Attaining Fairness in Construction Cost Consultancy Pricing Services: A Case Study in Ghana

Abstract

Purpose
Price fairness is important amongst construction and engineering consultants as a perceived lack of it engenders unwillingness to pay amongst clients. This can create contractual disputes that negatively impact upon a consultant’s ability to generate sufficient revenue to ensure business continuity and survival. With this in mind, this research aims to analyze the pricing measurement forces needed to attain pricing fairness within a Ghanaian construction cost consultant (CC) practice. Specific objectives were to identify the key variables responsible for CC services price fairness and establish any interrelationships between them.

Methodology/ Methods
This study leans towards the positivist methodological tradition by adopting a quantitative approach. A survey questionnaire was distributed to a random sample of 79 construction CC drawn from a population of 372 who were registered with the Ghana Institution of Surveyors (GhIS). Hypothesis developed from the literature review were then tested on data collected.

Findings
The analysis revealed that fairness of construction CC services pricing is significantly related to value and affordability, pricing objectives, pricing strategies, taxes and, international trade and its effects on inputs for construction cost consultancies services.

Originality
The paper advances knowledge by providing a basis for the consideration of pricing forces in the valuing of construction CC services which hitherto has not been the case.

Keywords: Construction costs consultant, fairness, hypotheses testing, pricing forces, services,

Introduction
Price fairness first emanated from research into social exchange (Adams, 1965) and has subsequently been further defined by various authors. For example, according to Bolton et al., (2003), price fairness is both the judgment of an outcome and the process used to arrive at that outcome. Xia et al., (2004) expanded further upon this discourse and suggested that price fairness is consumer sentiment regards the difference between the price of a seller and their competitors. The perception of price fairness can also originate from previous prices, competitor prices and profits (e.g., Buyukkurt, 1986; Urbany et al., 1988; Lichtenstein and Bearden, 1989;
Alba et al., 1994; Bolton et al., 2003; Dholakia et al., 2005; Anderson and Simester, 2008). Whilst Chapuis (2012) concludes that price fairness is the judgment of a buyer about the price offered by a seller. Bolton and Alba (2006) observed that price increments that are proportionate to cost are perceived to be fair and create a positive attitude among consumers (Khandelwal and Bajpai, 2012). A positive consumer attitude represents a major variable that impacts upon the perception of price fairness (Kahneman et al., 1986a). In addition, Lichtenstein et al., (1993) indicated that pricing generally impacts upon the buying attitude of consumers. Prior knowledge of these variables and how they can be manipulated to ensure price fairness is important to clients, industry and commerce in their pursuit of revenue generation and value for money (Campbell, 1998; Joshi and Mishra, 2011; and Khandelwal and Bajpai, 2012). Diller (2008) established that price fairness encapsulates aspects relating to consistent behavior and fair dealing inter alia. Fairness is the driver of satisfaction as far as the consumption of goods and services are concerned (Campbell, 1999; Sinha and Batra 1999; Homburg et al., 2005).

Within a construction context, CC (who are also referred to as quantity surveyors (QS) particularly in the UK and Ghana), are acutely aware of the need to provide fair and equitable pricing schedules for their consultancy services to attract new clients and retain existing ones (Drew et al., 2001). The recent global economic downturn has further exacerbated this need by creating stiff competition and highly competitive profit margins (Rahim et al., 2013). The compelling evidence emanating from these aforementioned studies is that clients are psychologically compelled to compare prices of CC for perceived price fairness. Perceived price fairness also impacts upon the client’s willingness to pay and consequently, the firm’s financial security to develop their technical capabilities (Ofori, 2012). Vaidyanathan and Aggarwal (2003) classified key pricing decisions into two dichotomous groupings, namely: i) economical; and ii) psychological. In the economical dimension, consideration is given to pricing variables such as
costs, overheads, demand and supply *inter alia* in a particular industry. The psychological
dimension focuses on the perception of price by clients and this can be related to the consultant’s
reputation (Campbell, 1999). To ensure price fairness, price-setters have developed contractual
systems, procedures and checks for both supply (consultant) and demand (client) of consultancy
services (Collie et al., 2002). However, it is blatantly apparent that clients now wield the power
to opt for prices they perceived to be fair.

The perception that a price is ‘unfair’ creates client dissatisfaction (Oliver and Swan, 1989) and
heightens price consciousness (Sinha and Batra, 1999). Price unfairness may also engender
contractual dispute (such as unwillingness to pay (WTP)), slanderous comments about the
consultant being made and consequential damage to corporate reputation and/or even the use of
violence (Bougie et al., 2003). Additionally, the lack of fairness creates dissatisfaction, distrust
(Chapuis, 2012) and a reduction of intention to buy later (Oliver and Swan, 1989).

The literature reveals that extensive work has been undertaken to test hypothesis about price
fairness, for example, Kahneman et al., (1986b), Bolton et al., (2003), Vaidyanathan and
(2014); In construction research, Tuuli and Rowlinson (2009) used a conceptual approach to
derive hypotheses in a study on ‘performance consequences of psychological empowerment.’

The literature however, reveals that there is a dearth of pricing fairness research within CC
services despite the subject’s inherent importance. This research therefore aims to analyze the
pricing measurement forces needed to attain pricing fairness within a CC. Key objectives were to
identify the key variables responsible for CC services price fairness and establish any
interrelationships between these.
Theoretical Framework

An extensive literature review was conducted to establish the theoretical framework for this research. Six key factors were identified that had a direct impact upon price fairness (cf. Figure 1). These factors were: i) price and value; ii) fair price levels; iii) objectives of pricing; iv) pricing strategies adopted; v) tax obligations; and vi) inflation. Hypothesis for each of these six factors was subsequently developed and based upon independent variables within each factor. Each of these factors and hypothesis developed are now further elucidated upon.

Price and Value

Price encapsulates the amount buyers’ offer for, and the value they attached to a product or service (Farese et al., 1991; Cannon, 1998; and Perreault and McCarthy, 2002). Successful pricing is dependent upon knowledge of the value buyers’ associate with a product or service (Kar and Pani, 2011). Value is the expected satisfaction derived from a product or a service (Dowling and Uncles, 1997; Zhilin and Robin, 2004) and high value is given to higher satisfaction (Thompson, 2005). In turn, higher satisfaction stimulates the willingness of customers to pay higher prices (Munier and Camelis, 2013). Therefore, it is implied that the seller must estimate the value customers attach to a product or service in advance of the sale in order to make profit within the client’s tolerable limit of value perception (Farese et al., 1991; Brand, 1998; and Grehalva, 2004). From the above extant literature review, two main variables associated with price fairness are: i) the value of a product or service; and ii) affordability are fundamentally linked to pricing. Hence, it is appropriate to hypothesize that:

Hypothesis 1 (H1pandv): A significant e relationship exists between successful pricing fairness and (H1a) the value of a product or service and (H1b) affordability
**Fair Price Levels**

Government policies such as price regulation are used to ensure fair price levels through legislation (Labonte, 2010). In addition, pressure groups influence fair price levels through price welfare activities of consumer associations (Baldursson, 2005). The media plays a key role in the attainment of price fairness. For instance, news coverage on price has the potential to heighten the awareness of price fairness (Xia et al., 2004). The media has the ability to cause price uproar in the event of perceived lack of price fairness (Adamy, 2000). During the interaction between supply (consultant) and demand (client), both parties desire some degree of profit (Dickson and Kalapurakal, 1994), namely: suppliers intend to generate income exceeding their cost of services while clients seek excess satisfaction from utility of the products/services provided (Peter and Olson, 2008). Therefore both parties seek a fair price and therefore by extension the following hypothesis can be tested:

*Hypothesis 2* ($H_{2_{fp}}$): A significant relationship exists between fair price levels and ($H_{2_a}$) the government, ($H_{2_b}$) media action, ($H_{2_c}$) pressure group(s), ($H_{3_d}$) seller’s profit, ($H_{3_e}$) customer’s intrinsic value and ($H_{3_f}$) customer’s affordability.

**Objectives of Pricing**

Accurate pricing can differentiate between a successful or failing business entity (Shipley and Jobber, 2001) as clients utilize price as the yardstick for judging the services being offered to them (Suri and Kent, 2003; Amstrong and Green, 2011). According to Dwyer and Tanner (2006) the objective of accurate pricing is to increase profitability by: frustrating the efforts of competitors by growing market share; and raising the return on investment. Pricing objectives can also be classified as profit oriented (*target return and maximize profits*); sales oriented (*sales
growth and growth in market share); and status quo oriented (meeting competition and non-price competition) (Perreault and McCarthy, 2002). Hence, it can be hypothesized that:

**Hypothesis 3 (H3op):** A significant relationship exists between the objective of the firm in setting fair price levels and (H3a) growing market share, (H3b) increasing profitability, (H3c) raising the return on investment, and (H3d) becoming market leader.

**Pricing Strategies Adopted**

Developing successful pricing strategies (which attain a fair level of price) requires the consideration of both demand and cost (Robert, 2001; Ashok et al., 2008 Andrea, 2011). Pricing strategies must consider for example niche marketing; costs and expenses; trust building by price reduction; and winning clients from competitors (Dwyer and Tanner, 2006; and Roberts et al., 2011). However, the bedrock of pricing strategies rests upon reliable cost estimation and a reasonable profit margin to arrive at a competitive price that maximizes sales (Patsula, 2007; Gale and Swire, 2006; Burnett, 2008). Pricing strategies also involve markup pricing; and cost-plus pricing which estimate the expenses incurred in service delivery (Ball, 2009). Therefore, it can be hypothesized that:

**Hypothesis 4 (H4pss):** A significant relationship exists between the pricing strategies for achieving perceived price fairness and (H4a) cost, (H4b) profit, (H4c) demand and (H4d) competition.

**Tax Obligations**

Tax obligations upon business consultants may take many forms including indirect taxes (Value Added Tax (VAT) in some jurisdictions), local income taxes, corporate taxes and international
trade taxes (The World Bank, 2002; Hines, 2001; IFC, 2007; and Coffie, 2012; Martinez, 2012;).

Construction CC practices, irrespective of their jurisdiction of operation, are legally obliged to honour government taxes thus, it is appropriate to hypothesize that:

**Hypothesis 5 (H5a):** A significant relationship exists between the level of perceived fair price of consultancy services and (H5a) personal income tax, (H5b) VAT, (H5c) corporate tax, (H5d) profit tax (H5e), local rates and (H5f) property tax.

**Inflation**

An inflationary rise in the input costs of consultancies may occur as a result of: prevailing market forces (Schnepf, 2006); production shortfalls (Meijerink and Roza, 2007); and government policies (van den Cate, 2009; and Doole and Lowe, 2008). Each inflationary increase will require a corresponding adjustment of the price of consultancy service as failure to do so will result in reduced profits or insolvency (Oakland, 2003; Ball and Romer, 2003; Pain et al., 2008). Based upon this synthesis of literature it is pertinent to hypothesize that:

**Hypothesis 6 (H6i):** A significant relationship exists between the achievement of fairness in pricing and (H6a) input prices, (H6b) production shortfall, (H6c) effects of input market, (H6d) government policies and (H6e) international trade and trade barriers.

**Methodology**

This study leans towards the positivist methodological tradition by adopting a quantitative approach (Yu, 2001). The adoption of the positivist tradition facilitated the use of a quantitative approach for rigorous, reliable and verifiable analysis of data and testing of hypotheses (Berg, 2001). A survey questionnaire was distributed to a random sample of 79 construction CC drawn
from a population of 372 who were registered with the Ghana Institution of Surveyors (GhIS, 2014). Five point likert items were used to measure the independent variables whilst the Chi-Square statistic ($\chi^2$) was used to test hypotheses generated. SPSS was used to derive the chi square values ($\chi^2_{\text{cal}}$) which were compared to the chi-square value from the distribution table denoted as ($\chi^2\alpha$); where the $\chi^2_{\text{cal}} > \chi^2\alpha$ at a given $p$-value, the null hypothesis is rejected at the significance of the given $p$-value. A variable with a $p$-value less than 0.05 was deemed to be significant.

Findings and Discussion

Each of the six individual hypothesis generated are now tested using the theoretical frameworks that cover pricing concepts and the variables previously identified within, including: product value; market share; profitability; and competition.

Hypothesis 1 ($H1_{pa}$): A significant relationship exists between successful pricing fairness and ($H1_a$) the value of a product or service and ($H1_b$) affordability

For $H1$, two variables were considered to measure their influence upon the determination of fair prices for CC services. From Table 1, the chi square test revealed that there was a significant relationship between the independent variables and price fairness (with the value of a product ($\chi^2_{\text{cal}} = 61.190, \chi^2\alpha = 9.488, \text{df} = 4, p < 0.01$); and affordability ($\chi^2_{\text{cal}} = 52.329, \chi^2\alpha = 9.488, \text{df} = 4, p < 0.01$). That is, $\chi^2_{\text{cal}} > \chi^2\alpha$ at $p < 0.05$ for each of the independent variables, hence the null hypothesis ($H_o$) can be rejected. This result is consistent with the work of Engelson (1995) and Danbolt and Rees (2008) who revealed that pricing must match the amount that clients are willing to pay based upon the intrinsic value of the product or service offered. Hence, the value
of CC services and their affordability determine perceived fairness of price the client’s willingness to pay (Aaker, 1991).

Hypothesis 2 (H2fpl): A significant relationship exists between fair price levels and (H2a) the government, (H2b) media action, (H2c) pressure group(s), (H3d) seller’s profit, (H3e) customer’s intrinsic value and (H3f) customer’s affordability.

Table 2 summaries the results for the Chi-Square test for H2. Significant independent variables for fair pricing were: media action ($\chi^2_{cal} = 34.861, \chi^2 = 9.488, df = 4, p < 0.01$); pressure group ($\chi^2_{cal} = 36.886, \chi^2 = 9.488, df = 4, p < 0.01$); seller’s profit ($\chi^2_{cal} = 28.278, \chi^2 = 9.488, df = 4, p < 0.01$); customer’s intrinsic value ($\chi^2_{cal} = 27.899, \chi^2 = 9.488, df = 4, p < 0.01$); and customer’s affordability ($\chi^2 = 76.359, \chi^2 = 9.488, df = 4, p < 0.01$). For each of the independent variables, $\chi^2_{cal} > \chi^2 = 9.488$ at $p < 0.05$, hence, the null hypothesis was rejected. These results imply these aforementioned independent variables are related to achieving fair price. However, no relationship was apparent between the variable ‘the government’ ($\chi^2_{cal} = 1.316, \chi^2 = 9.488, df = 4, p = .859$) and the achievement of fair price levels since $\chi^2_{cal} < \chi^2 = 9.488$ at $p > 0.05$. Hence, the null hypothesis for this variable was accepted. The influential power of media cannot be underestimated in a democratic country such as Ghana (Temin and Smith, 2002). The media can influence a CC’s price level through advertising and media discussion (Adamy, 2000) especially in situations where the price is perceived as unfair. Media discussions have the potential to stimulate clients’ intrinsic value of services provided. Other significant variables include pressure group; seller’s profit; customer’s intrinsic value; and customer’s affordability. Pressure groups’ demanding better services and realistic prices exerts pressure on price setters for
attainment of fairness (Baldursson, 2005). The seller’s profit is the means by which service providers, notably CC are rewarded. Profits are incentives for the provision of services to clients (Garicano and Santos, 2004) to ensure the success of the consultancy contract. Intrinsic value represents the enjoyment derived from the use of the services provided by consultants (Davis et al., 1992). The feeling of joy has effects upon client behaviour (Tria, 1980) which will motivate them to pay fair prices to the consultant. Price fairness is linked to the affordability a service because of the enjoyment derived (intrinsic value) (Yirenkyi, 2012). It is therefore apparent that the significance of forces for attaining fair price levels for construction CC services is in congruence with the earlier works of Adamy (2000).

Hypothesis 3 (H3op): A significant relationship exists between the objective of the firm in setting fair price levels and (H3a) growing market share, (H3b) increasing profitability, (H3c) raising the return on investment, and (H3d) becoming market leader.

The Chi-Square test results for H3 are presented in Table 3 below. Results indicate the presence of a significant relationship between fair price levels and the following independent variables, namely: increase market share ($\chi^2_{cal} = 49.544, \chi^2\alpha = 9.488, df = 4, p < 0.01$); increase profitability ($\chi^2_{cal} = 14.861, X^2\alpha = 9.488, df = 4, p = 0.05$); return on investment ($X^2_{cal} = 68.658, X^2\alpha = 9.488, df = 4, p < 0.01$); and market leader ($\chi^2_{cal} = 42.456, \chi^2\alpha = 9.488, df = 4, p < 0.01$). Because, $X^2_{cal} > \chi^2\alpha (9.488)$ at $p < 0.05$ in all cases of independent variables, the null hypothesis $H_0$ at a significance level of 0.05 was rejected. These variables may be conveniently grouped as company objectives in setting fair prices for clients may result in business success, failure and
corporate reputational enhancements or vice versa. Hence, it is imperative that construction cost consultants afford great consideration when formulating such objectives.

<Insert Table 3 about here>

**Hypothesis 4 (H4):** A significant relationship exists between the pricing strategies for achieving perceived price fairness and \((H4_a)\) cost, \((H4_b)\) profit, \((H4_c)\) demand and \((H4_d)\) competition.

The Chi-Square test for \(H4\) demonstrates a significant relationship between price fairness and pricing strategy independents variables (refer to Table 4). These independent variables comprise of: cost \((\chi^2_{cal} = 42.873, \chi^2\alpha = 7.815, df = 3, p < 0.01)\); profit \((\chi^2_{cal} = 59.038, \chi^2\alpha = 9.488, df = 4, p < 0.01)\); demand \((\chi^2_{cal} = 33.354, \chi^2\alpha = 7.815, df = 3, p < 0.01)\); and competition \((\chi^2_{cal} = 40.557, \chi^2\alpha = 9.488, df = 4, p < 0.01)\). Since the \(\chi^2_{cal} > \chi^2\alpha\) at \(p < 0.05\) for all independent variables, the null hypothesis \((H_0)\) can be rejected at a significance level of 0.05. This suggests pricing strategy does affect the perceived fairness of construction cost consultancy services pricing and that greater consideration of these variables must be given by price setters within such firms.

<Insert Table 4 about here>

**Hypothesis 5 (H5):** A significant relationship exists between the level of perceived fair price of consultancy services and \((H5_a)\) personal income tax, \((H5_b)\) VAT, \((H5_c)\) corporate tax, \((H5_d)\) profit tax \((H5_e)\), local rates and \((H5_f)\) property tax.

The Chi-Square test results for H5 (Table 5) reveal that there is a significant relationship between the level of consultancy services prices and personal income tax \((\chi^2_{cal} = 20.051, \chi^2\alpha\)
=9.488, df = 4, p < 0.01); VAT \( (\chi^2_{\text{cal}} = 27.519, \chi^2\alpha = 9.488, \text{df} = 4, p < 0.01) \); corporate tax \( (\chi^2_{\text{cal}} = 36.506, \chi^2\alpha = 9.488, \text{df} = 4, p < 0.01) \); profit tax \( (\chi^2_{\text{cal}} = 31.063, \text{df} = 4, p < 0.01, \chi^2\alpha = 14.860) \); local rates \( (\chi^2_{\text{cal}} = 22.203, \chi^2\alpha = 14.860, \text{df} = 4, p < 0.01) \); and property tax \( (\chi^2_{\text{cal}} = 22.835, \text{df} = 4, p < 0.01, \chi^2\alpha = 9.488) \). Since the \( \chi^2_{\text{cal}} > \chi^2\alpha \) at \( p < 0.05 \) for tax variables above, the null hypothesis \( H_0 \) can be rejected. Logically therefore, it can be concluded that the fairness of construction cost consultancy services pricing is dependent upon prevailing taxation measures. Hence, although indirect government intervention was not perceived to be a significant variable in terms of industry’s setting of self-regulated fair price levels (refer to \( H_2_{\text{fpl}} \)), clearly they are directly responsible for setting taxation rates.

\[ \text{Insert Table 5 about here} \]

\textit{Hypothesis 6 (H6i):} A significant relationship exists between the achievement of fairness in pricing and \( (H6a) \) input prices, \( (H6b) \) production shortfall, \( (H6c) \) effects of input market, \( (H6d) \) government policies and \( (H6e) \) international trade and trade barriers.

The Chi-Square results for H6i (Table 6) demonstrated that there is significant relationship between input prices \( (\chi^2_{\text{cal}} = 43.722, \chi^2\alpha = 9.488, \text{df} = 4, p < 0.01) \); production shortfall \( (X^2_{\text{cal}} = 27.266, X^2\alpha = 9.488, \text{df} = 4, p < 0.01) \); effects of input market \( (\chi^2_{\text{cal}} = 40.304, \chi^2\alpha = 9.488, \text{df} = 4, p < 0.01) \); government policies \( (\chi^2_{\text{cal}} = 26.127, X^2\alpha = 9.488, \text{df} = 4, p < 0.01) \); and international trade and trade barriers \( (\chi^2_{\text{cal}} = 23.595, \chi^2\alpha = 9.488, \text{df} = 4, p < 0.01) \). Since the \( \chi^2_{\text{cal}} > \chi^2\alpha \) at \( p < 0.05 \), the null hypothesis \( H_0 \) was rejected. Whilst globalization has the positive benefit of narrowing the ‘business distance’ between firms and international territories/ boundaries (Liu, 2008), it also exerts influence upon practice \textit{inter alia} consultancy pricing levels (Pole-Manning, 2002). Consequently, construction cost consultancy services must consider the effects of
international trade on local economies. The inflationary forces of input prices; production shortfall; effects of input market; government policies; and international trade and trade barriers are significantly related to the achievement of fair price of construction cost consultancy services. This result is in agreement with the works of Oakland (2003), Schnepf (2006), Meijerink and Roza (2007), Doole and Lowe (2008), Pain et al., (2008), and van den Cate (2009). Hence, it is clear that inflationary forces are significantly related to the fairness of construction cost consultancy services pricing.

<Insert Table 6 about here>

**Conclusion**

This research sought to establish the relationships that exist between construction cost consultancy services and the various pricing variables that affect the client’s perceived fairness of price. In practice, the variables responsible for price cost consultancy fairness are seldom considered and therefore, this work has broken new ground. Price fairness is an essential ingredient in construction cost consultancy practice as it provides the client a better value for service and an opportunity for the consultant to break-even. Hence, the attainment of price fairness in consultancy practice must be within the framework of value for services; the influence of media and pressure groups; objective and strategies of the firm; taxation; and inflationary forces. A major limitation of this work was that it focused upon collecting the views of professional practitioners and not clients themselves. Hence, future work is required to conduct a repeat survey of clients that could then be compared and contrasted against the results presented here.
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Figure 1 – Literature synthesis: determination of factors and variables

Extant literature synthesis

Factors and hypothesis generation

- $F_1$ Pricing strategies adopted ($H_{1_pandv}$)

- $F_2$ Fair price levels ($H_{2_fpi}$)

- $F_3$ Objectives of pricing ($H_{3_op}$)

- $F_4$ Pricing strategies adopted ($H_{4_psa}$)

- $F_5$ Tax obligations ($H_{5_tax}$)

- $F_6$ Inflation ($H_{6}$)

Variables within factors

- $F_1 V_1$ Value of product or service; and $F_1 V_2$ affordability.

- $F_2 V_1$ The government; $F_2 V_2$ media action; $F_2 V_3$ pressure group(s); $F_2 V_4$ seller’s profit; $F_2 V_5$ customer intrinsic value; and $F_2 V_6$ customer affordability.

- $F_3 V_1$ Growing market share; $F_3 V_2$ increasing profitability; $F_3 V_3$ raising the return on investment; and $F_3 V_4$ becoming market leader.

- $F_4 V_1$ Cost; $F_4 V_2$ profit; $F_4 V_3$ demand; and $F_4 V_4$ competition.

- $F_5 V_1$ Personal income tax; $F_5 V_2$ VAT; $F_5 V_3$ corporate tax; $F_5 V_4$ profit tax; $F_5 V_5$ local rates; and $F_5 V_6$ property tax.

- $F_6 V_1$ Input prices; $F_6 V_2$ production shortfall; $F_6 V_3$ effects of input market; $F_6 V_4$ government policies; and $F_6 V_5$ international trade and trade barriers.

Price fairness
Table 1 - Value and affordability construction cost consultancy services pricing

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Chi-Square (X^2.cal)</th>
<th>X^2α</th>
<th>df</th>
<th>p-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Value of a product or service</td>
<td>61.190α</td>
<td>9.488</td>
<td>4</td>
<td>0.000</td>
<td>Reject</td>
</tr>
<tr>
<td>2. Affordability</td>
<td>52.329α</td>
<td>9.488</td>
<td>4</td>
<td>0.000</td>
<td>Reject</td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.8.-
Table 2 - Achieving fair construction cost consultancy services pricing price levels

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Chi-Square (X²&lt;sub&gt;cal&lt;/sub&gt;)</th>
<th>X²a</th>
<th>df</th>
<th>p-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Government</td>
<td>1.316&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.859</td>
<td>Accept</td>
</tr>
<tr>
<td>2. Media action</td>
<td>34.861&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>3. Pressure group(s)</td>
<td>36.886&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>4. Seller’s profit</td>
<td>28.278&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>5. Customer’s intrinsic value</td>
<td>27.899&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>6. Customer’s affordability</td>
<td>76.359&lt;sup&gt;b&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.8.
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.6.
### Table 3 - Pricing objectives affecting fair construction cost consultancy services pricing

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Chi-Square (X²&lt;sub&gt;cal&lt;/sub&gt;)</th>
<th>X²&lt;sub&gt;a&lt;/sub&gt;</th>
<th>df</th>
<th>p-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increase market share</td>
<td>49.544&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>2. Increase profitability</td>
<td>14.861&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.005</td>
<td>Reject</td>
</tr>
<tr>
<td>3. Return on investment</td>
<td>68.658&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>4. Market leader</td>
<td>42.456&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.8.
Table 4 - Pricing Strategies for Pricing

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Chi-Square (X²_{cal})</th>
<th>X²α</th>
<th>df</th>
<th>p-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cost</td>
<td>42.873</td>
<td>7.815</td>
<td>3</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>2. Profit</td>
<td>59.038&lt;sup&gt;b&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>3. Demand</td>
<td>33.354&lt;sup&gt;a&lt;/sup&gt;</td>
<td>7.815</td>
<td>3</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>4. Competition</td>
<td>40.557&lt;sup&gt;b&lt;/sup&gt;</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 19.8.
b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.8.
Table 5 - Considering taxes to ensure fair levels of construction cost consultancy services pricing

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Chi-Square</th>
<th>$X^2a$</th>
<th>df</th>
<th>$p$-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>($X^2_{cat}$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Personal income tax</td>
<td>20.051</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>2. VAT/ NHIL</td>
<td>27.519</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>3. Corporate tax</td>
<td>36.506</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>4. Profit tax</td>
<td>31.063</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>5. Local rates</td>
<td>22.203</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>6. Property tax</td>
<td>22.835</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
</tbody>
</table>

a. 0 cells (0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.8
Table 6 - International trade and inputs for construction cost consultancy services pricing

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Chi Square</th>
<th>$X^2\alpha$</th>
<th>df</th>
<th>$p$-value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Input prices</td>
<td>43.722$^a$</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>2. Production shortfall</td>
<td>27.266$^a$</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>3. Effects of input market</td>
<td>40.304$^a$</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
<tr>
<td>5. International trade and trade barriers</td>
<td>23.595$^a$</td>
<td>9.488</td>
<td>4</td>
<td>.000</td>
<td>Reject</td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 15.8.