships I think are very important, certainly one of the successes we have had in Pinstripe is that we have been able to enter a lot of framework agreements as we now operate under about 9 framework agreements. Framework agreements give us an opportunity to be able one of 4 or 5 preferred suppliers. It does not guarantee the work but its meant that we have been able to get some very sizeable contracts of which we are working hard on those and its actually benefited us and it is a lot of hard work to get those. There are</p>						
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		partnerships in working very closely with the customers in a working partnership relationship and adding value to their business and giving us a good amount of business as well						
2	<p>I think cash and risk management are key, you have to, specifically about our business, cash management is. We never push the boat too far. There is always a balance so we have to invest in the market or product development, we always realise that if we spend too much money, we do not recoup enough in same amount of time that will give us a problem so we are always concern about our cash management.</p> <p>Risk management is the same, there are a lot of markets we could have taken the</p>	<p>I think the business has to continuously consider cash and risk management as there are terribly important. I think we are seeing that businesses are continuing to get more competitive and its driving down price and cost that you are actually producing work more effectively. There is only a certain degree to how far that can possibly go because ultimately you have stripe out as much cost as you certainly can in a legitimate way like not taking people and not paying them properly</p>	<p>The standard management practices will still be there. Effective cash management definitely because with the changing world, Europe especially, we export direct at the moment 47%, indirectly it could be about 20% - 30% on top of that and so we have to manage our finances abroad. It is not worth going into business if there is a big risk within and analyses need to be done. The key to competitiveness in the future for us is which technologies and projects we go for through our</p>	<p>I think now that it partly depends on the business you are in but to a great or lesser extent, the requirements to every business are the same but how much you apply them will depend on the industry you are in and how much competition there is. In many industries, there isn't enough control particularly in recession time because you will always get businesses that quote silly prices for silly work and then disappear but in the process they damage the good businesses because they</p>	<p>Of course cash and risk management are part of it and are needed. There do not make businesses successful but need to be controlled. I think things that make businesses successful depending on what kind of industry you are in, speaking from the business that we are in, a lot of it is about the knowledge that you have and are willing to give to your customer, the advice and support you provide to customers, building relationships and trust and it's not just about price.</p>	<p>Knowing, understanding and able to work with your customers effectively and that is what it's all about as you have to be in tune with what your customers want. If not you would not be able to succeed. Interestingly cash and risk management are necessary but customer engagement is key.</p>	<p>It depends on what you mean by competitiveness and certainly for a small business, cash flow is still absolutely critical in managing the day to day operations. We do not have vast cash reserves but we are always looking at a horizon, very rarely more than 3 months out. If we do not get business for more than 3 months then we are likely to run out of money. Haven said that, the most important thing in business is to get new business and it is an issue for small companies more so than big ones in the fact that we</p>	<p>It's really thinking about where you are in the market and what your point of difference is. Cash and risk management are still very important but you are not going to be successful unless you declare where you are going and you need to have people around you to make it happen.</p>

<p>company into but we resisted the temptation because the risk was too great and the stretch and focus of our business will be lost. So cash and risk management are and will always be fundamental. Considering that we have been 10 years now, we have just made an acquisition of another business so we now have to manage the pennies for a period of time because we just made this big outlay. So it's always going to be a consideration within the context of which being a successful company. The keys are flexibility, adaptability, knowledge, understanding but never forgetting cash and risk management from a management perspective.</p>	<p>through payroll but assuming that everything is proper, there is a minimum wage, minimum amount you have to pay and your business must make profit. It concerns me that a number of businesses especially in the Print industry is one where you find that a number are not operating, zombie companies, just twiddling along and the industry will fare better if there are just flushed out. They are disappearing all the time and partly is because some people are actually getting older and thinking that well I will just give up now, it's not worth continuing and others are not taking their place, so it's happening but it's very slow. Like a number of other very old traditional industries,</p>	<p>customer and R&D function. That will be our main measure of business success. We do anticipate high turnover and we are hoping to keep to same gross margin. One other thing for us is the R&D projects we undertake as the biggest management success we can have.</p> <p>We have been involved with various projects with partners and I am on a course at the moment with Aston University and involved with other local Universities. We have done technical work with Warwick, Southampton, Loughborough and one of the things we have found in the past is breaking the problem link between universities and business and making a project idea</p>	<p>are pulling work away from the good businesses and I think this has always been a problem in recessions where we have seen businesses go into receivership or disappear in this recession and the bad ones can take good ones with them. I think generally and in particular in difficult financial times and particularly for small businesses, managing cash and being flexible, managing your whole capital regime is absolutely critical. Keep it as tight as you can. The tighter you can make it, the more chance you have of surviving. That goes right through from managing your workforce, finances, keeping a very tight control on</p>	<p>When you talk about competitiveness, everybody automatically thinks about price, are you cost effective?, are you cheaper? are basically the questions. I know from experience that our products are not the cheapest and are not the most expensive either but what we do is we get it right and that's what is important and we are reliable. If we say we will do something, our customers know we will deliver, if we can't, we tell them we can't. It's that honesty and I think that has a lot to do with it.</p>		<p>are busy at the moment and that is great but we cannot ignore going to look for new business because we are busy now. That is more a problem in small business than in a big business where you have marketing department and sales departments going out looking for business. If you are a small business delivering your own work, you can get busy and get tied up in the here and now so that the future disappears. So the key to me is balancing the future with today. If you are busy today, that is fine but if that means you die in the future, that is not good at all, but if you are not busy now, so also you die. Its about balancing the future and the present. I think technology has a very big role to play but technology is a tool. It is not the core of</p>	
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		<p>printing is a very old saturated market where supply exceeds demand and so we have to be competitive in that particular world.</p> <p>With regards to competitiveness in the future, it is about understanding your core capabilities. Technology is important and making sure that you are very flexible and I think SMEs are very flexible. If you look at big businesses, their ability to be flexible is limited because the communication skills and knowledge enter into the business and then eventually a decision rolling out of that can take a considerable time. Here if something is happening in the market, we will discuss it and</p>	<p>work. That is where the difficulty is and we are trying to get around that link at the moment.</p>	<p>purchases, don't buy more than you need, buy at the best price you can. All those structures particularly in recession times for all businesses is critical but particularly for small businesses because they have more flexibility and not tied in long contracts, they have the flexibility to use that size to their advantage.</p>			<p>a business. Small businesses tend to depend on people and people are the core who drive the business and the people will make the business survive or die. But technology can support it and help you realise lots and lots of opportunities. But the technology will not do the work for you.</p>	
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3	<p>If I'm being honest, It's probably the relationship you have is always 80% of the sales and you can have an average product and sell more if you have good people as compared to a competitor who has a better product but poor people and so we emphasize absolutely that people are going to be right, very important and it's something</p>	<p>In the print industry, you have to make sure that you get your equipment up to capacity and hence that is why the industry is supply led unfortunately . Developing customer relationship is key in developing partnership in a competitive whole otherwise you just become a meter and you say well, you go and speak to them and I will</p>	<p>We exported about 47% directly last year and about 20 – 30% indirectly. Basically, we work with agents. If you are exporting abroad, one of the things you have to understand is different peoples' cultures and their ways of doing things because if you have to get into a country to work, you have to work their way. You have to</p>	<p>I think because of the industry and the niche we are in, we have distinct advantages that are not common across the industry in general because we are in a niche industry and the only company in the UK capable in many ways of doing what we do, a lot of the answers other businesses will give to that does not apply in our</p>	<p>Relationship selling is why we are so successful. We are friends with our customers. The people who work in our offices that are in day to day contact with customers are trained and encouraged to build relationships . It is hard to move away from someone you consider to be a friend, someone</p>	<p>We have a saying internally that love your customer strategy and it's all about listening to your customers and understanding what they want and delivering against that and over time they will give you recommendati ons and reference you to other customer and thus increase your sales capability. It's not just about winning new clients, it's</p>	<p>I think that depends on the type of business you are. For our business, we are a consultancy company and we train people as coaches, leaders and we help companies. All our sales are relationship sales as we do not do cold calling. And I think that is getting more and more important even in commodity industries.</p>	<p>It costs so much money to get a customer and it makes no sense to lose them. You have to do well to retain them as it is a key to business success.</p>

<p>we pride ourselves on.</p>	<p>speaking to them and if you want something purely on price, there are a lot of people out there. We might not be the cheapest but we will offer a little bit more than others. It's not massive, but we are slightly different. but it is very mature market and it is very difficult to be different in a saturated mature market because lots of people are very similar. You look at the machine manufacturer s like KBA, Hiderbergs and Currys, there are very similar products whatever they might say and their price is very similar to what their capabilities are.</p> <p>Customer service here has changed from 2007 to what it is now as we have more people on the</p>	<p>get a working partnership in order for a project to work. For example, we have just taken a new project in Turkey and it is going on the way at the moment. We had to do a pro forma invoice for it as we have never worked with them before, never met them before. There are 2000-3000 miles away and you have to have certain principles in place before you can do the work. We work with people all over the world. We export, last time we counted, it was about 47 countries. There are certain different market areas like we have an agent in the Middle East, France, Germany, Russia, distributor in the Americas and India. Before we enter a market region, we try to get someone in</p>	<p>case, but we do not hold our customers to ransom because they will soon go out of the UK if we did. But we do not do relationship selling in the sense that we create relationships in what might be regarded as the normal sense of the word. All the major automotive manufacturer s who use floor coating know us purely because we produce good quality and we are the only people in the UK who can do the quantities they require and are prepared to make the investments to those quantities. So we do not have any real competitions within the borders of the UK</p>	<p>they are comfortable with. I think relation is the way to go and that is what we build our company on.</p>	<p>about winning clients that are going to work with you and business for the long term.</p>	<p>Nowadays when people want to buy something, they want to talk to people about it and I think more businesses like builders, plumbers are all in the relationship game. We just did some work to our house of recent and the choice about the people was down to relationships than price or about anything else. It was about, can I work with this person? And so I think that is more and more important and will continue to be so</p>	
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		phone building relations and a few people out there developing relations particular the framework around relationships	the area who knows the conditions and cultures of the people we are trying to operate in.					
4	Again talking about our market, it will be flexibility, yes there has to be a level of quality, right people and relationships but to drive the business we have to be flexible in context. For example, there are other companies in the professional football sector that provide various technologies in the sport. We've recognise that we cannot be a master of all of this. We have our niche within that sector and what we've started to do is to be seen as the open provider of a platform that embraces other organisations. For us a key principle driving our strategy is that we will work	Quality service and price will always be important and if you haven't got it, then you are dead in the water. It's an absolute prerequisite. Anticipation and foresight are probably things that are key and trying to develop a relationship with the customer are key and not just sitting there thinking you want us to do that and you just say you got this to do and we can do this for you. Rather than just becoming a ;yes we can do business', you are actually somebody who is turning around and saying we can actually do more than that, we can	Quality will always be a primary driving force. What we are seeing now is more environmental, sustainability, carbon footprints – all linked together- and are selling points and big drivers for getting into markets. There are becoming not quite as important as quality but they are up and coming and of great important to us.	In my own industry again, because of what we do, we manufacture a process or supply a process which is defined as manufacturing, we do not use a product. Because we supply mainly to the automotive industry, probably 95-98% of our turnover is automotive based and there are three key drivers in the automotive industry, price, quality and delivery, not necessary in that order, but those are the three key factors. You meet those requirements and we will get orders from the automotive industry. You miss any of those on a	That is a difficult one. I think quality is still an important aspect. I suppose it is going to be innovation because you cannot stand still, you have to find different ways of doing things, having better and different products to get things moving. It is important to have people with the knowledge, it's not right to put people with no knowledge in front of customers and that is the mistake most companies make. I think anyone can be a sales person or technical adviser with limited knowledge and no time is invested in training the	I think it could be lots of things. People management is going to be very important and to maximise the performance from individuals because if everybody is align with the strategy, then you will have a successful business but that involves a major performance improvement culture and culture change as opposed to what we may have today.	Certainly in the past, quality was one of the big issues but now quality is a prerequisite. If you do not have the quality, whatever you do will not get you business and so quality is now the standard. To me, the big thing now is flexibility. If as an organisation you have the flexibility to go with the customer, to meet the customer needs, discuss what the customer really wants, that will get you the business. Followed fairly closely by innovation... If you do not innovate, you will die tomorrow, next month or next year and so innovation is important. But what we	I think quality is still a key but innovation is very important as well as relationships. It's about looking at the ways things were done in the past, because we are into retail and it's important for us that people feel comfortable with the history and the way we've done and can trust us, so we are actually enabling that personal interaction whilst helping in the efficient production of goods. So it's holding on to the past while embracing

<p>with client A who will have different requirements to client B and different suppliers to client B but we can facilitate a platform to both of those organisations to deliver what they need. So we embrace a partner in for example Spanish market and a different partner who does same thing in the German market. For us to become that flexible platform, we have that key principle driving our strategy and it is recognition that we are specialist in one area, we are not going to loss that and we are not going to stretch out and so for us it is flexibility as the key principle.</p>	<p>actually be part of your organisation, so you suddenly start embedding yourself into that business so suddenly people will turn round and say why do we want to go elsewhere. Not sure how that works in there when we actually go and look at the competitive tendering process arrangements that are in place. We actually got council and public bodies every four years turning and saying we will completely retender. Haven said that, the tendering process is supposed to be competitive and it develops relationships with the right partners but going through the retendering process again means bringing in a strict paper exercise designed by lawyers to actually go</p>		<p>substantial basis and you will lose the business or go out of business very quickly. So there are three drivers; quality, price and delivery.</p>	<p>people and I think that lets companies down. We do not let any of our people loose until we are confident our customers are going to be 100% happy with what they get from them.</p>		<p>find our clients more and more is about flexibility. The organisation with flexibility will manage the interaction.</p>	<p>the future.</p>
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	<p>and suck out the best people who are going to deliver and develop the relationships in an embedded way within the business which is what councils are on. What will they say, well, we work with these people for 20 years, Its clear they had a back handle on that and say well, in the past many of them have and a lot of that has gone on and it does happen now. People working in the public sector want close relationships as well so that they can say I can trust these people and I know they can do me a good job, the key thing is just to say lets ensure we can get the price right. That is much easier ways to do that rather than going through exercises of completing what is an amounting</p>						
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		paperwork which I must say we are good at but we have to go through those.						
5	<p>People again are very important. In our business, we have a flat structure as best as possible and we are a good group of guys and girls that is fundamental to us. You have to be a team player and certainly we emphasise where we have different teams in the organisation that play as teams and not as individuals which is very important. You have to get the right manager as well and as it is in most businesses, people get promoted into positions that are above their level which can become a problem. So I'm very conscious that certain people (confidentially) in the organisation will recognise</p>	<p>I think the manager has to be right for the business, committed to the business and want to work, understanding his roles and limitations in the business. There are important elements and if you have not got those, you risk doing just half the job. There are a lot of people in such positions. To understand all those things are important. People have those skills to different degrees and typically you will see people who like utilising some of the elements more than others, hence you might see good managers and poor managers and it maybe you have a good</p>	<p>Team working is always going to be important but I think having the right manager has always been important to us and will continue to be as important in the future. At the end of the day, someone may have to make a decision to say this is what we are talking about or this is where we are going.</p>	<p>A small business is probably not as relevant as a large business because the 'management' tends to be the person who created the business and drives it forward. As the business expands, people come in and work and the fact that you and the staff can work with those people is critical. In a small business environment, you cannot hide from others. Everybody is exposed and it becomes a family and if there is any member with a discord, then your family breaks down very quickly. That applies whether it is management or a worker. In a small business, discord</p>	<p>I think to say a manager is right for a particular business is a bit of red-hairing. A manager has to be the right person, someone who can put a team together and lead it. He needs to be motivated and inspired in leading a company because without that they will never be convincing as a manager. I think a good manager can go to any company as long as the company provides the technical background that the manager needs. I will be very happy to employ somebody who I felt have the right skills even without the right</p>	<p>Everybody needs to work as a team and pulling in the right direction need to that strategy in place to align everyone to make that happen. If you have factions within the organisation that think in different ways than the way forward, the organisation is not going to get very far</p>	<p>Team working is going to get more and more important...it has always been important but it's the way teams work and how they work and there is now a lot of work done in the couple decades of team working and what it means. It gets back to a manager telling a group of people what to do is not teamwork. If you go back and read of some theories about what makes a really good team, it's about the interaction of people and how the people work together...how do they trust each other, how they build rapport and how they motivate each other. So if you get a good team, then you can achieve stunning</p>	<p>It's about the culture of the business. You cannot be reliant purely on key individuals of a business but you need to surround yourself with the right people who have the right quality and special skills and work in trying to simplify the business process otherwise you will not be able to grow</p>

<p>that they have reached a level, we are going to give them opportunities but for them to take a step up will be a difficult thing for them to do. We recognise that and whilst the question is about managers, really, what I'm conscious of is that every individual have a point to which we believe they can get to and we will push them and encourage them but we recognise that different people work at different levels. So it is important that the manager is right but so should be the rest of the team</p>	<p>manager good in personal skills but his technical skills are not so good and he will have to compensate by relying on some of the people he works with to appease technical ability. At the end of the day, there will be a balance and people will find their levels and generally somebody who has an all round understanding of what is needed from a managing point of view, managing people, managing the technical side, looking at the environment, understanding what is needed in the business etc then you have a good manager and someone who will actually go and manage people and also someone who has the capability of actually delegating.</p>		<p>spreads quickly and you cannot move people to a different department as in a bigger company, so I think, I will have taken the word management or manager out of that and will say in a small business. it can be anybody in the business, the workforce, management, boss or workforce, one bad person can damage the morale of the company very quickly and it needs to be acted upon very quickly. Everybody is important and the fact that everybody needs to work as a team is important. Team working is important in our industry because we work in sales and so we are developing processes all the time.</p>	<p>technical knowledge because you can always provide that. I think the person is more important. There have to be the right personality fit, able to work with the people they are going to manage. It is no good bringing in someone who is very efficient but gets into everybody's nose. That is hardly going to work. You have to assess personality as well</p>		<p>results and I think more and more teamwork is going to be recognised. As the old style of management disappears and new leaders come in, they will recognise the importance of self motivated teams and how to use them and get the most. So yes, I think team working will become more and more important and will be the driver to future success. But it's going to take a while as there is a lot of organisations that do not believe in good teamwork or donot recognise good teamwork and so it's going to take a while to change. Again, if you think about it, a lot is about the way we are brought up. At school, we are rewarded for individual results and not team results. At early days at work, we are told if you want to get a job done right,</p>	
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		<p>Teamwork is very critical, and certainly an example in this business is to do with the recession of 2008, and we were in a situation where I thought we had to make some redundancies and do something more than that in order to cut cost. I made 7 redundancies and spoke to my suppliers to go and get extended credit so as to ease our cash position. I also had to cut everyone's salaries in the business by 15% and they have not had back yet and in the current climate, they probably won't. Haven said that, people are sitting and saying, thanks so much for that, at least we have a job as there are many people out there who do not have a job. The thing that prompted me</p>					<p>do it yourself. We are not encouraged to share and work together so there is a whole lot of history that has to be overturned before teamwork gets fully understood and used. But it's on its way.</p> <p>The manager has got to have some appropriate competencies but it is more important that they fit the business. They can have all the competencies but their values, beliefs and cultural style does not fit with the business. Then they will never be good in the business. So the cultural fit, the merge of a person's values, beliefs, the way they work, the style they work matching that to the business is more important than competencies. One of the things we say is that 'recruit for attitude and train for competence'. If you have</p>	
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		<p>to do that was in 2008 I saw Caterpillar and they said we see a stormy water coming along and we now got to have our workforce to go for a four day a week and I thought I had to take some action and that is what I did and I was the first person in the Midlands to take action. I spoke to some suppliers, which is quite strange and they said you are the first person who has told us this, do you think it is going to be that bad and I said absolutely, I think it is going to be horrible and you can bet it is going to be a 3-4 year problem bearing in mind that we are looking at the amount of GDP, the drop was in enormous in comparative terms even though we do see tiny increases, it going to take a long time to</p>					<p>the right attitude, you can train them in some other competencies they need. They obviously need some basic level of competence but attitude is more important than full competence.</p>	
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		<p>get back to normal, couple with the fact that you look at the area of the crisis in Europe and the problems we had in the US. We borrowed too much, we have been living on borrowed time and what is amazing is that nobody turned around and said this is a rollercoaster that nobody can stop even though they identified it</p>						
6	<p>Adaptability is going to be the backbone of a good manager because people change, strategies change. We are a technology company and the technology sector is very dynamic. The business plan I had three months ago is different from what I have now in many ways. So adaptability in every aspect, front to back, top to bottom, left to right is absolutely</p>	<p>I think it is to do with change in attitudes and way of doing things and certainly in the Print industry, skills and new blood is important as people are getting older so apprenticeship are important. Managers need to recognise that. I think different sort of working practices, people have more time off now and work life balance,</p>	<p>Environmental consideration, sustainability, carbon footprints but another is the possibilities of 24/7 aspect because we basically have blackberries that we can read emails. You never really switch off from it and I think it will become more and more as a driver in the future as well. Personally, I think the world is</p>	<p>Only succession planning – again it is a small business ethos that the management team grows, as the business grows. A lot of that is due to outside influences, contracts coming to an end in the automotive business and whether you get a new contract to replace an old contract, business recession and succession planning. I think those</p>		<p>I think the level of bureaucracy and regulation is more of a challenge that more managers feel are burdened by external factors which is imparting their ability to achieve and its quite clear from the work we have done on performance management that there is a heavy burden on managers as a catalyst for change and yet they are the ones with the least amount of time because not only are</p>	<p>In the current economic climate, what we need are people who can do more with less. As businesses are downsizing, they are still trying to do the same level of work or more work with fewer people and resources. So, the demand on managers to be able to do more with less are getting higher and higher and I think that is where some of the stress in industry is coming now</p>	<p>In terms of managers, it's about interaction with staff and customers and a public persona of selling the culture of the business, engaging one to one and managing staff rather than just products.</p>

<p>fundamental. I guess it might be different in other sectors and industries but certainly in the technology sector, the ability to adapt your product strategy, pricing, promotional strategy is so three dimensional and I have seen 3 or 4 (and we are not being arrogant) companies that have nibbled around our business and tried to be competition but because of their inability to adapt in many ways, that has been their downfall. So I will say the answer to the questions is an open ended one, a manager has to be adaptable to people, markets, products and have a complete constant reflection on the business and people. I as an executive director and there are two other financial</p>	<p>more regulation and competitiveness around the world and there are frustrations and pressures of coming to work. All these need to be managed wherever in the management structure</p>	<p>getting faster, I think the country is getting faster and the pace of life. The more you can keep up to date with it and manage it effectively, the more avenues you can effectively manage business. The only other aspect is that we do not overwork people into stress.</p>	<p>are the main factors that determine management but I will think the major one in a small business is succession planning.</p>		<p>they managing, they are also being managed and those processes do not fit as well as being able to do their own work</p>	<p>as no one has the time to sit down and think or reflect or just talk about business generally. Everyone is working flat out. So anybody who is able to do that is a winner.</p>	
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	<p>based non directors and only one other director in charge of operations and we spend probably an hour a day talking (not put in the diary) to each other on very aspects of the business challenging each other and reflecting on various aspects of the business. Do we throw the dice, do we stick, is that the right move is it the wrong move. It's all about adaptability and flexibility as an organisation.</p>							
7	<p>Personally, I went through a period of complacency about 6-12 months ago and its so much like you reach a milestone and you take a deep breath (not literally but figuratively) you feel like you could drop down a gear. That's a challenge for anybody who has been in business for 10 years to keep going. So I reflected</p>	<p>More flexibility and customer focus. Customer focus is key because the customer is king but it does not mean the customer has to say do this and we have to do it because they are the king, but actually being quite strong and letting the customer know what is right. It's more like working in a</p>	<p>Time management for managing projects... Knowing when to knock a project on the head...enough is enough. More quality aware, more cognisance of the environment and all that come with it</p>	<p>I think again, succession planning, like if the boss decides to retire, management needs to adapt to that and maybe new management structures and the way a new owner will expect a company to be managed. That is probably the main adaptation that managers have to go through. The</p>		<p>They need to understand the environment in which they operate and what part they can play in improving the performance of the organisation and themselves by focusing on the priority items and not being distracted by the trivial elements and again the software we have allows them to do that and the feedback we have from</p>	<p>We do coach people and also train people as coaches. We train managers and how to manage the coaching, so to me what managers will need is around flexibility. You cannot treat everybody the same. Recognise and understand, for instance what motivates you may demotivate me and vice versa. Some people are</p>	<p>There should be able to think that the job is not done just because you produce the products and it is about managing people and managing customers and that is alien in our industry as it is not really done particularly well. It is more about</p>

<p>upon that period of time and thought I will need to step up again. I was never not doing the job I was doing, don't get me wrong, I guess it was that extra 10% as we demand that extra 110% from everyone and you can look at that in terms of effort and hours people do but as a business and to be successful, you have to look for that extra 10%, 20%. So when I reflected upon that time, I thought I am 10years in and I am very conscious that I do not want to step off the peddle again and I won't as I am a very reflective person and I do learn from my mistakes and recognising that you have made a mistake is an important thing. In terms of my own personal challenges, 10 years in you done the same thing and you might want to sit back on</p>	<p>partnership with them with options</p>		<p>only other one is managing a company through major incidence, and when I say incidence, I mean like recession, new contracts coming in as there are very stressful times when a new contract starts and managing that process probably for the first six months of a new contract places an incredible strain on management but those adaption or changes come and go as part of the cycle of a small business so they do not necessarily change long term, there are cyclical changes and happen continuously</p>		<p>clients is good. That is the area they get the benefit from using the software which is focused on what needs to be done</p>	<p>highly motivated by money and vice versa. Some are motivated by by goals some are demotivated by goals etc. People are different and if you want to get the most from an individual, work with them as an individual and do not treat everybody the same.</p>	<p>interaction internally and externally</p>
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<p>your achievement, you might want to take a break but I am very conscious of that and still want to give that extra 10% to the business. That is a challenge for me. The other challenge within the structure of the business is that there is no structural model in the business and we are unique in what we do around the world so we are looking at areas of the market and experimenting to an extent, though we are very knowledgeable about what the market requires, but we still occasionally have to roll the dice in different areas which is exciting but it's a challenge personally and whether we do or not. My biggest personally challenge now is 10 years in, have I still got the energy, yes I have, I got a non aligned</p>							
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	<p>complacency to sleep in. If you ask everybody I do challenge everybody in the business in a nice way very often with a smile on my face and I do not want to stop doing that and I want to be that kind of person who questions and challenges</p>							
8	<p>I'm not an academic by background but I read lots of books about business and psychologist and in my leisure time I read books and become educated about my personal development. I won't have the time to do academic courses. Maybe when I step out the business, I might consider an MBA but I do not think I need to and will continue to read books I think the vast majority of success is down to my personal attributes and that of the team which is common</p>	<p>To ensure that I best understand what the industry is doing and how it is changing. We are in the process of making a significant investment, about £600,000 which is quite considerable and we need to be very sure what that is going to do and the impact it is going to have on people who work here. That is important for me. It is staying ahead on what is going on in the industry, globally and locally. I think working with Universities,</p>	<p>Doing a course in Aston University which is the major and will continue to learn and do personal development till retirement as there is no longer a job for life. The more you need to know what is around you and what is up and coming. A lot is linked to legislation and looking at the challenges coming up, acknowledging them, learning what they are, putting a development plan to deal with them and putting them into practice</p>	<p>Self analysis...I suppose technology is the problem for me being the age I am now. I think many people growing older is the old technology of getting your VCR to work and program it. Exactly the same analogy is learning new processes, accepting new processes and understanding new processes and I think that is always a difficulty as technology moves very quickly now and keeping up with technology is a problem. That is a younger</p>	<p>IT and technology ... Not exactly a dinosaur but not up to date with others. Becoming older and working with younger people, actually a challenge when you work in a company where the majority of the workforce is approaching 60 and now we are bringing in younger people from different cultures with different ways of behaving and how to train more successors so I can retire</p>	<p>I'm hoping the university can help me achieve that</p>	<p>Continue to grow, learn and develop. I've come from being an engineer, just interested in technical things to where I'm interested in people and what makes people tick and how do you motivate people. So to me, it's continuing that journey. How do I change and develop. And it get back to what motivates people and to me, I'm highly motivated by change and development. If I thought I was going to be doing the same thing next year like I'm doing this year, I will give it. For</p>	<p>You have the issue of day to day running of the business and have the capacity to think and develop the business and that is what most smes will be suffering from because you have very shallow depths of quality of management to be able to run the business and also think strategically</p>

	<p>sense more often than not. What's right to me is reading books for my personal development</p>	<p>knowledge transfer, working with academic bodies like this exercise is important because it is useful to reflect, think and exchange. I've done this with Aston University, yourselves, Birmingham University and I think it is important. In the past I had done work with a professor of marketing at the former UCE which was interesting and knowledge transfer is very important and I think from a development point of view, I will like to do that within this business.</p>		<p>person's ...</p>			<p>me, it is about change and development but others might want stability so when I work with those people, I use a different language and words</p>	
9		<p>I think working with placements, such as people like yourself coming into business and saying we will work with you along side with you and if someone is shadowing, then learning</p>	<p>We do best practice networks and update leaning by doing courses internally and externally. We rely on trade bodies and we keep an eye on everything that is coming up especially</p>	<p>Having a big management team, this is always the question for small businesses; how big you make your management team? Small businesses always try to run lean and I will think best support</p>	<p>I suppose with the IT, I can speak to some of the younger people and they can show me. I'm not sure going to courses is a good thing for me as you need to have hands on and do it</p>	<p>We set up a forum for customers to collaborate around best practice. I noticed on LinkedIn they have many of these forums but they tend to be very personalised on how it's done with no experts on the</p>	<p>Continuous learning and working with how and what I can learn. Reading and looking for courses and new things that might be of interest to me and learning... I need to learn by talking to people and</p>	<p>We are working on partnering up with educational bodies, universities, local colleges as a double benefit because we see that we can offer project and opportuniti</p>

		takes place for best practice adoption	legislation and its just being aware about what is going on around you and taking necessary measures.	is having your management team around you that you understand and they understand you and can take responsibility and share responsibility . I think the biggest way of supporting me as the MD of the company is by the management team taking and sharing responsibility and supporting the business itself	and you go on a course, come back and forget it. Training a successor which is underway in a training plan as the company needs a successor when I retire, which I hope won't be too long and working with young people and being aware that it's not just about you.	forum. When KN came up with the BS, everybody said this is the new way of thinking that we need to align ourselves with. Now we have just a lot of different perspectives on what has to be done and people do not know who to follow and I think we need to raise the profile of what we do to be best practice consultants	working with people so it's mixing with other people and using that system to learn. And again, the internet has a massive capability and when I want new information, one of the first things I do is 'google' it and you can find out all sorts of information, training, what others are thinking. So it's about using what systems are available.	es for students who have come out of academia and not sure of where they want to go in business can learn through contact with local businesses and we get the benefit of bright, inquisitive individuals and want to help as well as have the educational resources to transfer from academia to help develop best practices so that we are not just there by ourselves. So we need to build relations with key organisations who can provide the breath and depth
10	Finish reading the books and putting them into practice. The people around me are important because their enthusiasm helps me in moving on as	Capital investment coming up and that is what we are looking at doing and of course development of the people.	As a company, one of our biggest threats was and has been agreement between shareholders and hopefully help towards	It depends again, I suppose there are few ways of looking at that; could be retirement and there are a lot of big plans concerning	I have spoken about retiring and my husband who is the managing director is also retiring and so we are trying to put a plan of	People realising that they need a performance solution that links everything together and helps them manage that in same way they	Continue working and developing and work with clients and be more flexible. To me flexibility is the key. So looking at the way the	Recognising that we are very good in a stable business but the business is not future proof. Working

<p>there is such a momentum in this business now and though we might stumble, that is common and I will say the action plan for the business is my action plan.</p>		<p>this. The company is growing and we will need to manage the growth, we need to see how fit the site is or look for alternatives. Do succession planning for key members of staff as we have an aging workforce and we need to get younger staff in. Very difficult to recruit and although there are a lot of people out there, it is difficult to get the right people.</p>	<p>the business and they are all at the back of my mind. It could be the next big contract. It's all to do with the business and how you move it forward.</p>	<p>action to transfer the management of the company to a younger generation.</p>	<p>manage other things within the business and the performance culture in the business is not managed effectively, Once organisations realise that there are tools out there like clearview to do that, we might see more take up of this technology.</p>	<p>business has changed over the last 5 – 10 years, it's a very different business now from what it was all those years ago and if we kept it the same, it will die. As you said earlier, quality used to be one of the big things and I remember in the early days, we use to work with leaders and managers on how they could improve quality. We do not do that anymore...most managers/leaders now understand that and now we are working with them on how to motivate self, motivate others, build teams and so the business is always changing so yes, view is to look to the future and think about what the customers will want and it's not about what I think, it's about what they will want and how we help them fulfil what their problems</p>	<p>with partners will help us on the journey of where we are going to and change the business because the business model will not be right in the next 100 years</p>
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