BUSINESS-TO-BUSINESS FRAMEWORK OF RELATIONSHIP MARKETING IN THE SOUTH AFRICAN CEMENT MANUFACTURING INDUSTRY

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ABSTRACT

The focus of the study was relationship marketing (RM) in the context of business-to-business in the cement manufacturing industry in South Africa. The study’s literature reveals that there is limited published research in the cement industry, particularly in South Africa, which deals with dimensions of RM. There is evidence from the literature that RM is important for building long-term relationships with customers and contributes to organisational profitability. The main objective of the study was to develop a framework of dimensions of RM in the South African cement industry.

Data were collected from 362 major cement customers throughout South Africa’s nine provinces using the face-to-face interview technique with self-administered questionnaires. The data collected in the empirical study were analysed using the structural equations modelling (SEM). A framework of RM dimensions for the cement industry in South Africa was developed. The empirical results of this study suggested that in order to maintain customer satisfaction, a cement supplier has to invest in ways of enhancing customer trust and communication. One contribution of this study is its examination of the sequential logic of RM constructs in business-to-business in the cement industry.

Keywords: Relationship Marketing, South African Cement Manufacturing Industry, Supplier Competencies, Trust, Commitment, Communication, Satisfaction, Cooperation, Loyalty.

INTRODUCTION

According to Svensson et al. (2010:1), win-win working relationships between buyers and suppliers in business markets are becoming more and more vital to achieving business success. This view is supported by Anderson and Narus (1990), Morgan and Hunt (1994) who advocate that strong relationships in business-to-business markets ensure stability to both suppliers and buyers. According to the literature, the three most studied dimensions of relationship marketing (RM) are trust, commitment and satisfaction (Morgan and Hunt, 1994; Palmate, Dant, Grewel and Evans, 2006 and Barry, Dion and Johnson, 2008). The challenge is to find commonality of dimensions for a specific industry/sector (Mbango, 2015).

Evidence from the literature seems to point towards a lack of specific constructs of RM in business-to-business markets within specific industries (Mbango and Phiri, 2015:80). Trust and commitment are perceived as the most important constructs of RM (Morgan and Hunt, 1994; Barry et al., 2008). Studies on business-to-business interactions identify a variety of dimensions in the development of market relationships. However, difficulties arise from a lack of consensus in critical business-to-business market literature, particularly the manufacturing industry. While researchers have developed several conceptual frameworks on business-to-business relationship structures, none has focused on the cement manufacturing industry in South Africa.
According to Ulaga and Eggert (2004:312), “established models on relationship marketing might insufficiently address the cement industry in South Africa”. The choice of this study is motivated by the research outcomes on RM by amongst others, Theron and Terblanche (2010), Athanasopoulou (2009), Gilaninia et al. (2011), Gounaris (2005), Ulaga and Eggert (2004). As outlined above, these authors argue that despite the existence of RM as initially described by Berry (1983) no agreement exists on uniform dimensions or variables, which constitute RM management. Furthermore, studies on RM in specific industries are limited, particularly for developing countries.

**RESEARCH OBJECTIVES**

- To develop a framework of RM dimensions from a business-to-business perspective for the management of RM in the South African cement manufacturing industry.
- To identify the dimensions of RM from a business-to-business perspective.
- To recommend specific RM dimensions, which address gaps in cement industry marketing and which can be used as a guideline for future business-to-business marketing activities?

**LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

**Supplier Competency**

In the cement industry, supplier competency is considered crucial to strengthen the relationship between supplier and buyer. Hunt and Morgan (2006:79) argue that competencies are essential in enabling firms to use resources efficiently and/or effectively and as a result, competencies are sources of competitive advantage. This is possible since competency is tacit, complex and organisation-specific, rendering it difficult to imitate.

According to Goffin et al. (2006:204), supplier competencies include recognised factors such as quality, price, delivery performance, flexibility, joint problem solving, special product capability and new product development. If these conditions are fulfilled, a positive relationship can be established. In addition, the ability of the supplier to provide specialised training programs on product use, deploy tailor-made promotional campaigns and purchase dedicated tools and machinery could result in enhanced relationship outcomes in terms of effectiveness and efficiency (Skarmeas and Robson 2008).

As the cement industry and its products are of a technical nature, providing such services distinguishes an organisation from competitors and is assured to enhance the relationship between supplier and buyer. On the basis of this discussion, the initial study hypothesis is developed as:

\[ H1 \quad \text{Supplier competencies have a positive influence on customer satisfaction} \]

**Trust**

Morgan and Hunt (1994:23) state, “One of the critical constructs in facilitating exchange relationships between partners therefore pivotal for understanding of business relationships is trust”. Papassapa and Miller (2007:3) and Wilson (1995:337) support this and state that the nature and understanding of trust and its importance, constitutes a major impact on the development and management of business-to-business relationships. The degree of trust that develops between
companies has been described as a fundamental building block of relationships and a critical
economic exchange. In light of the above, this study accepts the opinion of Svensson et al.
(2010:3), “as the manufacturer evaluates the various aspects of a business relationship, various
components of trust will most likely be used in the evaluation including the trust component of
credibility, fairness and honesty, therefore suggesting that trust is a precursor to satisfaction”. Therefore, the second hypothesis is developed as:

\[ H2 \quad \text{Trust has a positive influence on customer satisfaction} \]

Commitment

Papassapa et al. (2007:3) see the concept of commitment as stemming from industrial and
organisational psychology and regard it as an intention to endure a course of action or activity
such as maintaining a relationship with a business partner. Morgan and Hunt (1994:23) propose
that relationship commitment is fundamental to RM and is seen as essential in the literature of
organisational and buyer behaviour. It is one of the most vital variables for understanding the
strength of a marketing relationship and is a valuable construct for measuring the likelihood of
customer loyalty and satisfaction as well as for foreseeing future purchase frequency. Anderson
et al. (1987), Jackson (1985), Dwyer et al. (1987) and Anderson and Weitz (1990) support this
view.

Therefore, in concurrence with Farrelly and Quester (2005:212), “a relationship
atmosphere where both parties believe they can achieve goals without opportunism should show
evidence of a high level of commitment which in turn should show higher levels of satisfaction
with the relationship”.

The third hypothesis is formulated as:

\[ H3 \quad \text{Commitment has a positive influence on customer satisfaction} \]

Communication

Anderson and Narus (1990:44) define communication as “the formal as well as informal
sharing of meaningful and timely information between firms”. This definition is supported by
Gilaninia et al. (2011:795), who state, “communication refers to the ability to provide timely and
trustworthy information”, which is adopted for this study. Gilaninia et al. (2011:795) further
argue that communication is an interactive dialogue between the company and its customers,
“communication in relationship marketing means keeping in touch with valued customers,
providing timely and trustworthy information on service and service changes, and
communicating proactively if a delivery problem occurs”. It is the communicator’s task, in the
early stages, to build awareness, develop consumer preference (by promoting value, performance
and other features), convince interested buyers and encourage them to make the purchase
decision.

Based on the above discussions, a partner’s perception of past, present and future
communication from another partner will result in greater satisfaction if frequent and of high
quality, relevant, timely and reliable. The deduction is that communication leads to a strong
relationship satisfying both parties and should be proactive and not reactive.

This leads to the fourth hypothesis, which is:
H4 Communication has a positive influence on customer satisfaction

Satisfaction, Cooperation and Continuity

Wilson (1995:338) states, “Because we are discussing business relationships, performance satisfaction is a critical variable. Partners, especially sellers, must deliver high-level satisfaction on the basic elements of the business transaction. Buyers need to satisfy their partner’s business needs or they risk becoming marginalised”. Davis (2008:313) states that in order to be prosperous in a business relationship, it is required for organisations to analyse clients’ needs and determine satisfaction. In tandem with Ulaga and Eggert (2004:316), customer satisfaction is believed extensively among researchers to be a robust predictor of behavioural variables such as repurchases intentions, word-of-mouth or loyalty. Kotler (1994:20) stresses that noteworthy to customer retention and loyalty is customer satisfaction.

Ulaga and Eggert (2004:316) discovered that satisfaction is the most important predictor (compared to trust and commitment) of a firm’s decision not to terminate a relationship. Similarly, Rauyruen and Miller (2007) maintain that satisfaction influences behavioural loyalty (purchase intentions) compared to the effects of trust and commitment. Consequently, in agreement with the findings of Palmatier et al. (2006), this study positions satisfaction as a precursor to both continuity and cooperation. In this study, loyalty/continuity reflects expectations of the relationship duration while cooperation reflects willingness of one organisation to work with another. Both outcomes reflect the intentions and behaviours associated with working with another firm.

In light of this, the fifth and sixth hypotheses are developed as:

H5 Customer satisfaction has a positive influence on cooperation

H6 Customer satisfaction has a positive influence on continuity/or loyalty

Theoretical Framework for the Study

Drawing on literature and the conceptual frameworks discussed, a framework of dimensions (supplier competencies, trust, commitment and communication) is presented in Figure 1. The mediating variable is customer satisfaction and the outcomes are customer cooperation and loyalty.
The survey research method was selected for the current study, as the aim was to construct a model of RM for the cement industry. The main goal of quantitative survey research is to provide facts and estimates from a large, representative sample of respondents that can be used to generalise findings on relationships (Joseph et al., 2009:235). The personal survey method (interview administered survey) was selected for the current study in order to obtain information from decision makers in the cement industry. Wilson (2012:131) states, “personal interviewing methods involve meeting the respondent face-to-face and interviewing them using a paper-based questionnaire, a lap-top computer or an electronic notepad”. The personal interviewing method was regarded as most suitable for “business-to-business or organisational research, which requires interviews with business executives” (Burns and Bush, 2010:280). The current study used non-probability sampling in the form of judgemental sampling, which was considered the most suitable sampling technique for business-to-business markets in accordance with Wilson (2012:192). Sekaran and Bougie (2013:252) state, “judgemental sampling involves the choice of subjects who are most advantageously placed or in the best position to provide the information required”. In this respect, the current study is aimed at obtaining responses from a
specific target group of customers, the target population is defined as the top 500 cement manufacturing companies who purchase products and services for re-sale and use in their own production (Abdul-Muhmin, 2005:623). The sample elements or respondents included manufacturing companies in South Africa. A total of 362 respondents were targeted, constituting a large enough sample to generalise the results to the entire population.

FINDINGS AND DISCUSSION

Structural Equation Modelling

Structural equation modelling was used to examine and test the measurement and structural properties between the constructs of the conceptual framework. Svensson et al. (2010:5) states, “Structural Equation Modelling (SEM) is a statistical technique that describes relationships between variables”. According to Hair et al. (2006:711), “SEM is used to measure several variables, their interrelationship simultaneously and the multiple dependent relationships between variables”. For the purpose of the current study, the conceptual model was subjected to model fit indices in order to test its fit.

Figure 2
STRUCTURAL MODEL TESTING
The model fit indices in Table 1 were used to test appropriate fit:

<table>
<thead>
<tr>
<th>Model</th>
<th>NPAR</th>
<th>CMIN</th>
<th>DF</th>
<th>P</th>
<th>CMIN/DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Model</td>
<td>22</td>
<td>31.781</td>
<td>6</td>
<td>0.000</td>
<td>5.297</td>
</tr>
<tr>
<td>Saturated Model</td>
<td>28</td>
<td>0.000</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence Model</td>
<td>7</td>
<td>1920.524</td>
<td>21</td>
<td>0.000</td>
<td>91.454</td>
</tr>
</tbody>
</table>

Table 1 indicates CMIN/DF was acceptable (approximately 5). The chi-square is 31.781 with 6 degrees of freedom and probability level .000, which is regarded as an acceptable level.

<table>
<thead>
<tr>
<th>Model</th>
<th>RMR</th>
<th>GFI</th>
<th>AGFI</th>
<th>PGFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Model</td>
<td>17.655</td>
<td>0.976</td>
<td>0.890</td>
<td>0.209</td>
</tr>
<tr>
<td>Saturated Model</td>
<td>0.000</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence Model</td>
<td>743.784</td>
<td>0.307</td>
<td>0.076</td>
<td>0.230</td>
</tr>
</tbody>
</table>

Table 2 indicates a good level of GFI and AGFI (superior to 0.85)

<table>
<thead>
<tr>
<th>Model</th>
<th>NFI Delta1</th>
<th>RFI rho1</th>
<th>IFI Delta2</th>
<th>TLI rho2</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Model</td>
<td>0.983</td>
<td>0.942</td>
<td>0.987</td>
<td>0.952</td>
<td>0.986</td>
</tr>
<tr>
<td>Saturated Model</td>
<td>1.000</td>
<td></td>
<td>1.000</td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td>Independence Model</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 3 indicates a good level of TLI and CFI (superior to 0.85). Considering that more than four indices correspond to good fit, it can be concluded that the structural model presented in Figure 2 has a good model fit. As the result of the satisfactory findings in testing the measurement model, it was used to test the study hypotheses.

<table>
<thead>
<tr>
<th>Regression Weights</th>
<th>ESTIMATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction_Factor&lt;---Trust_Factor</td>
<td>0.356</td>
</tr>
<tr>
<td>Satisfaction_Factor&lt;---Communication_Factor</td>
<td>0.394</td>
</tr>
<tr>
<td>Satisfaction_Factor&lt;---Commitment_Factor</td>
<td>-0.016</td>
</tr>
<tr>
<td>Satisfaction_Factor&lt;---Competencies_Factor</td>
<td>0.016</td>
</tr>
<tr>
<td>Cooperation_Factor&lt;---Satisfaction_Factor</td>
<td>0.892</td>
</tr>
<tr>
<td>Loyalty_Factor&lt;---Satisfaction_Factor</td>
<td>0.862</td>
</tr>
</tbody>
</table>
Table 4 provides the exact values of the regression coefficients indicated in the structural model (Figure 2), the values show that commitment and competencies seem to have the smallest coefficients (0.016)

<table>
<thead>
<tr>
<th>Table 5</th>
<th>CORRELATIONS</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust_Factor &lt;---&gt; Competencies_Factor</td>
<td>0.747</td>
<td></td>
</tr>
<tr>
<td>Communication_Factor &lt;---&gt; Commitment_Factor</td>
<td>0.574</td>
<td></td>
</tr>
<tr>
<td>Trust_Factor &lt;---&gt; Communication_Factor</td>
<td>0.751</td>
<td></td>
</tr>
<tr>
<td>Communication_Factor &lt;---&gt; Competencies_Factor</td>
<td>0.825</td>
<td></td>
</tr>
<tr>
<td>Competencies_Factor &lt;---&gt; Commitment_Factor</td>
<td>0.572</td>
<td></td>
</tr>
<tr>
<td>Trust_Factor &lt;---&gt; Commitment_Factor</td>
<td>0.507</td>
<td></td>
</tr>
<tr>
<td>E3 &lt;---&gt; E4</td>
<td>0.518</td>
<td></td>
</tr>
<tr>
<td>E3 &lt;---&gt; E1</td>
<td>-0.387</td>
<td></td>
</tr>
<tr>
<td>E4 &lt;---&gt; E1</td>
<td>-0.190</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 provides the exact value of the correlations indicated on the structural model. According to the results, competency and communication almost overlap each other and are strongly correlated (0.825).

<table>
<thead>
<tr>
<th>Table 6</th>
<th>SQUARED MULTIPLE CORRELATIONS</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction_Factor</td>
<td>0.499</td>
<td></td>
</tr>
<tr>
<td>Loyalty_Factor</td>
<td>0.366</td>
<td></td>
</tr>
<tr>
<td>Cooperation_Factor</td>
<td>0.654</td>
<td></td>
</tr>
</tbody>
</table>

Table 6 indicates the amount of variance explained for each dependent variable. Variance facilitates identification of the most important variables in the model. According to the results, cooperation and satisfaction are regarded as the most significant variables in the South African cement industry environment as it shows the highest variance (respectively 65% and 50%). The most significant independent variables in the South African cement industry are communication (39%) and trust (36%).

**RM Dimensions for South African Cement Industry**

Figure 2 of the structural model indicates that satisfaction has the strongest predictive effect on cooperation (0.89) and loyalty (0.86). Communication has the second largest predictive effect on satisfaction (0.39) followed by trust on satisfaction (0.36). Competency and commitment have the weakest predictive effects on satisfaction (0.02 and -0.02, respectively).

Based on the regression and correlation analyses in terms of the structural model, results show that for the South Africa cement industry, satisfaction is the primary significant dimension of RM, followed sequentially by cooperation, communication, loyalty and trust. Competency and commitment are not regarded as important dimensions of RM for the cement industry.
Hypotheses Testing

A number of hypotheses were developed in order to achieve the objectives of the study. Results of correlations among constructs, regression among variables as well as the analyses of variables using the SEM enables a review of the study findings in relation to the specific hypotheses as presented in Table 7.

<table>
<thead>
<tr>
<th>Research hypothesis</th>
<th>Exogenous Construct</th>
<th>Endogenous Construct</th>
<th>Regression Weight</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Supplier competency has a direct and positive influence on customer satisfaction.</td>
<td>Supplier Competency</td>
<td>Satisfaction</td>
<td>0.2</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2: Trust has a direct and positive influence on customer satisfaction.</td>
<td>Trust</td>
<td>Satisfaction</td>
<td>0.36</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H3: Commitment has a direct and positive influence on customer satisfaction.</td>
<td>Commitment</td>
<td>Satisfaction</td>
<td>-0.02</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4: Communication has a direct and positive influence on customer satisfaction.</td>
<td>Communication</td>
<td>Satisfaction</td>
<td>0.039</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H5: Customer satisfaction has a direct and positive influence on cooperation.</td>
<td>Satisfaction</td>
<td>Cooperation</td>
<td>0.89</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H6: Customer satisfaction has a direct and positive influence on continuity.</td>
<td>Satisfaction</td>
<td>Loyalty/Continuity</td>
<td>0.86</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

Framework of RM Dimensions

One of the gaps the study aspired to fill was the development of a framework of RM from a business-to-business perspective for the South African cement industry. This was achieved by subjecting a proposed conceptual framework to structural equation model testing; the results are shown in Figure 3.
In accordance with the empirical findings of the study, the following have been identified as RM dimensions applicable to the South African cement industry, in order of importance:

- Satisfaction
- Communication
- Trust
- Supplier competency
- Commitment


- Cooperation
- Loyalty

### CONCLUSION AND RECOMMENDATION

RM is primarily concerned with retaining, attracting and maintaining customers in order to meet the mutual objectives of parties involved, by creating value for the customer and treating the customer as a co-producer. It involves the facilitation and management of relationships.
between the business and its customers. Customers have greater choice and are becoming more sophisticated as purchasers in the current environment. RM has become relevant to the cement industry, particularly subsequent to restructuring of the cartel system in 1994, which presented challenges for competitors entering the market, globalisation, changes in legislation and the need for long-term profitability. The literature reveals that while the approach to RM is of mutual benefit, it may not always be appropriate to pursue an entire problem-solving approach, as vulnerabilities and challenges may occur, which are associated with rigidly applying RM as a ‘straight jacket’. Therefore, when implementing relationship strategies, each case must be assessed on its merit by conducting a cost-benefit analysis.

A framework of RM dimensions for the cement industry in South Africa was developed. It is anticipated the framework will assist in addressing the deficiencies of implementing RM strategies. The outcomes of this study indicate that satisfaction plays a central role in relationship building in the South African cement industry. Customer satisfaction has an important influence on customer cooperation and loyalty.

The following recommendations are based on the findings of the study:

- It is recommended that a manufacturer of cement products develop strategies and procedures to ensure that the products or services offered be consistent with or exceed customer expectations. This requires cement manufacturers to invest resources for the satisfaction of customer needs in order to fulfil organisational goals and objectives. Satisfaction leads to cooperation and loyalty, which are important factors for suppliers in order to gain a competitive advantage. Loyal customers are more profitable, are likely to remain with the supplier for a long period and provide word-of-mouth referrals. Satisfaction leads to long-term relationship commitment and a decreased propensity to terminate relationships.

- A cement manufacturer should invest in strategies of achieving trust and effective communication. It should be noted that supplier competencies influence trust and communication influences commitment – an inter-relationship exists between trust and commitment.

- Cement suppliers must provide quality products in order to obtain trust from customers. As previously discussed, satisfaction has a significant influence on cooperation and cooperation in turn influences loyalty. Trust and communication have a direct influence on cooperation, which in turn influences loyalty. According to Alvarez et al. (2011:155), cement manufacturers must “strive to develop an organisational culture that involves all their employees, favouring both bottom-up and top-down communication”. Employees must have the perception that they form part of decision-making processes and as far as possible should be incentivised to perform duties with due consideration of customer satisfaction.

- In order to consolidate market position, retain customers and become more profitable, a cement supplier must generate trust, utilise effective communication strategies and ensure customer satisfaction. In this manner, the cement manufacturer is in a position to retain loyal customers indefinitely, who are willing to cooperate and provide positive word of mouth feedback, improving the company’s reputation in the industry.

- In order for cement organisations to acquire trust and enhance satisfaction, customers should receive individual services with personalised exchange of information.
• Effective communication strategies lead to greater customer satisfaction, which in turn leads to increased cooperation and loyalty. This also generates commitment, which in turn leads to trust and trust leads to satisfaction.
• Cement suppliers must provide specialised training programs on product usage, deploy tailor-made promotional campaigns and purchase dedicated tools and machinery in order to enhance relationship outcomes in terms of effectiveness and efficiency. In addition, technical assistance and a 24 h toll free help line are of paramount importance. This should be supported by on-site visits, laboratory tests and availability of competent technicians to assist customers in times of difficulty. As the industry and its products are of a technical nature, providing such services distinguishes an organisation, which is assured to increase the trust relationship between supplier and buyer.

REFERENCES


