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Price element of marketing mix: Its effect on customer experience in construction industries

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| CHRONICLE | A B S T R A C T |
| Article history: Received: May 30, 2020 Received in revised format: May 30 2020 Accepted: June 19, 2020 Available online: June 19, 2020 Keywords: Price value Price advantage Price penetration Marketing mix | The objective of this paper was to identify aspects of pricing strategy that impact customer experi- ence within the construction industries. A literature review examined the antecedents driving cus- tomer satisfaction. A conceptual framework relating two dimensions namely, pricing strategy and customer experience was developed to evaluate customer satisfaction. Several latent variables re- lated to the marketing mix and customer experience were introduced. Latent variables were meas- ured through a 5-point Likert Scale questionnaire and analyzed by Structural Equation Modelling. Three aspects of pricing strategy and four aspects of customer experience were identified as param- eters pertinent to customer satisfaction. Findings showed that price value, price advantage and price penetration influenced pricing strategy. Reputation, confidence, information and expertise influ- enced customer experience. This paper contributes to understanding the significance of pricing strategy and customer experience as the foundation for customer satisfaction and business profita- |
| Construction industry | bility. These findings were presented as recommendations to the construction industry. |

1. Introduction

Improving customer satisfaction is a fundamental concern for continued business. In many industries, customer satisfaction is a consequence of a series of customer experiences (Do & Vu, 2020). In the construction industry, customer experiences represent a collection of customer-supplier interaction accumulated by trial and error. Identifying customer experience is the fundamental process to deliver delightful customer experiences but unfortunately, not enough has been done in to understand customer experience (Mokhtariani, Sebt, & Davoudpour, 2017). Empirical studies are needed to elucidate what delights the customer and ensures customer experience leading to customer satisfaction and ultimately, repeat business. Many industries, including the construction industry, leverage the competitive advantage by increasing the buyer potential of the customer. Hence, a correct understanding of customer experience is vital to create a long-term sustainable advantage for any organization (Lemon & Verhoef, 2016). The characterization of customer experience is thus pertinent to enable the product (or service) provider to grasp the underlying precepts of what delights the customer. When this experience is overlaid with the marketing mix, in particular the price element, the endeavour to deliver customer expectations become stringent. The pricing strategy is an important strategy for any business. It is vital to examine the pricing problem and arrive at a pricing strategy that not only prevent a pricing failure but also lead a way to profits. Therefore, it is necessary to understand how costs affect pricing and profits. This understanding must then integrate costs with market-based pricing with elements of profitability. It must also capture the full value through price segmentation, adapt a strategy in a changing life-cycle environment and develop models to aid in anticipating purchase behaviour. In the sequel, it must determine the constraints on profit maximization (Ali, Al-Aali, & Al-Owaihan, 2013). Driven by this context, this study elucidates how the price element of the marketing mix affects customer satisfaction.

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2. Theoretical Background and Hypotheses Development

A customer is an entity that purchases a product or service and a link to business success (Khadka & Maharjan, 2017). Customer satisfaction is a prerogative of the buyer's loyalty and purchase intentions for repeat purchase (Siddiqi, 2011). It appears that stronger customer satisfaction is associated with consistent effect on purchase intentions. Additionally, high economic returns follow from exceptional customer satisfaction.

2.1 Customer Experience in the Construction Industry

Customer satisfaction is an integral part of business operations that allows construction companies to incorporate into their business model. Research shows that positive customer satisfaction requires construction company activities that aim to optimize customer benefits during the marketing and construction processes (Kotler & Armstrong, 2010). Customers measure their satisfaction directly through the experience that they perceive. This is particularly so because customers are increasingly discerning about their expectations. Consequently, customer experience culminating in customer satisfaction cannot be divorced of each other and are therefore, issues that need to be underscored in the construction industry (Othman, 2015).

2.2 Marketing Mix

The marketing mix was originally proposed by Neil Borden in 1953. Later, Jerome McCarthy defined the 4P's, as product, price, placement and promotion as a combination of all the factors which managers may leverage to satisfy market needs (Dominici, 2009).

A product is a good or service an organization produces on a large scale and offered to meet a customer requirement. Price is the cost the customer pays for the good or service. The price is perhaps the foremost factor in marketing. This price is determined by all aspects of the production of the product. If a company cannot rise above the base line competition and still make a profit, then it is a losing proposition (Othman et al., 2019). Place is where the product is made available to the customer and can be any location, physical or virtual. Promotion is product exposure and public relations efforts through advertising including word of mouth, direct mail, email and social media. Promotion is a communication tool that encapsulates the first three P's by putting the right product, at the right price at the right place - at the right time, with the goal of it being irresistible to customers (Ross, 2012).

Although the 4Ps marketing mix is a milestone of marketing theory it is not a scientific theory (Sudari et al., 2019). It is merely a conceptual framework that identifies the principal decision-making managers make in configuring their offerings (Goi, 2009). More recently, the marketing mix has been extended to the 7P's to include people, processes and physical environment particularly for the services marketing mix (Yelkur, 2000). However, the 4P's marketing model of Jerome McCarthy is the most renowned product marketing model. Together with its marketing strategy, the model offers a product-prize mix of the company enabling customer satisfaction through careful delivery and communication (Vliet, 2011).

2.3 Marketing Mix - Price

Price is the amount of money that the customer has to pay for a product or service. Within and organization, management arbitrates price through the pricing strategy that is regarded as imperative for any business. The strategy needs to examine the pricing problems and arrive at a pricing strategy that not only prevents a pricing failure but also leads a way to achieve profits. Therefore, it is necessary to understand how costs affect pricing and profits. This understanding must integrate costs with market-based pricing with elements of profitability. It must then capture the full value through price segmentation, adapt the strategy in a changing life-cycle environment and develop models to aid in anticipating purchase behaviour. In the sequel, it must determine the constraints on profit maximization (Ali, Al-Aali, & Al-Owaihan, 2013).

2.4 Conceptual Model

Having conducted an extensive literature review, it was conceptualized that customer satisfaction is related to two dimensions. These are the pricing strategy and customer experience as shown in Fig. Pricing strategy is reflected by the latent variables price value, price advantage and price penetration. Similarly, customer experience is reflected by reputation, confidence, informed and expertise. The questionnaire design was based on the literature review and the conceptual model as shown in Fig. 1.



Fig. 1. Conceptual Model.

2.5 Hypotheses Postulated

The conceptual model shown in Fig was built from the arguments in the literature review presented in Section 2.1 to 2.3. The constructs developed for price specialization were based on ideas of meeting the competition, maximizing return on investment, and customer value (Hausman, 2010). The constructs for customer experience was developed based on aspects of customer experience pertinent to the construction industry (Constantinides, 2006). In both cases, the constructs were deliberated based on the authors extensive experience in the construction industry. Anchoring on this conceptual model, several hypotheses were postulated as shown in Fig. 2. For reasons of simplicity, only the alternative hypotheses (Ha) are expressed:

- 1. Price Specialization
 - H1a: Price Value is positively related to Pricing Strategy.
 - H2a: Price Advantage is positively related to Pricing Strategy.
 - H3a: Price Penetration is positively related to Pricing Strategy.
 - H4a: Pricing Strategy is positively related to Customer Satisfaction.
- 2. Customer Experience

H5a: Reputation is positively related to Customer Experience. H6a: Confidence is positively related to Customer Experience.

H7a: Informed is positively related to Customer Experience.

H8a: Expertise is positively related to Customer Experience.

H9a: Customer Experience is positively related to Customer Satisfaction.



Fig. 2. Structural Model with Hypotheses, H1 – H9

3. Methodology

The research methodology involved creating the questionnaire design, the pilot study and the main study.

3.1 Questionnaire Design

The research instrument (the questionnaire) was based on the theory that customer satisfaction depended on two dimensions, namely pricing strategy and customer experience. Pricing strategy was based on three constructs (price value, price advantage and price penetration). Similarly, customer experience was based on four constructs (reputation, confidence, informed and expertise). The constructs were reflected by the number of questionnaire items associated with that construct as shown in Table 1. Thus, the research instrument was created with 10 constructs, and 48 questionnaire items as shown in Table 1. Reflected here meant that the latent variables can be estimated by the questionnaire items.

| Table 1 | |
|---------|--|
|---------|--|

| Constructs | used | in | Study | |
|------------|------|----|-------|--|
| | | | | |

| No. | Construct | Code | Items |
|-----|-----------------------|------|-------|
| 1 | Price Value | PV | 5 |
| 2 | Price Advantage | PA | 4 |
| 3 | Price Penetration | PP | 3 |
| 4 | Pricing Strategy | PS | 4 |
| 5 | Reputation | RP | 6 |
| 6 | Confidence | CN | 5 |
| 7 | Informed | IN | 4 |
| 8 | Expertise | EX | 7 |
| 9 | Customer Experience | CE | 5 |
| 10 | Customer Satisfaction | SA | 5 |

Once the constructs were identified, questionnaire items were drafted. The questions were phrased to reflect the concept being tested as directly as possible. It was ensured that the response did correspond to an interval scale since the questionnaire was prepared with the Likert Scale analysis in mind. The questions were read and re-read to improve the accuracy of the respondent's understanding. A few questions were also used to collect data about the respondent's demography. Next, an interval validation was performed whereby the questions were evaluated for comprehension and ambiguity. A peer review by the researcher's colleagues was used to improve the questionnaire item wording and meaning. No responses to the questions were anticipated. The questionnaire layout and the number of questions were also considered.

3.2 Field test

The research instrument was field tested for face validity and content validity with ten colleagues who were regarded as domain experts. They are not from those who would eventually respond to the questionnaire. Face validity assessments were made to ensure that the questionnaire adequately assessed what was intended. This was a subjective assessment of whether the questionnaire items were a valid measure of the construct being measured. Content validity was checked to ensure that the questions captured the content as intended and conveyed the same meaning to different respondents. Content validity was established when the content of a questions was agreed by more than half of the reviewers. Validation of the questionnaire was important to make fine adjustments to the questions to exclude ambiguity (Agrawal, Garimella, Roshan, & Ghosh, 2009). Thus, validity ensured that the questionnaire items were essential (face validity) and it meant the same thing to different respondents (content validity). All responses were reviewed for wording, sequence and understandability of the questions.

3.3 Pilot Study

The research instrument was then used for the pilot study. A pilot study was useful to study responses, obtain feedback for further changes, and to ensure that the time to complete the survey was adequate (Agrawal, Garimella, Roshan, & Ghosh, 2009). The questionnaire was administered to potential respondents for responses with a sample size of 30 as adequate (Birkett & Day, 1994). This was much more than the suggested recommended number (Bollen D. G., 2002). Using Bollen's equation,

$$n = \left(\frac{2k}{k-1}\right) \left(Z_{\alpha/2} + Z_{\beta}\right)^{2} / \ln\left(\frac{1-C_{a1}}{1-C_{a2}}\right)^{2} + 2k$$

for $\alpha = 0.05$, power = 0.90 or 1 - power = $\beta = 0.10$, coefficient alpha reference $C_{a1} = 0.00$, coefficient alpha test $C_{a2} = 0.70$, and number of items k = 48, then the sample size $n \approx 17$.

The questionnaires were then collated and the data was analyzed for Cronbach's alpha using IBM SPSS version 21. The analysis yielded the Internal Consistency Reliability of the data through Cronbach's alpha C_{α} . Cronbach's alpha reflected correlations between different questionnaire sections. Cronbach's alpha values greater than 0.7 were adequate, while > 0.9was very good. Questionnaire items that had low internal consistency reliability were excluded from the questionnaire (Radhakrishna, 2007). Additionally, it was ensured that no construct had less than 3 items as a suggested pre-requisite for later analysis through Structural Equation Modeling (Bollen, 1989).

3.4 Main Study

The research instrument was administered to the intended sample population which consisted of the customers of construction companies. Exploratory Factor Analysis (EFA) was used to ascertain if the number of variables corresponded to the number of constructs. EFA was also utilized to address multicollinearity, evaluate construct validity and discriminant validity. Factors meeting the relevant test criteria were used to create the structural model. Confirmatory Factor Analysis (CFA) was used to determine significant estimates and to evaluate model fits. Model modification was then exercised by excluding insignificant constructs and re-evaluating the model fits.

3.5 Sample Size

For the main study, a total of 300 respondents were targeted but only 210 respondents gave useable questionnaire. The sample

size was determined by Cochran's formula (Cochran, 2007). The sample size is given by $n_0 = \frac{Z_{\alpha}^2 p(1-p)}{\alpha^2}$. For finite

populations, the corrected formula is $n = \frac{n_o}{1 + \frac{n_0 - 1}{N_c}}$. Using $\alpha = 0.05$, and p = 0.5, $Z_{\alpha} = 1.64$, $n_o = 270$ units. For a finite

population of N = 1000, n = 213 units.

3.6 Data Collection

Based on the Cochran's sample size formula, the sample size was 213. Although 300 questionnaires were issued, after eliminating incomplete or errorneous responses, only 210 questionnaires were usable. Data collection was conducted through face-to-face interview over a period of four weeks. Respondents were assured of the confidentiality and security of their responses.

3.7 Data Analysis

In this research, a causal model of the effect of the price element in marketing mix in the customer satisfaction was studied. The study used a Structural Equation Modelling (SEM) method that involved path analysis, Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis outlined by (Hox & Bechger, 2010). An Exploratory Factor Analysis was used to create a feasible model underlying the objectives of this research. The measurement model, representing the theory specifying how measured variables come together to represent the theory, was tested using Confirmatory Factor Analysis. The structural model represents the theory that shows how constructs are related to other constructs. This is also called the causal model since it tests the proposed causal relationships. Causal relationships were tested against several model fits. The model fit analysis was conducted using IBM SPSS-AMOS software version 21. This method was chosen over other Covariance Based (CB-SEM) methods, such as the Partial Least Squares (PLS-SEM) method owing to the availability of fit indices that are more easily used for model fit purposes. Additionally, CB-SEM method are more suited for theory testing, theory confirmation or comparing alternative theories (Hair, Hult, Ringle, & Sarstedt, 2014).

4. Results and Findings

The breakdown of the respondents is available by gender, education, age and income.

4.1 Gender

Of the 210 respondents, 115 (54.76 percent) were male, 95 (45.24 percent) were female.

4.2 Education

Of the 210 respondents, 23 (10.95 percent) had a school certificate, 62 (29.52 percent) had a high school certificate, 80 (38.1 percent) had a university degree, 26 (12.38 percent) had a Masters' degree, and 19 (9.05 percent) had a PhD degree. See Fig. 3 for a graphical representation.

4.3 Age

Of the 210 respondents, 19 (9.05 percent) were aged between 25 or less, 32 (15.24 percent) were aged between 25 to 34, 39 (18.57 percent) were aged between 35 to 45, 75 (35.71 percent) were aged between 45 to 55, 39 (18.57 percent) were aged between 55 to 65, and 6 (2.86 percent) were aged 65 or more. The breakdown by age is shown in Fig. 4.



4.4 Income

Of the 210 respondents, 61 (29.05 percent) earned low income, 102 (48.57 percent) earned medium income, and 47 (22.38 percent) earned high income as shown in Fig. 5.

4.5 Data Analysis and Results

The first step in data analysis was to look for the accuracy in data entry, missing values. A descriptive data analysis showed that the Skewness were well within acceptable range or ±2 (Garson, 2012). All Kurtosis values were also with acceptable range of ±2 (Garson, 2012). Next the data was examined for outliers. A multivariate outlier detection was done using Mahalanobis Distance. Results showed that for 48 variables with alpha = 0.001, the critical D square value was 97.039. The threshold value of alpha = 0.001 was suggested by (Tabachnick & Fidell, 2007). However, no outliers were found. A histogram of the Mahalanobis Distance is shown in Fig. 6. Two tests of normality were conducted, i.e. Kolmogorov-Smirnov and Shapiro-Wilk tests. If the *p*-value was greater than the chosen alpha, e.g. alpha = 0.05 then the null hypothesis that the data is normally distributed is retained. If the test statistic p-value was lesser than the chosen alpha, e.g. alpha = 0.05, then the null hypothesis that the data is normally distributed is rejected. The Kolmogorov-Smirnov tests of normality statistic is W = 0.044with p = 0.20 and hence the data is not significantly different from a normal distribution. The Shapiro-Wilk tests of normality statistic is W = 0.992 with p = 0.292 and hence, the data is not significantly different from a normal distribution. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy greater than 0.5 would suggest that the sample size is adequate. Since the KMO is 0.865, the sample size is adequate to assess the factor structure. The Bartlett's test of sphericity lesser than some chosen alpha, e.g. alpha = 0.05 would suggest that at least 2 items are highly correlated (Tabachnick & Fidell, 2007). The Bartlett's test of sphericity gave a Chi Square value of 7672 approximately, with degrees of freedom (df) 1035 and p = 0.0suggesting that at least two items were highly correlated. Hence, a factor analysis was conducted.

An Exploratory Factor Analysis (EFA) was conducted using all 48 items. The method was based on the Principal Components Analysis (PCA) and Varimax rotation with Kaiser normalization. The default method by IBM SPSS used for factor extraction is based on the Kaiser criteria Eigenvalues greater than 1. From Table 2, the total variance explained shows 9 factors with Eigenvalues greater than 1. However, from Fig. 7, the graphical data showed that there were clearly 10 constructs as shown in the scree plot. Hence, the number of factors was determined by drawing a straight line through the smaller Eigenvalues until a departure from this line occurred. The number of points above this departure indicated the number of factors to be retained (Williams, Brown, & Onsman, 2012).



Fig. 6. Histogram of Mahalanobis Distance

Fig. 7. Scree Plot of Items

| Table | 2 | | | |
|---------|----------|----|-------|-----|
| Total ' | Variance | Ex | plaiı | ned |

| | | Initial Eigenvalues | | Rota | tion Sums of Squared I | Loadings |
|-----------|--------|---------------------|--------------|-------|------------------------|--------------|
| Component | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 12.801 | 29.094 | 29.094 | 5.076 | 11.537 | 11.537 |
| 2 | 8.187 | 18.607 | 47.701 | 4.504 | 10.236 | 21.773 |
| 3 | 2.855 | 6.489 | 54.190 | 4.177 | 9.492 | 31.265 |
| 4 | 2.568 | 5.836 | 60.027 | 3.809 | 8.658 | 39.923 |
| 5 | 1.967 | 4.470 | 64.497 | 3.768 | 8.564 | 48.487 |
| 6 | 1.806 | 4.105 | 68.602 | 3.564 | 8.100 | 56.587 |
| 7 | 1.602 | 3.642 | 72.244 | 3.316 | 7.537 | 64.123 |
| 8 | 1.418 | 3.223 | 75.467 | 3.035 | 6.897 | 71.020 |
| 9 | 0.941 | 2.139 | 77.606 | 2.011 | 4.570 | 75.590 |
| 10 | .792 | 1.801 | 79.406 | 1.679 | 3.817 | 79.406 |
| | | | | | | |
| 44 | .065 | 0.147 | 100.000 | | | |

Further, the meaningfulness of latent factors is ultimately dependent on researcher definition. The reason for a thorough and systematic factor analyses is to isolate items with high loadings in the resultant pattern matrices (Henson & Roberts, 2006). From Table 3, it is plausible to accept 10 factors as reflecting the constructs in the conceptual model. The communalities of all items were also greater than 0.6 (Hair, Hult, Ringle, & Sarstedt, 2014). This is the proportion of variance of each item that can be explained by the underlying factor (latent variable) as shown in Table .

Collinearity results that showed items with a Variance Inflation Factor (VIF) above 10 were excluded (EX1, EX3, EX4, EX5). The collinearity was recalculated and all values were below 10 (Hair, Black, Babin, & Anderson, 2014). See Table 3. Cronbach's alpha analysis was used as a measure of internal consistency among the items within a construct. A construct was considered consistent if the reliability coefficient was greater than 0.7 (Hair, Black, Babin, & Anderson, 2014). Cronbach's alpha analysis also showed that all constructs were highly reliable as shown in Table 4.

Further analysis was conducted on the Average Variance Extracted (AVE) and the Composite Reliability (CR). Convergent validity was established if AVE > 0.5 and CR > 0.7. The discriminant validity was determined by ensuring that all the intercorrelations between the constructs were smaller than the square root of the AVE for that construct (Fornell & Larcker, 1981). The results are shown collectively in Table 6. Since all the convergent and divergent validity were confirmed (see Table 6), all constructs were allowed into the structural model as shown in Fig. 8. A Confirmatory Factor Analysis was then conducted using IBM SPSS-AMOS version 21.

| Table 3 | | |
|-----------------|-----------------|--------------|
| Factor Loading, | Communality and | Collinearity |

| | | | | | Compone | nt Loading | | | | | Communality | Collinearity |
|-------|------|------|------|------|---------|------------|------|------|------|------|-------------|--------------|
| Items | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Extraction | VIF |
| PV1 | .100 | .807 | 011 | 041 | 014 | 068 | .201 | .205 | .127 | .021 | .767 | 3.667 |
| PV2 | 012 | .863 | .018 | .034 | .019 | 079 | .145 | .145 | .120 | 006 | .810 | 3.933 |
| PV3 | 051 | .861 | 008 | 010 | .079 | 048 | .158 | .135 | .123 | .018 | .811 | 3.662 |
| PV4 | 033 | .849 | 013 | 097 | 049 | 031 | .152 | .151 | .155 | .029 | .805 | 4.317 |
| PV5 | 013 | .836 | .037 | 015 | 027 | .012 | .192 | .168 | .130 | .013 | .783 | 3.578 |
| PA1 | 014 | .196 | .055 | .019 | .081 | .011 | .123 | .819 | .031 | .056 | .738 | 2.586 |
| PA2 | .007 | .175 | .053 | 069 | .005 | 002 | .181 | .809 | .152 | 038 | .751 | 2.695 |
| PA3 | .008 | .217 | .164 | 028 | .028 | 013 | .209 | .776 | .043 | 033 | .724 | 2.789 |
| PA4 | 005 | .215 | .037 | 002 | .072 | 042 | .236 | .771 | .148 | 019 | .728 | 2.942 |
| PP1 | .086 | .402 | .010 | .094 | 022 | .016 | .307 | .193 | .759 | 012 | .887 | 5.253 |
| PP2 | .037 | .401 | .066 | .106 | 047 | 056 | .301 | .201 | .757 | 027 | .888 | 5.445 |
| PP3 | .047 | .413 | .043 | .032 | 035 | .011 | .350 | .179 | .734 | .046 | .872 | 5.013 |
| PS1 | .056 | .203 | .072 | .042 | .003 | .065 | .843 | .181 | .103 | .069 | .814 | 3.290 |
| PS2 | .043 | .181 | .066 | 018 | .073 | 008 | .799 | .268 | .154 | 043 | .780 | 3.310 |
| PS3 | 025 | .270 | .062 | .069 | .011 | 012 | .804 | .199 | .196 | 079 | .812 | 3.976 |
| PS4 | .018 | .299 | .083 | .038 | .033 | 026 | .789 | .162 | .163 | 022 | .775 | 3.295 |
| RP1 | .829 | 057 | .170 | .196 | .183 | .043 | .072 | 035 | .089 | .006 | .807 | 4.108 |
| RP2 | .826 | 002 | .151 | .110 | .193 | .115 | .030 | .026 | .006 | .039 | .770 | 3.464 |
| RP3 | .811 | .023 | .124 | .107 | .216 | .128 | .002 | .022 | .019 | .086 | .757 | 3.233 |
| RP4 | .781 | 025 | .189 | .188 | .208 | .089 | 012 | .048 | .007 | .150 | .758 | 3.778 |
| RP5 | .799 | .027 | .004 | .199 | .227 | .119 | .055 | 069 | 059 | .154 | .779 | 3.748 |
| RP6 | .819 | .021 | .153 | .189 | .119 | .090 | 022 | .005 | .071 | .060 | .763 | 3.456 |
| CN1 | .239 | .054 | .188 | .755 | .200 | .229 | .075 | .007 | .082 | 006 | .771 | 3.888 |
| CN2 | .201 | 058 | .158 | .765 | .197 | .239 | .066 | 030 | 016 | .118 | .769 | 3.761 |
| CN3 | .203 | 008 | .212 | .801 | .232 | .121 | 047 | .040 | .056 | .020 | .804 | 3.696 |
| CN4 | .143 | 044 | .134 | .758 | .190 | .282 | .033 | 111 | .027 | .123 | .760 | 3.268 |
| CN5 | .299 | 062 | .147 | .786 | .081 | .178 | .036 | 006 | .047 | .118 | .789 | 3.661 |
| IN1 | .143 | 049 | .171 | .262 | .068 | .853 | 008 | 021 | .028 | .116 | .867 | 5.487 |
| IN2 | .132 | 068 | .111 | .179 | .141 | .875 | .040 | 030 | 019 | .001 | .854 | 4.336 |
| IN3 | .112 | 094 | .096 | .239 | .100 | .877 | .020 | .009 | 026 | .107 | .880 | 5.778 |
| IN4 | .132 | 006 | .165 | .175 | .158 | .874 | 037 | .000 | 004 | .020 | .867 | 5.069 |
| EX2 | .331 | .081 | .381 | .177 | .391 | .167 | 069 | 045 | 012 | .671 | .930 | 9.838 |
| EX6 | .295 | .045 | .363 | .225 | .396 | .143 | 040 | 006 | .021 | .700 | .941 | 9.540 |
| EX7 | .319 | .040 | .415 | .224 | .359 | .158 | 036 | 017 | 011 | .671 | .932 | 9.557 |
| CE1 | .308 | .038 | .141 | .135 | .725 | .124 | 011 | .112 | .036 | .117 | .703 | 2.768 |
| CE2 | .196 | 091 | .191 | .156 | .723 | .150 | .075 | 017 | .087 | .185 | .700 | 2.760 |
| CE3 | .358 | .030 | .215 | .211 | .729 | .034 | .001 | .035 | 084 | 008 | .760 | 3.300 |
| CE4 | .256 | .021 | .234 | .170 | .755 | .085 | .095 | .029 | 005 | .124 | .753 | 3.508 |
| CE5 | .187 | 002 | .164 | .215 | .734 | .160 | 018 | .093 | 126 | .118 | .711 | 2.995 |
| SA1 | .141 | .018 | .837 | .082 | .122 | .101 | 009 | .112 | 004 | .068 | .769 | 2.925 |
| SA2 | .115 | .008 | .804 | .190 | .138 | .139 | 018 | .089 | .005 | .029 | .743 | 2.891 |
| SA3 | .229 | .024 | .749 | .137 | .182 | .142 | .111 | .041 | .134 | .147 | .739 | 3.568 |
| SA4 | .145 | 024 | .767 | .158 | .179 | .132 | .108 | .154 | 062 | .129 | .741 | 3.439 |
| SA5 | .129 | .009 | .797 | .172 | .217 | .059 | .158 | 043 | .049 | .130 | .778 | 3.451 |

Table 4

Internal Consistency

| Internal | Consistenc | ;y | | | | | |
|----------|------------|-----------|------------------|----|-----------|-----------|------------------|
| No | Construct | No. Items | Cronbach's Alpha | No | Construct | No. Items | Cronbach's Alpha |
| 1 | PV | 5 | 0.932 | 6 | CN | 5 | 0.921 |
| 2 | PA | 4 | 0.874 | 7 | IN | 4 | 0.945 |
| 3 | PP | 3 | 0.934 | 8 | EX | 3 | 0.969 |
| 4 | PS | 4 | 0.909 | 9 | CE | 5 | 0.894 |
| 5 | RP | 6 | 0.936 | 10 | SA | 5 | 0.910 |

Table 5

Cross Loading in Constructs

| CIOSS LOad | ung in Coi | istructs | | | | | | | | |
|------------|------------|----------|-------|------|-------|-------|-------|------|------|------|
| | PV | PA | PP | PS | RP | CN | IN | EX | CE | SA |
| PV | 0.92 | 0.50 | 0.67 | 0.54 | -0.01 | -0.06 | -0.12 | 0.04 | 0.01 | 0.04 |
| PA | 0.50 | 0.83 | 0.50 | 0.57 | 0.03 | -0.01 | -0.03 | 0.02 | 0.13 | 0.21 |
| PP | 0.67 | 0.50 | 0.94 | 0.67 | 0.11 | 0.13 | -0.01 | 0.04 | 0.02 | 0.14 |
| PS | 0.54 | 0.57 | 0.67 | 0.88 | 0.08 | 0.10 | 0.01 | 0.01 | 0.11 | 0.21 |
| RP | -0.01 | 0.03 | 0.11 | 0.08 | 0.92 | 0.55 | 0.35 | 0.60 | 0.64 | 0.45 |
| CN | -0.06 | -0.01 | 0.13 | 0.10 | 0.55 | 0.86 | 0.56 | 0.55 | 0.58 | 0.50 |
| IN | -0.12 | -0.03 | -0.01 | 0.01 | 0.35 | 0.56 | 0.91 | 0.42 | 0.39 | 0.38 |
| EX | 0.04 | 0.02 | 0.04 | 0.01 | 0.60 | 0.55 | 0.42 | 0.97 | 0.74 | 0.68 |
| CE | 0.01 | 0.13 | 0.02 | 0.11 | 0.64 | 0.58 | 0.39 | 0.74 | 0.84 | 0.57 |
| SA | 0.04 | 0.21 | 0.14 | 0.21 | 0.45 | 0.50 | 0.38 | 0.68 | 0.57 | 0.85 |
| DV | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

| Convergen | t and Dive | ergent Valio | lity | | | | | | | |
|-----------|------------|--------------|------|------|------|------|------|------|------|------|
| | PV | PA | PP | PS | RP | CN | IN | EX | CE | SA |
| No. | 5 | 4 | 3 | 4 | 6 | 5 | 4 | 7 | 5 | 5 |
| Cα | 0.93 | 0.87 | 0.93 | 0.91 | 0.94 | 0.92 | 0.95 | 0.97 | 0.89 | 0.91 |
| AVE | 0.85 | 0.69 | 0.89 | 0.78 | 0.84 | 0.74 | 0.82 | 0.94 | 0.70 | 0.72 |
| CR | 0.99 | 0.97 | 0.99 | 0.98 | 1.00 | 0.99 | 0.99 | 0.99 | 0.98 | 0.98 |
| CV | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| DV | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| SEM | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |



Fig. 8. Structural Model

Subsequently, the structural model was analysed using IBM SPSS AMOS. An analysis of the regression estimates for the structural model showed the following constructs (see Table 7) were significant except for PV and IN. Insignificant factors were dropped from the model to form a reduced model.

4.6 Reduced Model

The model fit for the full model suggests that the full model was not supported by the observed data and structural changes were necessary. The best way to do this was to evaluate the proposed model as well as a more plausible model. Hence, the researcher is free to conduct several different models until a good model is found. This allows the researcher to remove

3650

Table 6

weaknesses in the initial model and then present the revised model (Weston & Gore, 2006). The model was reduced by dropping the price value and the informed constructs. The reduced model showed a significantly better fit. The reduced model also suggests that the model could not be improved further. The reduced model is shown in Fig. 9.

| Table 7 | |
|-----------|--------|
| Estimates | of SEM |

| Estimates of SEM | | | | | | | | |
|------------------|--------------|----|----------|----------------|----------------|---------|-----------------|--|
| Relationship | | | Estimate | Standard Error | Critical Ratio | P-Value | Decision | |
| PS | \leftarrow | PV | 0.063 | 0.07 | 0.96 | 0.34 | Not Significant | |
| PS | \leftarrow | PA | 0.338 | 0.09 | 3.99 | 0.00 | Significant | |
| PS | \leftarrow | PP | 0.376 | 0.07 | 5.72 | 0.00 | Significant | |
| CE | ← | RP | 0.262 | 0.06 | 4.17 | 0.00 | Significant | |
| CE | \leftarrow | CN | 0.201 | 0.08 | 2.38 | 0.02 | Significant | |
| CE | \leftarrow | IN | 0.010 | 0.05 | 0.20 | 0.84 | Not Significant | |
| CE | \leftarrow | EX | 0.409 | 0.06 | 7.47 | 0.00 | Significant | |
| SA | ← | PS | 0.121 | 0.05 | 2.70 | 0.01 | Significant | |
| SA | ← | CE | 0.449 | 0.05 | 9.58 | 0.00 | Significant | |



Fig. 9. Reduced Causal Model

Fig.10. Model Fit Indices - Saturation

An analysis of the regression estimates for the reduced structural model shows that all constructs were significant (Table 8).

Table 8

Estimates of SEM for Reduced Model

| Relationship | | |) | Estimate | Standard Error | Critical Ratio | P-Value | Decision |
|--------------|----|---|----|----------|----------------|----------------|---------|-------------|
| | PS | ← | PA | 0.356 | 0.08 | 4.28 | 0.00 | Significant |
| | CE | ← | RP | 0.306 | 0.09 | 3.60 | 0.00 | Significant |
| | CE | ← | CN | 0.210 | 0.08 | 2.72 | 0.01 | Significant |
| | CE | ← | EX | 0.366 | 0.05 | 7.09 | 0.00 | Significant |
| | PS | ← | PP | 0.405 | 0.06 | 7.31 | 0.00 | Significant |
| | SA | ← | PS | 0.123 | 0.05 | 2.48 | 0.01 | Significant |
| | SA | ← | CE | 0.450 | 0.05 | 8.33 | 0.00 | Significant |

Table 9 shows the model fit data for the full model and the reduced model for ease of comparison. Note that there is a significant improvement of fit in the reduced model. All except AGFI meet the criteria. The reduced model also shows a saturation of the indices in Fig. 10, so that the model could not be improved further.

Table 9

Comparison of Model Fit Indices: Full and Reduced Model

| | Threshold | Full Model | Test | Reduced Model | Test |
|-----------|-----------|------------|------|---------------|------|
| CMIN/DF < | 5.00 | 0.039 | Pass | 0.037 | Pass |
| RMSEA < | 0.08 | 0.415 | Fail | 0.050 | Pass |
| RMR < | 0.05 | 0.820 | Pass | 0.853 | Pass |
| GFI > | 0.80 | 0.796 | Fail | 0.830 | Pass |
| AGFI > | 0.80 | 0.723 | Fail | 0.735 | Fail |
| PGFI > | 0.80 | 0.867 | Pass | 0.893 | Pass |
| NFI > | 0.80 | 0.855 | Pass | 0.883 | Pass |
| RFI > | 0.80 | 0.964 | Pass | 0.975 | Pass |
| IFI > | 0.80 | 0.960 | Pass | 0.972 | Pass |
| TLI > | 0.80 | 0.963 | Pass | 0.974 | Pass |
| CFI > | 0.80 | 0.923 | Pass | 0.913 | Pass |
| PRATIO > | 0.80 | 0.800 | Fail | 0.815 | Pass |
| PNFI > | 0.80 | 0.889 | Pass | 0.889 | Pass |

5. Discussion

Price Value (H1) is not supported. This would imply that prices do not reinforce the quality image and prices increases are not value for money as they do not emphasize the cost savings. Although prices are consistent among construction companies' customers are not prepared to pay more than the competition.

Price Advantage (H2) is supported. This would imply that prices not only affect the customer's attitude and buying decisions but also adversely deviate the choice to other competitors. Hence, it is essential that prices are reflective of the price sensitivity in the market and differentiate the product from that of the competition.

Price Penetration (H3) is supported. This would imply that price messages are consistent with the rest of the marketing mix and take into consideration the different lifestyles and the associated price perceptions supporting the price image of the product.

Pricing Strategy (H4) is supported. This would imply that appropriate pricing enables construction companies to achieve high market share and customer loyalty. Hence, they can expand their market share with low price and high-volume sales through price reductions without getting into price wars.

Reputation (H5) is supported. This shows that customers need to see a good reputation of the construction company in the marketplace. Customers do not choose the construction company on price alone but by the representation of their own brand. Customers perceive that the offer of company they have chosen has the best quality and is superior to the competition. Being a customer of a reputable company also gives the customer a social prestige.

Confidence (H6) is supported. Customers choose companies they are confident have construction expertise. Customers are more confident of companies that give independent advice on which product or service best suits the customer. Customers also feel more informal when they deal with the same procedures and people in the construction company.

Informed (H7) is not supported. This suggests that the customer does not consider it necessary to keep the customer updated during the construction process. This is likely due to the strength of the client relationship in other ways, presumably the reputation and confidence of the customer with the construction company.

Expertise (H8) is supported. Expertise is an important aspect identified in this study. The customer believes that the staff they deal with at the construction company have good people skills to deliver good customer service. Often the customer builds a personal relationship with the staff at these companies. This enables the staff to focus on offering 'specialized' services to customers. Thus, the construction company facilities have to be better designed to fulfil the customer's needs better than their competitors. The facilities must include online and offline facilities designed to be efficient.

Customer Experience (H9) is supported. Customers loyalty was enhanced when construction companies not only recognized the customer but also the company knew exactly what the customer wanted. Construction companies need to reassure their customers that their needs would be looked after whenever their service was needed. Past experiences of how the customer was dealt with certainly builds the relationship. Together, these aspects give a real sense of customer satisfaction.

5.1 Theoretical Contribution and Implications

This research resulted in two major contributions. First, the construction industry benefits from an overview of what variables, within the pricing strategy, are essential to successful business. This improves the customer-supplier relationship to enable suppliers to enhance customer service policies to boost their profitability, locally and globally. Second, customers benefit from being able to express their expectations to the management of construction companies via the questionnaire responses and the statistical findings. The two contributions together implicate that customers themselves can expect a definitive improvement of the customer experience leading to greater customer satisfaction.

5.2 Implications for Practice

For the construction companies, the implications for practice is clear in two ways. Firstly, the customer services within the construction companies can identify what aspects of the pricing strategy are perceived as significant to customer experience. Based on aspects identified, significant aspects and empirical findings of the study need to be highlighted to senior management as an awareness program. Senior management can then use the findings and compare the findings to existing notions of what is "significant" to the customer's experience. This will serve as a benchmark to rectify any misconceptions of the importance of the pricing strategy. Senior management can then align the organization as to what aspects of the pricing strategy is "significant" to the company and how this relates to the customer experience. Hence, changes to the staff misconceptions can be stipulated and programs to enhance staff orientation to customer experience can be put in place.

Secondly, the company must identify gaps in the elements of the pricing strategy between those of the company and those expressly identified in the findings of the study. This can be done as a two-phase program. The company's perception needs to be compared against the empirical findings of the study for each of the construct and its relevant questionnaire item. This would provide an observable difference of the service delivered and the service perceived by the customer. Where the difference is admittedly high, the company could identify corrective actions to reduce the service delivery gap. This will develop the quality image of their products and emphasize the potential cost savings compared to their competitors.

3652

5.3 Limitations and Future Research Directions

The limitations in this research was mainly related to the sample size for data collection. Although 300 respondents were targeted, only 213 respondents were available. Three of these results were later discarded due to incorrect answers. This reduced the actual sample size to 210 which was marginally less than the 213 required by Cochrane's formula. Future research could target a much larger sample size.

Another aspect of future research could include the reduction in the number of questionnaire items. During the data collection phase, it was notable that respondents were somewhat exhausted to answer all 48 questionnaire items. Although adequate questionnaire reliability and validity tests were conducted, there was no explicit intent to discard highly correlated questionnaire items. Future research could devise a method to eliminate highly correlated questionnaire items.

6. Conclusions

This study was an empirical study on the effect of the marketing mix, particularly the price element, on the customer experience in construction companies. Structural Equation Modelling was used together with Exploratory Factor Analysis and Confirmatory Factor Analysis to assess a structural model. This modelling method identified factors that were important to understand how customer satisfaction could be achieved through a good pricing strategy and exceptional customer experience. the study also indicated that price value and price advantage are perceived as important pricing strategy that is vital to customer satisfaction. Construction companies should be mindful of these aspects which are perceived to be important to the customer. Similarly, construction companies must forge a close customer experience with the customer. This can be done through building a reputation, confidence and expertise which the customer perceives to be important. Therefore, both pricing strategy and the customer experience with the customer are vital to building customer satisfaction. Construction companies should incorporate customer experience into their company culture as part of their commitment to stay ahead of competition while delivering customer satisfaction.

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