ANTECEDENTS OF RELATIONSHIP MARKETING IN A BUSINESS-TO-BUSINESS CONCRETE PRODUCT ENVIRONMENT

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—Abstract—

The emergence of relationship marketing as a strategic imperative, has affirmed the assertion that building close relationships between business-to-business (B2B) partners, is paramount in modern day’s competitive environment. However, the actual application of robust relationship marketing strategies evades most organisations since the value of relationship marketing is often underrated. A non-probability convenience sampling technique was adopted and data were gathered using self-administered structured questionnaires among B2B concrete construction customers (n=560) in Gauteng province. Statistical techniques employed in the study include exploratory factor analysis, correlations and regression analysis. The study confirmed the reliability and validity of the measuring instrument. Through multiple regression analysis, the results show that flexibility, information sharing, involvement and fear of relationship loss are significant predictors of B2B relationship quality. Moreover, relationship quality seems to strongly predict B2B civil and building contractors’ relationship commitment towards their relationship with CPMs. The study contributes to the literature by developing a framework of relationship intention measures, relationship quality and commitment in a South African B2B construction industry setting. Offering astute overall relationship quality and increased relationship commitment levels to customers who exhibit high relationship intentions could provide the requisite impetus to concrete product manufacturer-supplier’s’ competitive advantage

Key Words: Relationship intentions, Concrete product, Relationship quality, Relationship commitment, Business-to-business.
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1. INTRODUCTION

The concrete product market (CPM) is supported by civil and building engineering projects, mainly driven by infrastructure developments, exacerbated given aggravation by government spending and guarantees (Pillay & Mafini 2017; Sebone & Barry 2009). The bulk of infrastructure developments are performed by specialist industry role players, which includes concrete product material suppliers as well as civil and building engineering contractors (Benton & McHenry 2010). Moreover, successful rollout of infrastructure developments largely depends on the proper functioning of the construction materials supply segment (Bbenkele & Madikiza 2016). Concrete product supply business is responsible for transforming the socio-economic essentials of societies by creating an improved quality of life and as such, it can be the backbone of a prosperous economy by providing employment (Arantes, Ferreira, Costa & Wagner 2015; Ibrahim, Roy, Ahmed & Imtiaz 2010). This is hardly the prevailing situation in the South African construction industry, which is dominated by adversarial relationships between venture stakeholders skewed towards a few large organisations (Benton & McHenry 2010). The actual application of robust relationship marketing strategies evades most organisations since the value of relationship marketing is often underrated (Gummerus, Von Koskull & Kowalkowski 2013). Mba and Agumba (2017) report that 40 to 70 percent of these confrontational relationships are found in the form of joint venture arrangements, which tend to fail due to reasons such as relationship quality and poor communication amongst the partners.

The extensive consideration given to relationship-marketing intentions is highlighted by concerns around the need to build sustainable competitive advantage in a gradually progressive globalised marketplace. As deliberations on relationship-marketing intentions carry on maturing, there are imperative concerns yet to be clarified, one of which relates to relationship quality in relation to the antecedents and outcomes of relationship intentions. Moreover, it is worth stating that long-term customer relationships depend on the degree of overall relationship quality offered by their suppliers (Liu, Guo & Lee 2011). Čater and Čater (2010) state that customer perceptions of the relationship quality offered by their suppliers and the degree of commitment to the relationship influences their loyalty. When customer perceptions of their supplier’s relationship quality and commitment levels are high, the degree of customer satisfaction and loyalty will be enhanced (Lin 2013; Butcher & Sheehan 2010; Morgan & Hunt 1994).
Therefore, it is pivotal that organisations should improve their relationship quality and relationship commitment heights in lieu of customers’ satisfaction, to increase and maintain their continued support (Zietsman 2017). The objective of the study is to ascertain civil and building contractors’ (customers) antecedents of relationship intention as concrete product users, which leads to CPMs improved relationship quality and relationship commitment levels in a business-to-business (B2B) context, within the South African construction industry.

2. LITERATURE REVIEW AND HYPOTHESES FORMULATION

This section provides information relating to the hypothesis formulation through a condensed literature review of the constructs under investigation.

2.1 Relationship intentions and relationship quality.

The current study proposes a four-measure framework of relationship intentions, namely involvement, flexibility, information sharing/exchange and fear of relationship loss, to be tested in the concrete product environment within the construction industry in a B2B context. Of note is the view that the driving force of relationship marketing is the focus on developing long-lasting customer-supplier associations, wherein the relationship quality is a crucial feature of strong and sustainable connections (Tripathi & Dave 2013). Thus, relationship quality plays a crucial part in the examination of relationships that exist amongst customers and their supplier organisation (Balla, Ibrahim & Ali 2015).

2.1.1 Flexibility

Flexibility refers to the competence of an organisation to adapt to the changing market environment (Arias-Aranda, Bustinza & Barrales-Molina 2011). Relatedly, Fernie, Sparks and Mckinnon (2010) support arguments given by earlier studies highlighting the dynamic position that flexible arrangements by organisations play in long-term relational exchanges. Therefore, being flexible is a vital operative capability that organisations could use to improve their performance and gain competitive advantage (Huo, Gu & Wang 2019). Furthermore, a great deal of sustenance is found from the literature regarding the notion that the flexibility construct is a vital determinant of successful B2B relationship marketing used in many relational interaction studies (Rajamma, Zolfagharian & Pelton 2011),

H1 Flexibility significantly and positively influences relationship quality
2.1.2 Involvement

Customer involvement is the extent to which customers, without being pressured, participate in a relational exchange with a particular supplier organisation (Kumar et al. 2003). Tuu and Olsen (2010) assert that customer involvement facilitates relationship building, as customers get highly involved with their relationship activities. Delport, Steyn and Mostert (2011) assert that if customers exhibit relationship intentions to get involved with the organisation, it suggests that they may be interested to participate in long-term relational exchanges. This happens when a customer tends to place superior value on the organisation and its offerings, compared to a less attached customer (Camra-Fierro, Melero-Polo & Sese 2014). In addition, highly involved customers embrace more accurate expectations of their organisation than to others (Steyn, Mostert & de Jager 2008). Thus, it is advisable for organisations to involve their customers in their business activities to gain their confidence and boost their relationship quality by being involved with them.

H2 Involvement significantly and positively influences relationship quality

2.1.3 Information sharing

Information sharing refers to the degree to which an organisation willingly shares important details to their relational partner (Shou, Yang, Zhang & Su 2012). Hsu, Kannan, Tan and Leong (2008) state that information sharing is considered as an effective contributor to the improvement of relationships quality through efficient coordination of the partners’ information systems. The effectiveness of the relationship becomes seeming when prompt responses to issues are promptly shared (Johnson & Ross 2014). This, according to Ashley, Noble, Donthu & Lemon (2011), advances the relational partner’s eagerness to exchange information that permits both to acquire information that they initially did not have at their disposal. Hence, mutual reliance impacts information sharing activities, non-opportunistic performances and the development of a continuing quality relationship between the relational partners (Chen, Wu & Chien 2016).

H3 Information sharing significantly and positively influences relationship quality

2.1.4 Fear of relationship loss

The perceived switching costs incurred by an exchange partner for terminating the relationship can be devoted to fear of relationship loss, which could discourage customers from converting to alternatives (Caruana 2002). Kumar et al. (2003)
mention that a customer who has high relationship intentions tend to be very concerned with the repercussions of losing their supplier and the benefits they would lose by terminating their relationship. The relational bond that organisations enjoy with their customers, also forms switching obstacles paralleled to the costs and benefits of ending their association (Spake & Megehee 2010). Kumar et al. (2003) affirm that customers that are fearful of losing their relational benefits, also shows higher intentions to form and maintain long-lasting quality relationships.

H4 Fear of relationship loss significantly and positively influences relationship quality

2.2 Relationship quality and relationship commitment
The extant literature describes relationship quality as a composite measure of the intensity of relationship and a multi-dimensional structure reflected by commitment and satisfaction concepts considered critical for driving business performance (Lin 2013). Commitment, on the other hand, is an ongoing relationship or desire to implicitly or explicitly pledge to remain in an exchange relationship that proves to be of value (Saleh & Akhavanfar 2015), thus, this study views commitment as “an exchange partner believing that an on-going relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship quality endures indefinitely” (Morgan & Hunt 1994). Consequently, relationship quality can be acknowledged as a precursor of relationship permanency as stated by Lai, Bao and Li (2008) and play a critical role in long-lasting business relationship commitment (Segarra-Moliner, Moliner-Tena & Sánchez-Garcia 2013).

H5 Relationship quality significantly and positively influences relationship commitment.

3. RESEARCH DESIGN AND METHODOLOGY
3.1 Research design
A quantitative research design was adopted, based on its high degree of flexibility and its ability to facilitate the possible replication of the research procedure particularly ensuring both the validity as well as the reliability of the research results (Kumar 2014).

3.2 Sample and data collection method
The target population of this study consisted of civil and building construction organisations, affiliated with Construction Industry Development Board (CIDB)
operating within Gauteng province, due to its prominence as an economic hub of the country. To the exclusion of the pilot-test sample, the researchers were able to identify the target segment through a systematic random sampling method over a period of ten weeks (during the months of September 2018 and January 2019). The questionnaires were hand delivered to the study participants who voluntarily completed it. However, in most cases, the questionnaires were administered face-to-face by 10 trained sales executives recruited from a total of three major manufacturers and suppliers of cement products to ensure that they were properly completed. Participants were given sufficient time to complete the questionnaire and were assured of anonymity. Although a total of 600 respondents were selected for this study to be able to take a broad view of the outcomes to the total population, only 560 valid responses (approximately 93% response rate) were retrieved for final data analysis.

3.3 Measuring instrument

The research instrument used in the study consisted of a five-point Likert-type scale derived from previous studies. In particular, relationship intentions scale items were adapted from Kumar et al. (2003), Zhang, Vonderembse and Lim (2003) as well as Hsu, Kannan, Tan and Leong (2008) respectively. Relationship quality was measured using the scales of Lamb, Hair, McDaniel, Faria and Wellington (2012) and Ndubisi (2007). Similarly, relationship commitment scale items were adapted from Dagger et al. (2011) and Morgan and Hunt (1994).

3.4 Statistical analysis

The Statistical Package for the Social Sciences (SPSS version 25.0) was used as the principal data analysis tool. Descriptive statistics were utilised in the analysis of the demographic profile of respondents. Correlations between the constructs under investigation were assessed using Spearman’s non-parametric r coefficient. Prediction and significance between dependant and independent constructs were assessed using multiple regression analysis.

4. RESULTS

4.1 Sample composition

An analysis of the demographic profile of respondents shows that the majority of the respondents were procurement managers (n=205; 36.6%), followed by site managers (n=125; 22.3%), quantity surveyors (n=75; 13.4%), construction project managers (n=71; 12.7%), managing directors (n=67; 12%) and others (n=17; 3%). In addition, most of the respondents (n=196; 35%) have been supporting their
preferred CPM for a period of one year or longer, followed by those who supported their CPM for less than a period of one year (n=120; 21.4%) and n=96 (17.1%) of respondents who supported the CPM for three years or longer, but less than five years. Furthermore, n=88 (15.7%) of the respondents supported their CPM for five years or longer but less than seven years and 60 (10.8%) respondents supported their CPM for less than three years.

4.2 Reliability and validity

Content validity was ascertained through a thorough literature review and pilot testing of the measuring instrument prior to the main survey with 41 marketing academics who did not form part of the main survey, which is consistent with Malhotra’s (2010) recommendation. The pilot study facilitated further modification of the questionnaire to ensure that all questions were clear and accurately captured the required information. All the AVE estimates in Table 1 are higher than the threshold of 0.50 and thus indicate sufficient accuracy in contributing to convergent validity for the various construct measures as suggested by Pallant (2010). Moreover, none of the shared variances exceeded the AVE values (Table 3) and discriminant validity was duly confirmed (Malhotra 2010). The results of the study show that all independent constructs were statistically significant, which portrays the presence of satisfactory predictive validity in the study. Table 1 shows that both the Cronbach alpha and CR values for each construct met the recommended threshold value of >0.70 and therefore considered sufficient to conclude internal consistency of the proposed dimensions (Nunnally & Bernstein 1994).

Table 1 Psychometric properties of the measuring scales

<table>
<thead>
<tr>
<th>Research construct</th>
<th>Cronbach’s test</th>
<th>CR</th>
<th>AVE</th>
<th>Shared variance</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement (INV)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INV₁</td>
<td>.696</td>
<td></td>
<td></td>
<td></td>
<td>.792</td>
</tr>
<tr>
<td>INV₂</td>
<td>.758</td>
<td></td>
<td>.84</td>
<td>.64</td>
<td>.869</td>
</tr>
<tr>
<td>INV₃</td>
<td>.667</td>
<td>.84</td>
<td>.64</td>
<td>.50</td>
<td>.740</td>
</tr>
<tr>
<td>INV₄</td>
<td>.588</td>
<td></td>
<td>.84</td>
<td></td>
<td>.663</td>
</tr>
<tr>
<td>Flexibility (FLEX)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLE₁</td>
<td>.695</td>
<td></td>
<td></td>
<td></td>
<td>.694</td>
</tr>
<tr>
<td>FLE₂</td>
<td>.780</td>
<td></td>
<td>.94</td>
<td>.68</td>
<td>.851</td>
</tr>
<tr>
<td>FLE₃</td>
<td>.742</td>
<td>.94</td>
<td>.68</td>
<td>.30</td>
<td>.732</td>
</tr>
<tr>
<td>FLE₄</td>
<td>.819</td>
<td></td>
<td>.94</td>
<td></td>
<td>.834</td>
</tr>
<tr>
<td>FLE₅</td>
<td>.853</td>
<td></td>
<td>.94</td>
<td></td>
<td>.917</td>
</tr>
<tr>
<td>FLE₆</td>
<td>.820</td>
<td></td>
<td>.94</td>
<td></td>
<td>.871</td>
</tr>
<tr>
<td>FLE₇</td>
<td>.802</td>
<td></td>
<td>.94</td>
<td></td>
<td>.869</td>
</tr>
</tbody>
</table>
### 4.3 Exploratory factor analysis.

In order to ascertain the factor structure of the scales used in the study, the exploratory factor analysis procedure using principal components analysis (CPA) was applied (Field 2013). In the procedure, four factors were extracted from the relationship intentions construct using eigen values and the percentage of variance accounted for methods. These four factors were labelled as flexibility, involvement, information sharing and fear of relationship loss. Furthermore, both relationship quality and relationship commitment scales were unidimensional.

### 4.4 Correlation analysis and descriptive statistics

The linear association between the four relationship intentions factors, relationship quality and commitment was measured using the Spearman correlation coefficient (r). The results of the correlation analysis are reported in Table 2.
Table 2: Correlation Analysis, Standard Deviation and Mean Scores

<table>
<thead>
<tr>
<th>Construct</th>
<th>FLEX</th>
<th>IS</th>
<th>INV</th>
<th>FOR</th>
<th>RQ</th>
<th>COM</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLEX</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.88</td>
<td>0.895</td>
</tr>
<tr>
<td>IS</td>
<td>.131</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.64</td>
<td>1.024</td>
</tr>
<tr>
<td>INV</td>
<td>.034</td>
<td>.015</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3.79</td>
<td>0.940</td>
</tr>
<tr>
<td>FOR</td>
<td>.178</td>
<td>.120</td>
<td>.138</td>
<td>1</td>
<td></td>
<td></td>
<td>3.27</td>
<td>1.261</td>
</tr>
<tr>
<td>RQ</td>
<td>.190</td>
<td>.013</td>
<td>.554*</td>
<td>.215</td>
<td>1</td>
<td></td>
<td>3.77</td>
<td>0.919</td>
</tr>
<tr>
<td>COM</td>
<td>.188</td>
<td>.034</td>
<td>.424*</td>
<td>.180</td>
<td>.705*</td>
<td>1</td>
<td>3.95</td>
<td>0.830</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).**

FLEX = Flexibility; IS = Information sharing/exchange; INV = Involvement; FOR = Fear of relationship loss; RQ = Relationship quality; COM = Relationship Commitment

The correlation results in Table 2 show that the study constructs are positively interrelated with each other. With respect to descriptive statistics, Table 2 indicates that all the mean scores returned for all the constructs were all above the score of three on the Likert scale, suggesting that the respondents recognise the significance of these constructs within the B2B concrete product environment. In addition, the relatively low standard deviations that are also very similar across the constructs relative to the means, gives a reliable indication of the responses.

4.5 Regression analysis

Multi-collinearity was assessed by inspecting the tolerance value (Tol) (>0.1) and the variance inflation factor (VIF) (<10) for each construct. As shown in Tables 3 and 4, all the independent variables had VIF values of <10 and tolerance value of >0.10, thus dispelling any multi-collinearity threat (Malhotra 2010). Regression analysis was performed and the results are recorded in Tables 3 and 4 respectively.
Table 3: Regression Model 1

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Standardised Beta</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tol.</td>
</tr>
<tr>
<td>Flexibility (H1)</td>
<td>.239</td>
<td>6.152</td>
<td>.000</td>
<td>.452</td>
</tr>
<tr>
<td>Involvement (H2)</td>
<td>.149</td>
<td>5.005</td>
<td>.000</td>
<td>.484</td>
</tr>
<tr>
<td>Information sharing (H3)</td>
<td>.198</td>
<td>5.589</td>
<td>.000</td>
<td>.461</td>
</tr>
<tr>
<td>Fear for relationship loss(H4)</td>
<td>.437</td>
<td>12.49</td>
<td>.000</td>
<td>.429</td>
</tr>
</tbody>
</table>

R = 0.739 R² = 0.547 Adjusted R² = 0.543 F change 167.348 **sig at <0.05.
Tol. = tolerance value, VIF = variance inflation factor

The regression model 1 (Table 3) reports that the four factors of relationship intentions, (adjusted R² = 0.543) explained approximately 54 percent of the variance in relationship quality.

Table 4 Regression Model 2

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Standardised Beta</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tol.</td>
</tr>
<tr>
<td>Relationship Quality (H5)</td>
<td>.705</td>
<td>23.47</td>
<td>.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

R = 0.705 R² = 0.497 Adjusted R² = 0.496 F change 550.88 **sig at <0.05.
Tol. = tolerance value, VIF = variance inflation factor

The regression model 2 (Table 4) reports that relationship quality, (adjusted R² = 0.496) explained approximately 50 percent of the variance in relationship commitment.

5. DISCUSSION

Consistent with Hypothesis 1 (H1), results computed and shown in Table 3 (β = .239; t = 6.152; p < 0.001) and Table 2 (r = 0.551, p < 0.01), indicate that there is a significant positive relationship between flexibility and relationship quality. This finding corroborates results obtained by Fernie, Sparks and McKinnon (2010) which revealed that flexible arrangements play a vital role in longstanding relationships. Hypothesis 2 postulated a positive relationship between involvement and relationship quality. The standard coefficients shown in Table 3 (β = .149; t = 5.005; p < 0.001) confirmed the hypothesis. The weak relationship displayed in Table 2 (r = 0.190, p < 0.01), suggest the existence of a gap between customers’ and CPM’s willingness to involve each other in their business endeavours. As can be seen from Table 3, the results computed (β = .198; t = 5.589; p < 0.001) and the strong association (r = 0.554, p < 0.01) shown in Table
2 provide evidence to support the third hypothesis. Chen, Wu and Chien (2016), echo that effective information sharing and non-opportunistic behaviour can be promoted only if the relational partners have confidence on each other as they share common concerns about the well-being of their relationship. Hypothesis 4 postulated a positive relationship between fear of relationship loss and relationship quality. The standard coefficients shown in Table 3 ($\beta = .437; t = 12.49; p < 0.001$) and the strong association shown in Table 2 ($r = .642, p < 0.01$) supports H4 and thus provided an affirmative response. This outcome concurs with findings from a study undertaken by Gwinner, Gremler and Bitner (1998), As can be seen from Table 4, the results computed ($\beta = .705; t = 23.47; p < 0.001$) and the strong relationship ($r = .705, p < 0.01$) reported in Table 2 provide support to the fifth hypothesis. This result also supports findings from other studies, which advocate that feelings of affective attachment and sense of responsibility to the relationship are not autonomous of one another (González & Guillén 2008; Meyer & Allen 1997).

6. LIMITATIONS AND FURTHER RESEARCH

This study was conducted over a certain period as a snapshot reliant on conditions appearing during that time. With the current slump of the building and civil industry, perceptions and attitudes of customers and CPMs may be different when compared to a period of recovery. Considering that data collection took place during September 2018 and February 2019, which is a period of slow activity in this industry, rampant construction activity is usually seen after provincial and local budget approvals by government during the months of June and July of each year. Future studies might consider extending their examinations across diverse categories of CIDB grades (characterised by different product categories) in order to provide a better understanding of the applicability of customers’ relationship intentions in dissimilar B2B environments. Therefore, future research can try to involve other construction material suppliers and while doing so, use their customer databases as a basis for mixed method research approach to broaden the understanding of the influence of relationship intention in the relationship marketing discipline.

7. CONCLUSION AND RECOMMENDATIONS

The findings of this study provide support for a four-factor structure (expectations, involvement, flexibility, information sharing and fear of relationship loss) that explain the antecedents of relationship intentions. Moreover, relationship quality seems to strongly predict B2B contractors’ relationship commitment. Therefore, it is recommended that CPMs must put
emphasis on regular information sharing with their customers. Also by being flexible in dealing with their customer’s varying needs, will put them in a good position to secure long lasting customer support as customers could be wary of losing the relational benefits derived from their relationship with their suppliers. Against the background of the current unpredictable and very competitive market environment, it is recommended that CPMs should be wary of the veracity of commitment by introducing social responsibility programmes, product development and innovations as value attributes that are commonly perceived as benefits and means of displaying supplier commitment. Of note is the view that CPMs who use the value chain by ensuring persuasive on-time order achievement and flexibility in decision-making and transportation of goods will accomplish a positive customer encounter in a form of astute relationship quality resulting in relationship commitment. Offering astute overall relationship quality and increased relationship commitment levels to customers who exhibit high relationship intentions could provide the requisite impetus to concrete product manufacturer-supplier’s’ competitive advantage.

8. REFERENCES


