



Contact personnel versus the organisation: Antecedents impacting
relationship quality in the business-to-business context.

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Abstract

The value of the organisation's credibility, reputation and interaction with customers equates to its relationship capital. Relationship capital defines the aptitude of an organisation to establish relationships in order to share information, knowledge, ideas, opportunities, contacts and referrals. However, the organisations as well as its personnel play a critical role in relational exchange and the quality of the relationship that is built with the customer. A strong positive relationship links relationship quality to suppliers, contact personnel and buyer's loyalty by focussing on both the organisation and the individual commitments in a B2B relationship. The study seeks to determine the importance of organisational commitment and individual commitment in improving relationship quality within the Life Science industry. This is achieved by focusing on the individual antecedents that form individual commitment, consisting of antecedents such as communication, similarity, interaction frequency and the seller's expertise. Similarly, it determines the buyer's commitment to the organisation which consists of antecedents such as dependence on seller, relationship age and relationship benefits.

The findings offer important insight of relationships between buyers and sellers in the B2B markets. The results indicate that relationship quality can be increased by simultaneously focussing on individual and organisational antecedents. The individual antecedents that significantly influence relationships in the Life Science industry are the seller's expertise followed by interaction frequency. Similarly, the organisational antecedents are the relationship age followed by relationship benefits. Overall, the age of the relationship followed by seller's expertise, interaction frequency and relationship benefits are the most effective relationship-building strategies across all elements of a relationship within this particular industry.

This research provides both an academic contribution to the relationship marketing field as well as a practical implication for managers and executives within organisations. The main contribution for academic purposes involves both confirmation and distinctions from hypothesised relationships. The dissimilarities found in this study speak to the importance of the industry setting in which these relationships exists. Furthermore, this study suggests the integration of two bodies of literature: individual and organisational commitment. This research is of specific value to managers who are responsible for increasing relationship capital within their organisations. Simultaneous

focus on these antecedents will allow managers to improve their relationship quality with the customer which would assist in retaining the customer on a long-term basis.

Keywords: relationship marketing, commitment levels, relationship quality, relationship antecedents.

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of requirements for the degree Masters of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Abbreviations

B2B	Business-to-Business
Exploratory Axis Factoring	EFA
Kaiser Meyer Olkin	KMO
Measure of Sample Adequacy	MSA
R-square	R ²
Randomised Response Technique	RRT
Relationship Marketing	RM
Relationship Quality	RQ
Return on Investment	ROI
South African Laboratory Diagnostic Association	SALDA
South African Medical device Association	SAMED
South Africa	SA
Structural Equation Modelling	SEM
Variance Inflation Factor	VIF
word of mouth	wom

Chapter 1

Introduction

1.1 Background

One of the most important and often overlooked assets of a business is its relationships. This can be construed as the organisation's relationship capital which is developed by both the organisational personnel that build personal relationships with customers and its suppliers as well as the marketing practices that are concerned with the long term value of customer relationships. Taking the challenging economic environment into account, the focus should be on retaining customers by building customer relationships, differentiating one's product offering, and adding value to the customer by understanding their needs. This will be to the benefit of both the end user and the organisation as it impacts customer loyalty and increase profitability for the organisation (Roshani, 2009).

Literature has indicated that relationships in the business-to-business environment can be mutually beneficial as they also help companies acquire new competencies, retain assets, gain quicker entry to market, and attract prospective investors (Stafford, 2008). Relationship marketing's emphasis is on interaction between parties (Beetles and Harris, 2010). By understanding the antecedents that influence relationship marketing in the business-to-business (B2B) context, organisations should be able to create, maintain, and enhancing successful relational exchange with customers and other stakeholders (Morgan and Hunt, 1994; Zineldin and Philipson, 2007).

The organisation as well as its personnel plays a critical role in relational exchange and the quality of the relationship that is built with the customer. A strong positive relationship links relationship quality to suppliers, contact personnel and buyer's loyalty by focussing on both the organisation and the individual commitments in a B2B relationship (Palmatier, Dant, Grewal and Evans, 2006). It is therefore essential to understand that there are two forms of interaction or commitment levels in the B2B context, organisational commitments and individual commitments. Thus buyer-supplier relationships focus on customer relationships with the contact personnel and relationships with the supplying organisation, which influences the relationship quality (Alejandro, Souza, Boles, Ribeiro, and Monteiro, 2011).

From an academic perspective, the simultaneous role of contact personnel and the organisation's role in establishing these relationships is an area that has received relatively little attention. Researchers have focused their studies on the relationships between organisations (Wilson, 1995), where other studies investigated the relationships between individuals and the buyer (Boles, Johnson, and Barksdale, 2000; Cannon and Perreault, 1999). Very few researchers to date have focused their attention on simultaneously exploring these relationships. Anderson and Narus (1990) explored the different levels of trust between contact personnel and organisations. Similarly Swan and Nolan (1985) and Young and Wilkinson (1989) discussed the different levels but they did not focus on the similarities and differences between the levels of trust, let alone other relationship antecedents. Although Doney and Cannon (1997) studied antecedents of RM their focus was on trust only in buyer–seller relationships. Palmatier, Dant, Grewal and Evans (2006) summarised the most commonly studied antecedents in RM however they could not determine the most important constructs. Delineating the antecedents that are influenced by contact personnel and those that are the direct responsibility of the organisation may have significant implications for research and practice.

While the antecedents influencing the effectiveness of RM have been well established in literature (Palmatier, Dant, Grewal and Evans, 2006; Theron and Terblanche, 2010), researchers still have opposing views with regards to the relative importance of antecedent that influence relational exchange in the business-to-business context. It may be possible that these antecedents are industry specific and therefore it is necessary to simultaneously research the role of contact personnel and the role of the organisation in establishing long term relationships within a specific industry (Alejandro *et al.*, 2011).

1.2 Research problem

The preceding discussion has highlighted the following:

- In order to gain insight into relationship marketing, it is essential to study antecedents that influence both organisational commitments and individual commitments. These antecedents directly influence the quality of the relationship with the customer.

- Alejandro *et al.* (2011) has suggested that the most critical antecedents in relational exchange may be industry specific. This alludes to the fact that within different industries the importance of the relationship antecedents may differ.

Palmatier, Dant, Grewal and Evans (2006) conclude that relationship marketing has an important influence in industries that have particular service offerings, channel exchanges or in business markets where relationships are built with an individual and organisations. However, buyers have a different sense of loyalty towards contact personnel, than what they have towards the partner organisation itself (Bendapudi and Leone, 2002). The threat for organisations that employ the contact personnel is that the larger part of the relationship might be owned by the contact person rather than the organisation itself (Palmatier, Scheer, and Steenkamp, 2007). Furthermore, the contact person, who owns these relationships, could potentially move to a competitor.

By simultaneously exploring the antecedents that influence individual commitment and organisational commitment, organisations may be able to form relationships with customers to increase the relationship quality, reduce costs to customers, increase customer experience, and decrease customer expenses (Gilaninia, Almani, Pournaserani, and Mousavian, 2011). This may allow the organisation to own a larger part of the relationship with the customer, changing the bases of competition. Athanasopoulou (2009) concur by stating that relationship quality influence performance benefits and relational benefits which in-turn strengthen an organisation's competitive advantage. Roshani (2009) concurs and states that relationship marketing has a direct impact on customer satisfaction and loyalty, thus increasing profitability and decreasing costs.

1.3 Significance of the problem

The problem stated above is not unique to a specific industry. Many organisations within the financial sector, the automotive sector, the scientific and even in the consulting arena are faced with similar problems. From a practical perspective, it is essential for managers to manage both the individual commitment through their contact personnel and the organisational commitment concurrently to ensure customer retention. From an academic perspective, the problem stated above enables researchers to integrate two areas of literature which to-date has discussed individual and organistaional relationships in separate streams.

Although many firms are successful in their particular industry of interest, one questions how competitive they may become once they realise which relational antecedent most strongly influence relationship quality and customer loyalty in their specific industry. Due to the fact that strong buyer-seller relationships could be viewed as a competitive advantage, or as a differentiator if managed correctly, it is essential that researchers understand the drivers of relational exchange within that sector (Cannon and Perreault, 1999; Zaheer, McEvily and Perrone, 1998). This was confirmed by Liang, Wang and Farquhar (2009) who concluded that a focus on customer relationships might lay the foundation for expanding strategies and hereby building long lasting customer value. These strategies then give companies a continued competitive advantage, which in turn leads to an increase in their' financial performance.

1.4 Aim and objective of the study

This research investigates the role of contact personnel and the organisations, on relationship quality in the B2B context. By further developing this paradigm, managers can gain insights into how buyers view trading partners. In addition, it will explore how buyers form their impressions of a trading partner as an organisation relative to contact personnel as well as the relative benefits they seek from their organisational and inter-personal relationships.

The objectives of this study are as follows

- To examine the literature to determine the individual–individual antecedents that affect RQ and how they are weighted by the buyer.
- To examine the literature to determine the individual–firm antecedents that affect RQ and how they are weighted by the buyer.
- Investigating the effect of these relationships on the buyer's relationship quality.

1.5 Limitations and delimitations

As previously stated Palmatier, Dant, Grewal and Evans (2006) conclude that relationship marketing has an important influence in industries that have particular service offerings, channel exchanges or in business markets where relationships are built with an individual and organisations. However, Alejandro *et al.* (2011) allude to the fact that the antecedents that affect relationship marketing are industry specific. This research is limited to the Life Science industry. The degree of generalizability of the findings in different business contexts may be questioned. One can only generalise the findings once this study has been repeated in different industries within both developed and emerging economic settings.

Only the major antecedents in the relational exchange literature were added to the conceptual construct. This study is limited to the relationship antecedents as proposed in Figure 3.1 within Chapter Three. While Theron and Terblanche (2010) have recently described twenty-three dimensions of relationship marketing, those most relevant to the industry of study must be selected. The antecedents selected are not conclusive to relationship marketing and can be extended to include additional antecedents or relationship mediators.

Furthermore, the outcome of relationship quality was not tested in this study. Future research may focus their attention on extending the construct to include customer and sellers focussed outcomes such as word of mouth referrals or customer loyalty. Alternatively, future research may be directed towards the effects of relationship antecedents on the consequences of relationships at different commitment levels. Longitudinal research would add valuable insight as these relationships evolve over time.

1.6 Outline of the study

The study of the role of contact personnel and the organisations on relationship quality in the business-to-business context is encapsulated and set out in the following chapters and are briefly outlined as follows:

Chapter 2: Literature review

This chapter is dedicated to study and review related literature. The objective of this review is to describe and evaluate the theoretical perspective and previous research findings regarding the stated research objectives in Chapter One. The emphasis will be on relationship marketing commitments in the business-to-business context, relationship quality as well as antecedents to relationship quality that influence customer loyalty.

Chapter 3: Research hypotheses

This chapter will confine itself to the formulated hypotheses to systematically investigate the individual and organisational antecedents in relation to relationship quality which will expand our knowledge of the relational exchange in the Life Science industry.

Chapter 4: Research methodology

This chapter is dedicated to the methodology applied and techniques used in order to research the hypotheses stated in Chapter Three. It addresses the following:

- Research design
- Sampling frame and sampling techniques
- The research instrument
- Pilot study
- Data analysis

Chapter 5: Results

This chapter will be limited to the results obtained from the methodological investigation conducted in Chapter Four. The findings will be tabulated and graphically presented for each of the identified hypotheses.

Chapter 6: Discussion

The objective of this chapter is to construe, discuss and evaluate the results of the findings for each test laid out in Chapter Four. In addition, the analysis will focus on answering the research hypotheses described in Chapter Three as well as ensuring achievement of the stated aim and objectives of this research as described in Chapter One.

Chapter 7: Conclusion and Limitations

This chapter will conclude the study as a whole and will provide managers with a clear understanding of the drivers of relational exchange which influences relationship quality and customer loyalty. Finally, the limitations are noted, and future research directions are suggested.

1.7 Conclusion

This research focuses its attention on the antecedents that impact relationship quality in the Life Science industry, while considering both individual and organisational commitment. Developing this paradigm may contribute to the corporate environment within this sector by indicating to managers how buyers view organisations, and their contact personnel. The research may also prove that buyers form distinctly different relationships of an organisation and its contact personnel which have an influence on the relationship quality of that customer. The outcome of this research may influence the way in which managers approach customers in future.

Chapter 2

Literature Review

2.1 Introduction

Relationship marketing has been identified as a crucial component in day-to-day marketing practice and academic marketing research (Hennig-Thurau, Langer and Hansen, 2001). Relationship marketing can be used as a strategy for continued competitive advantage and ever-increasing customer retention (Roberts, Varki, and Brodie, 2003; Sharma, 2007). Very little research to date has focused attention on relationship marketing and antecedents within business-to-business markets that influence relationship quality (Beatty, Mayer, Coleman, Reynolds and Lee, 1996; De Wulf, Odekerken-Schroder, and Iacobucci, 2001). In addition, Alejandro *et al.*, (2011) has alluded to the fact that the most critical antecedents in relational exchange may be industry specific.

It is therefore the aim of this paper to understand the relationship from a buyer's perspective, by focussing on the antecedents necessary to expand and execute strategies to sustain customer loyalty. These antecedents can further be grouped to understand the roles that contact personnel and organisations play in establishing long term relationships. In order to fully comprehend these relationships, the quality of the relationship as well as the antecedents that play a role in the business-to-business environment was investigated.

2.2 Defining relationship marketing

Relationship Marketing (RM) is commonly understood as marketing which includes relationship, networks and interactions (Gummesson, 1994). RM includes commercial relationships between financial collaborators, service providers and customers within the value chain and business-to-business (B2B) environment. The earliest studies on the relational paradigm within the management research dates back to the 1960's, defining RM as networks and relational interactions (Evan, 1966; Levine and White, 1961). The change in the business environment during the 1990's by Japanese organisations, particularly 'just-in-time operations', influenced the competitiveness of European and American organisations causing the field of RM to expand drastically

(Webster, 1992). These organisations' competitive advantage could be attributed to the strengths of their business relationships.

Since then the RM field has evolved to include dyadic relationships that influence strategy and organisational competitiveness (Roberts, Varki, and Brodie, 2003; Sharma, 2007). As the afield of RM has expanded, service organisations have acknowledged the significance of building more sustainable and continued relationships with their customers (Eisingerich and Bell, 2007). Currently research is focused on the antecedents and their effects on relationship quality within the different types of relationships, as well as their outcomes in various industries (Alejandro *et al.*, 2011).

2.3 Theorising relationship marketing

The Social Exchange Theory (SET) and the Commitment-Trust Theory underpins RM. SET, which has roots in sociology, psychology and economics, defines changes in stability of relationships between interacting parties by calculating the overall worth of a particular relationship (Blau, 1964; Befu, 1977). Stafford (2008) suggested that SET distinguishes between economic exchanges and social exchanges. Social exchanges involve interpersonal connections which are flexible while economic exchanges involve trust and are more inflexible in nature. This theory has been used in various studies in RM to further the understanding of variables like trust, commitment and communication and their influence on relationships (O'Malley, Patterson, and Kelly-Holmes, 2008).

Similarly, the commitment trust theory defines market driven organisations reliant on commitment and trust (Bleeke and Ernst, 1993). Commitment and trust are crucial as they allow cooperative behaviour between the parties involved. The theory emphasises the negative consequences of short-term substitutes and favours long-term benefits between the parties involved. Partners believe that acting opportunistically is not in the best interest of the relationship. Together, both commitment and trust leads to productivity, efficiency and effectiveness (Morgan and Hunt, 1994).

While Morgan and Hunt (1994) acknowledge the SET, they believe that SET is unsound as it characterises commitment as a variable. They argue that relational commitment is central to RM and should rather be described as key mediating variables in relationships.

RM has also been described by means of the reciprocal action theory. Actions taken by one person in an exchange relationship will be reciprocated in kind by the other. This is due to the fact that both the parties involved expect the feelings of guilt if the norm is not reciprocated (Li and Dant, 1997). In contrast, Moon (2000) questions this theory by stating that reciprocal interaction between a buyer and a company would require a one-to-one interaction with every buyer. Due to the fact that RM is focussed on both the organisation and the individual commitments in a B2B relationship, the theory underlining individual commitment was considered.

2.4 Relationship marketing commitments in the B2B environment

In the 1970's, the International Marketing and Purchasing Group (IMP: a loose network of European researchers) established that relationships are essential in the process of inter-organisational exchange. They concluded that these relationships were often more important than the price and that the relations between the buyer and seller was essential to the formation and maintenance of the relationship (Ford, 1997). The IMPs conclusions also point towards the fact that personal contact differs in style - some individual favour "formality over informality" while others favour "closeness over remoteness" (Gummesson, 1996). Overall, the research of IMP highlighted relationships between selling and purchasing firms.

As the field of RM developed, it led to a variety of predicaments which included the management of individual relationships, the avoidance of institutionalisation and how the relationships between the two parties could be advanced (Fournier, 1998; O'Malley, Patterson and Evans, 1997). It is therefore essential to understand that there are two forms of commitments in B2B dyads namely organisational commitments and individual commitments.

Organisational commitment involves the buyer's commitment to a trading partner's organisation while individual commitment involves a buyer's bond with a particular individual within the partner's organisation. Tellefsen and Thomas (2005) suggest that personal commitment is distinct from organisational commitment. It alludes to the fact that business service buyers consider both organisational and personal factors when managing their organisations exchange relationships. It is therefore important to understand how organisational and individual antecedents are weighted by buyers in their industry. Insight into the weighting of the individual versus organisational

commitments, within this industry, has important managerial implications as firms try and increase customer efficiency and customer retention.

2.4.1 Commitment levels

2.4.1.1 Individual commitment (individual–individual relationship)

Studies conducted on interpersonal relationships, such as account managers or sales personnel, suggest that these contact personnel play a critical role in the relationship with buyers (Alejandro *et al.*, 2011). Tellefsen and Thomas (2005) state that contact personnel think and act as individuals rather than expansions of their organisations.

Contact personnel can adopt two roles when dealing with customers: the role of business partner that follows a logic of consequences, and the role of social acquaintance that follows logic of appropriateness (Jones, Taylor and Bansal, 2008). Heide and Wathne (2006) suggest that business partner opportunities follow the logic of consequences, laying emphasis on the extrinsic need of the partners to successfully further the relationship. In contrast the role of social acquaintance is intrinsically motivated, laying emphasis on the need to further the relationship, for the sake of the relationship itself. Customer-oriented behaviours in which either one of these roles need to be established can have negative consequences for the organisation, as either of these roles could be deemed inappropriate by the customer. An example of this would be where customers anticipate the contact person to adopt the role of business partner, and the sales person attempt to create a personal connection. This causes the sales person to be perceived as insincere (Hennig-Thurau, Groth, Paul and Gremler, 2006). The successful adoption of either one of the relationship roles, will allow the contact person to manipulate the purchasing process to fulfil their own personal goals, as well as that of the organisation. These findings correspond with the suggestions of Mummalaneni (1995) who suggested that stronger personal bonds between buyers and sellers leads to increased commitment to sustain the relationship. It is therefore suggested that these individual relationships have a direct impact on financial outcomes (O'Laughlin and Malle, 2002).

As convictions in interpersonal relationship gradually develop, the buyer's relationship quality with the salesperson becomes stronger. Hamilton and Sherman (1996) state that subjects asked to evaluate a contact person will offer previously formed, well-developed judgments, about that individual. The recall model helps buyers to form judgments about firms, and therefore the latest information from the firm is suggested

to be more important than relationship duration. Palmatier, Scheer, and Steenkamp (2007) go as far as to suggest that the larger part of the relationship could be “owned” by the contact person. The threat however remains, contact persons who own these relationships, could potentially to move to a competitor.

2.4.1.2 Organisational commitment (individual–firm relationship)

The individual-firm level can be divided into employee-firm as well as buyer-firm relationships. Ganesan and Hess (1997) concluded that buyers differentiate between trust in contact personnel and trust in the organisation. Their conclusion confirmed the findings of Iacobucci and Ostrom (1996) who found that individual-to-firm relationships are more fragile and have a smaller influence than interpersonal relationships. The research further suggests that buyers have a different sense of loyalty towards contact personnel, than what they have towards the partner organisation itself (Bendapudi and Leone, 2002). These findings confirm the findings of Hamilton and Sherman (1996) that used a recall model. They found that when assessing a group or an entire firm, people make less assured, feebler, slower judgments than what they would when assessing a contact person or account manager. Other considerations that influence the individual-firm relationship might be brand identification and familiarity with the product. This causes greater satisfaction and trust (Ha and Perks, 2005).

While employee-firm relationships are not the essence of this study, it is worth mentioning that these relationships also affect the relational quality and loyalty of the buyer. Capon (2011) concludes that it is of great importance for organisations to ensure that the internal functions are linked to maximise offerings to their buyers. Organisational buy-in is necessary in order for the organisation to deliver on the promises made by its contact personnel. Homburg and Jensen (2007) suggest that business performance increases if there is interdepartmental coordination within the organisation. Disparity in relationships between different organisational departments, results in inter-functional conflict (Massey and Dawes, 2007). This conflict negatively influences the employee-firm relationship. A breakdown in the employee-firm relationship in turn leads to a reduction in teamwork and an increase in distrust, which eventually affect the firm’s relationship with the buyer (De Dreu and Weingart, 2003).

2.5 Relationship quality

Relationship quality (RQ) can be defined as the value of interaction between the buyer and a supplier (Gummesson, 1987). The value of this relationship can be inferred to in terms of collected worth. Later Jap (2001) defined RQ as a construct that is comprise of satisfaction, fair results and the tendency to continue collaboration. The most recent definition of RQ is the '*degree of appropriateness of a relationship to fulfil the needs of the customer associated with the relationship*' (Hennig-Thurau and Klee, 1997, p.751). While these definitions have overlapping similarities, they mostly concur that RQ varies from period to period. During the initial stages the magnitude of the relationship value is critical, while in the developed phases of the relationship, the value of the relationship is more important.

Literature has described relationship quality as both a higher order construct and as a meta-construct (De Wulf *et al.*, 2001; Hennig-Thurau, Gwinner, and Gremler, 2002; Palmatier *et al.*, (2006). Although literature is in disagreement about relationship quality as a construct, there is common agreement amongst researchers that satisfaction, trust and commitment are dimensions of relationship quality (Crosby, Evans and Cowles, 1990; De Wulf *et al.*, 2001; Dorsch, Swanson and Kelly, 1998; Hennig-Thurau and Klee, 1997; Hennig-Tharau *et al.*, 2002; Huang, 2001; Roberts *et al.*, 2003). The benefit of describing relationship quality as a multi-dimensional meta-construct, rather than a higher order construct, is the prospect of developing the concept and associations between its dimensions (Beatson, Lings and Gudergan, 2008). The researcher adopted a conceptual approach where relationship quality is regarded as a meta-construct composed of three core dimensions, namely satisfaction, trust and commitment.

The existing literature offers an extensive background for the dimensions of trust (Hibbard, Brunel, Dant and Iacobucci, 2001; O'Malley *et al.*, 2008; Sirdeshmukh, Singh and Sabol, 2002), commitment (Moorman, Zaltman, and Deshpandé, 1992; Morgan and Hunt, 1994; Jap and Ganesan, 2000), and satisfaction (Crosby, Evans, and Cowles 1990; Reynolds and Beatty, 1999).

2.5.1 Dimensions of relationship quality

2.5.1.1 Trust

Trust denotes the seeming reliability and care of a firm or individual towards a buyer (Doney and Cannon, 1997). It symbolises that the firm or individual representing the firm will make accurate statements, fulfil their undertakings, and action transactions in the buyers' best interest (Moorman, Zaltman, and Deshpandé, 1992). Trust has been considered in the context of the intent of the buyers to purchase from specific suppliers in future hereby influencing long-term relationships with customers. Doney and Cannon (1997) suggest that trust and commitment of the firm and contact person have different effects on probable future interaction. They emphasise that key contacts between firms are gradually becoming more important. Dealings with the organisation may come to an abrupt end if the key contact person were to leave or if their employment is terminated (Bendapudi and Leone, 2002). Furthermore Zhang, Ghorbani and Cohen (2007) concluded that familiarity is often measured as a critical factor in shaping the level of trust between contact people and buyers. Trust has been extensively researched in social literature, so much so that "norms of trust" are distinguished as a management theory (Barney, 1990). Sherman concluded that the biggest downfall of successful partnerships is the lack of trust (1992).

Morgan and Hunt (1994) believe that the effectiveness of the relationships is built on both commitment and trust. This leads to competent organisations that are productive and effective in their dealings with the buyer. The foundation for sustaining relationships is the keeping of promises (Grönroos, 1990). If a supplier is unable to keep a promise, the buyer will not repeat the purchase of a product and the relationship will come to an end.

2.5.1.2 Commitment

Literature has also focussed on understanding the buyer's commitment to the contact person (Hansen and Riggle, 2009). Johnson, Barksdale, and Boles, define the buyer's commitment to the contact person as a *'long-term orientation that includes a willingness to make short-term sacrifices to maintain the relationship with the salesperson'* (2001, p. 126). This could also be referred to as the norm of reciprocity, which requires individuals responding to others in kind. Anderson and Weitz (1992) used the norm of reciprocity to propose that commitment between a buyer and seller does exist due to the buyer's perception of the supplier's commitment and the buyer's

actual level of commitment. Jap and Ganesan (2000) conclude that a buyer's perception of a committed supplier creates a belief that the supplier is willing to maintain a stable relationship.

These relations create perceptions of financial benefits, higher-quality products, service and support. This in turn creates an improved level of satisfaction with the relationship. These findings support those of Morgan and Hunt (1994) who found that commitment has a positive impact on the development and maintenance of successful long-term relationships. Anton, Camarero, and Carrero (2007) conclude that a reduced level of commitment from a supplier influence the buyer–seller relationship, which affects the customer's willingness to remain in a relationship.

2.5.1.3 Satisfaction

Satisfaction can be defined as the buyer's sentimental or emotive state toward a relationship, classically calculated over the history of the exchange. Relationship satisfaction reveals the customer's satisfaction with the relationship which varies distinctly from the buyers' satisfaction with the total transaction (Reynolds and Beatty, 1999). Jap (2001) suggests that satisfaction boosts buyer-seller commitment, hereby playing a profound role in contributing to long-term inter-firm relationships. In addition, relationship antecedents such as frequency and interaction have been proven to have a positive link to buyer satisfaction and increase support service outcomes (Stan, Landry, and Evans, 2004). Conversely, Gronhaug and Gilly (1991) concluded, that disappointed consumers could stay loyal due to consequence of high switching costs. These findings are similar to the conclusions of Abdul-Muhmin (2005) who later suggested a negative relationship between satisfaction and propensity to terminate a relationship.

Furthermore, the buyer's satisfaction with the contact personnel might be dependent on the assessment of the relationship between the two parties. A buyer's satisfaction with a contact person has been renowned for relationship development (Longfellow, 1995), and product satisfaction (Oliver and Swan, 1989).

2.5.2 Relationship quality in individual commitment

Crosby, Evans and Cowles conclude that RQ has a considerable influence on the expectation of the buyer to interact with the contact person in the future. Palmatier *et*

al. (2006) agree by stating that a strong positive relationship, link relationship quality to suppliers, contact personnel and buyer loyalty. The findings of Alejandro *et al.* contrasted these findings by concluding that there is a strong relationship between contact personnel and loyalty but not between the firm and loyalty (2011). This alludes to the fact that individual-individual relationships are stronger than individual-firm relationships in establishing customer loyalty.

Dwyer, Schurr, and Oh (1987) explain that the RQ development process between individuals is a five-phased model. The initial awareness phase includes acknowledgment of a cooperative relationship between two individuals based on self-analysis and compatibility. The awareness phase is followed by the exploratory phase in which individuals engage in conversation with the aim of satisfying each other's needs and to discuss the ability to deliver on the requirements stated. The expansion phase pursues the exploratory phase which is dependent on the trust that among the individuals. The commitment phase involves high levels of commitment from both individuals involved. Substitute exchange partners can be eliminated if the level on trust and satisfaction is satisfactory. The fifth phase, termination, is the result of unsettled complications for instance operational and cultural differences. Amid the five phases of relationship exchange, commitment has been accepted as the most enviable phase in relationship development due to the fact that both employee-commitment and customer-commitment is required to satisfy both parties (Dwyer, Schurr, and Oh, 1987; Ndubisi, 2007).

2.5.3 Relationship quality in organisational commitment

Successful RQ dimensions develop customer loyalty and organisational performance through stronger organisational bonds. B2B relationships have been described as critical in the marketing literature due to the fact that these relationships influence earnings, profitability and cost which plays a role in the loyalty of the buyer (Ndubisi, 2007; Seybold, 2001). Other benefits of relationship marketing depicted by Guo, Duff and Hair (2010) include cooperation (Zineldin, 1995), commitment (Kassim *et al.*, 2006), social benefits (Henning-Thurau *et al.*, 2002) and exchange of information (Boot, 2000).

2.6 Antecedents to relationship quality

While the antecedents influencing the effectiveness of RM have been well established in literature (Palmatier *et al.*, 2006; Theron and Terblanche, 2010), researchers still have opposing views with regards to the main antecedent that influence relational exchange in the B2B context. It may be possible that these antecedents are industry specific and therefore it is necessary to research the role of contact personnel versus the organisation in establishing long term relationships within a specific industry (Alejandro *et al.*, 2011). The consideration of the organisational and individual antecedents will allow organisations to implement strategies and ultimately maintaining customer loyalty. These antecedents and their definitions have been summarised in Table 2.1.

Table 2.1 Summary of the antecedents to relationship quality.

Antecedents	Definition	Reference
Antecedents to individual relationships		
Communication	Formal and informal sharing of meaningful and timely information. It refers to the amount, frequency and quality of info shared	Anderson and Weitz; 1992 Mohr, Fisher and Nevin, 1996 Morgan and Hunt, 1994 Vatanasombut <i>et al.</i> , 2008
Similarity	Common in virtues, appearance lifestyle, or language. Similar cultures values and goals between organisations	Crosby, Evans and Cowles, 1990 Doney and Cannon, 1997 Morgan and Hunt, 1994 Vatanasombut <i>et al.</i> , 2008
Interaction frequency	Numbers of interactions between exchange partners	Crosby, Evans and Cowles, 1990 Doney and Cannon, 1997
Sellers Expertise	Knowledge, experience and overall competency of seller	Crosby, Evans and Cowles, 1990 Sichtmann, 2007
Antecedents to organisational relationships		
Dependence on seller	The extent to which there are no better alternatives available in the market Also referred to as switching cost and imbalance of power	Goa <i>et al.</i> , 2005 Hibbard, Kumar and Stern, 2001
Relationship benefits	The economic and strategic advantages that enhance Competitiveness	Sweeney and Web, 2007
Relationship Investment	Sellers investment of time, effort and resources in buyer	De Wulf, Oderkerken-Schröder and Iacobucci, 2001; Ganesan, 1994
Relationship Age	Length of time that the relationship between the exchange partners have existed	Anderson and Weitz; 1992 Doney and Cannon, 1997

Adapted from Palmatier *et al.*, 2006; Theron and Terblanche, 2010.

2.6.1. Individual antecedents

2.6.1.1 Communication

Communication points towards the amount, frequency, and quality of information shared between the buyer and contact personnel (Palmatier *et al.*, 2007). Benefits drawn from positive communication are collaboration between parties, an increase in information exchange and an increase in sharing between the parties involved (Mohr, Fisher and Nevin, 1996). In addition, communication has been linked to long-term marketing relationships (Fam and Waller, 2008; Palvia 2009). Various technological advances in the last decade have helped sellers build these long term relationships, making individual-individual communication effortless in the 21st century. E-mail communication, specifically, has broken down barriers between organisations and individuals and has increased the amount of information that individuals have to their disposal (Andersen and Guerrero, 1998). This occurs due to the reason that communication causes buyers and contact personnel to adjust tasks in a beneficial manner which fosters confidence in the continuity of the relationship.

2.6.1.2 Similarity

The social psychological theory of similarity-attraction, propose that people are attracted to others who are similar to them (Byrne and Griffitt, 1969). Similarity can broadly be defined as commonality in appearance or cultural similarities, values and goals. Byrne and Griffitt (1969) suggest that similarity is rewarding. The reward-based explanation for similarity influence relational exchange by means of uncertainty reduction, and pleasurable and enjoyable interactions (Morry, 2005). Uncertainty reductions influence the exchange partners' predictability and allow more efficient communication between the parties involved (Baxter and West, 2003). As communication ease is increased, the potential for conflict is decreased. This can be attributed to similarities in cognitive and communication style (Burlison and Denton, 1992).

Shared similarities with the buyer will increase relationship benefits and could also promote customer dependency (Palmatier *et al.*, 2006). Hence, companies should consider personalising marketing material in order to benefit from the potential effects of similarity. Kumar and Benbasat (2006) define personalisation as the process of providing special treatment to customers by making material and applications available to meet their needs. Al-Natour, Benbasat and Cenfetelli (2011) therefore recommend

that personalisation should be extended to mimic customer characteristics, thereby personalising the message content, the communication style, and the behaviour of the contact personnel to better suit each customer's personality. The contact person's ability to adapt their selling technique to the needs of the customer will enhance performance results and customer satisfaction which improves the customers' expectation of future interactions with the contact person.

2.6.1.3 Interaction frequency

Interaction frequency points toward the frequency of business contact and interaction intensity amongst the contact personnel and the buyer. Román and Martin (2008) conducted a longitudinal study and found that an increase in call frequency of contact personnel has a positive outcome on sales volume, perceived service quality and customer satisfaction in general. Moreover, these effects tend to weaken as relationships become more extensive, and are stronger as the contact personnel move up the chain of command in the buying company.

Crosby, Evans and Cowles (1990) found that the customers' expectation of future contact with the sales person has a critical influence on relationship quality. These conclusions were drawn from the findings that indicated that regular buyer-seller contact create cooperative intent between the two parties, leading to an increase in customer disclosure of needs-related information. Selling techniques which include regular customer visits, regular needs analysis and personal attention, creates the intent that the contact persons is co-operatively investing in the relationship rather than the perception that the contact person is looking for short term gains.

The impact on management in regards to these findings suggests that more vigorous recruiting processes should be followed when hiring contact and marketing personnel. The applicants should be able to facilitate and retain long-term interpersonal relationships. Their ability to focus their attention on transaction-specific detail as well as on building the relationship itself should be rewarded by the organisations.

2.6.1.4 Sellers expertise

Knowledge, experience, and the general competency of seller have been found to be a critical value-creating feature (Vargo and Lusch, 2004). The research suggests that contact personnel with more experience and knowledge could cause a buyer to become committed to particular sellers. This is more commonly referred to as customer orientated selling, defined more closely as the extent to which contact personnel customise their marketing skills, in order to assist the buyer to make buying choices that will fulfil their requirements (Saxe and Weitz, 1982). The seller's competence has been proven to be a key determinant of the customer's perceived trust in the salesperson, thereby affecting the relationship quality (Crosby Evans, and Cowles, 1990). Customers tend to evaluate contact personnel who are placed to engage in problem-solving situations. They also evaluate the managerial commitment to foresee and elucidate complications that may arise during or after a service exchange in a satisfactory manner (Sirdeshmukh *et al.*, 2002). Customer expectations regarding the contact person's role is stronger when associated with strong brands (Lynch and de Chernatony, 2004).

In addition, the contact person must be able to control certain customer-qualification skills. Customer-qualification skills suggest that contact personnel master the ability to categorise different sales prospects. Thus the ability to identify and group different client types, as well as their associated product and selling requirements (Román and Iacobucci, 2010). The ability to apply ones qualification and the ability to master customer-qualification skills will increase long-term customer satisfaction as these contact personnel are perceived to be more trustworthy due to successful information communication. Nicholson, Compeau, and Sethi, (2001) further argue that these sellers are more likable and unsurprisingly provide a social experience that is more enjoyable to the buyer.

2.6.2 Organisational antecedents

2.6.2.1 Customer dependence

Emerson's (1962) definition of customer dependence is described as the degree to which partners provide valued resources for which there are small amounts of substitute products to supply. Relational dependence can be described by means of two theoretical standpoints. These include the resource dependence theory (Pfeffer and Salancik, 1978), transaction cost economics (Williamson, 1985) and the social-

exchange theory (Homans, 1974). Sheer, Miao and Garrett (2009) moreover propose that supplier capabilities motivate loyalty through these two dimensions of dependence. Benefit based dependence can be defined as the need to sustain the relationship due to its irreplaceable net benefits that have an on-going relationship as a consequence. In contrast, cost-based dependency can be defined as the need to sustain the relationship due to additional expenses that will be suffered if the relationship ends. Benefit-based dependence can thus otherwise be described as the opportunity costs of the remaining benefits foregone if the relationship terminates. Cheng and Grimm (2006) conclude that dependence is essential to create stronger supply chain linkages.

Roemer (2006) suggest that dependence distribution between suppliers and customers could have four diverse outcomes, depending on whether dependence is high or low on either side of the relationship (Table 2.2). A symmetric relationship can be defined as those relationships where dependence is equally distributed (Types 1 and 4). Type 1, or otherwise seen as bilateral monopolies, point towards high dependence from both the buyer and sellers side as alternative options are low. Type 4 in turn refers to relationships with low dependence on either side. In these relationships both the buyer and seller find it easy to switch to alternative suppliers when a problem arises. Type 2 and 3 refers to asymmetrical relationships where opportunism occurs as the less dependent party may exploit the more dependent party (Gundlach and Cadotte, 1994).

Table 2.2 Dependence distribution between suppliers and customers.

1. Symmetric Dependence	2. Buyer's Dependence	High	Buyer's Dependence
3. Supplier's Dependence	4. Symmetric Independence	Low	
High	Low	Suppliers Dependence	

Adopted from Roemer (2006).

The suggested customer approaches in terms of the dependence distribution as well as managerial implications are summarised in Table 2.3.

Table 2.3 Customer valuation and managerial implications in different types of relationships.

	Type 1	Type 2	Type 3	Type 4
Suppliers strategy	Inflexible	Flexible	Inflexible	Flexible
Customers' inclination to opportunism	Not expected	Not expected	Possible	Possible but ineffective
Future planning horizon	Long-term	Medium-term	Medium-term	Potentially short-term
Managerial implications	Maintain mutual interdependence	Reduce switching cost, also watch out for potential benefits of long-term relationships	Increase switching costs on the customer's part and thus move toward Type 1	Either keep switching or both partners commit to each other and move forwards Type 1

Adopted from Roemer (2006).

Furthermore, Gundlach and Cadotte (1994) and Kumar, Scheer and Steenkamp (1995) concluded that customer dependence has a positive link on relationship quality and performance due to the fact that the relationship is mutually beneficial and therefore both parties invest the time and resources necessary to make the relationship work. The managerial implications of dependency is thus to determine the organisational dependency with the partners in the relationship in order to fully understand the relationship and to create a win-win exchange. The dependence factor is therefore essential in mutually beneficial supplier–customer relationships as it gives a supplier the chance to improve service and capitalize on customised offerings to better meet customer needs (Jap, 1999).

2.6.2.2 Relationship benefits

Organisations are constantly in search of product, processes and technologies to broaden their product offering to the buyer (Morgan and Hunt, 1994). Ojasalo (2001) highlights the theoretical difference between firm and individual levels of benefits. Sweeney and Webb (2007) refer to these benefits to psychological benefits that, which include perceptions of reliability, empathy, support, understanding between parties, and psychological assurance in a business relationship. According to Wathne, Biong and Heide (2001), interpersonal relationships in B2B settings are vital due to the fact that

the relationships formed between contact personnel and buyers can become extremely personal over time. This concurs with the findings of Webster (1992) suggesting that organisations that deliver superior benefits are highly valued, in return, such relationships are preferred due to the fact that they increase profitability, satisfaction and product performance.

In addition, the supplier may offer benefits causing a reluctance to change. Benefits expected, include time, discounts, convenience, and improved decision making (Palmatier *et al.*, 2006). Morgan and Hunt (1994) describe more complex benefits which include product profitability, customer satisfaction, and product performance. These benefits positively influence the commitment between the organisation and the buyer. Tellesfen and Thomas (2005) suggest that dependence increases as the importance of the benefits increases, and as the obtainability of substitutes decreases, in turn the buyer's commitment to the relationship should also increase (Andaleeb, 2001).

2.6.2.3 Relationship investments

Any relationship investment by a supplier towards a buyer ought to impress the buyer (Hart and Johnson 1999). Relationship investment defines the interval, energy and resources that sellers spend on strengthening customer relationships. These investments spawn expectations that the seller would continue to offer or increase that level of service to the buyer (Ganesan, 1994). Kang and Ridgway (1996) state that buyers feel obliged to pay back the marketer's friendliness. Relationship quality, which eventually manipulates behavioural loyalty, could be a consequence of relationship investment (De Wulf *et al.*, 2001). The positive relationship between investment and RQ suggests that the buyer returns a seller's actions in term of the reciprocal action theory.

Relationship investment was not included as an antecedent in this investigation. The reasoning behind this decision is based on the fact that most Life Science organisations in South Africa subscribe to the South African Laboratory Diagnostic Association (SALDA) as well as to the South African Medical Device Association (SAMED). The code of practise of marketing of these products stipulate product features, contract negotiations, and sales terms, and these meetings should occur at the place of business. Furthermore, members may only give professionals branded promotional items of minimal value for the benefit of patients and not that of the

professional. Therefore, no resources, time or effort that is not to the benefit of the patients, may be conducted or undertaken by members of these associations (<http://www.salda.org.za/CodeOfEthics.aspx>).

2.6.2.4 Relationship age

Relationship duration can be defined as the duration of the relationship between the buyer and contact personnel or trading partners has existed. Doney and Cannon (1997) suggest that this factor leads to an increase in confidence from a buyer's perspective. Galbreath (2002) describes the relationship duration between a firm and a buyers as an intangible assets. This includes the value contained within: relationships with customers, employees, partners and suppliers. Customers measure the future value of the relationship, where the benefits from the supplier are weighted against the switching costs. This biased valuation depends primarily on his/her expectation and quality of the transaction experience.

Bolton (1998) concludes that customers, who have former experience with an organisation, consider their cumulative customer experience satisfaction and weigh that more heavily than new information from other organisations. This in turn will cause the buyer to repeat purchase intentions in the future. These finding confirm the conclusions of Rust, Inman and Jia (1997) who found that the customer has an established distribution base, build on the quality of the transaction from that supplier. They state that 1) unfavourable customer service leads to decrease of preference for the product from this supplier 2) when the customer finds a product that meets their expectation, he/she is more likely to choose the same product in the future (whether it is most preferred or not) 3) the customer will not necessarily choose the brand with the highest performance. It is therefore necessary for an organisation to focus their attention on the initial stages of relationship building. If these initial contacts and trading experiences are deemed unsatisfactory, the relationship will not be long-lived.

Managerial implication stem from the understanding that there is a positive link between relationship duration and customer satisfaction, which is reliant on the customers' prior experiences with the organisation. Early identification of the relationship status will indicate whether the relationship is successful or in jeopardy.

2.7 The outcome of relationship marketing - Loyalty

RM Literature has focused their attention on customer-focussed outcomes, with the most popular outcome being customer loyalty. Loyalty is the customer's intent to continue the relationship with repeated future purchases. Palmatier *et al.*, (2006) define customer loyalty as a composite or multidimensional construct that combine intentions, attitudes and the sellers performance indicators. However, Oliver (1999) has questioned the concept of loyalty as customers with weak relational bonds might continue purchases with a supplier due to the high switching cost or the lack of time to evaluate an alternative. The sellers-focussed outcomes are off course sales and profit.

Researches in the field of loyalty have described two dimensions of loyalty: attitudinal and behavioural loyalty (O'Malley, 1998). Behavioural loyalty could be explained by the buying behaviour of customers (the rate of reoccurrence of spending with the same supplier) and it's positively association with loyalty (Dick and Basu, 1994). Attitudinal loyalty brings customer satisfaction into play as a gauge of loyalty by describing that satisfied customers often repurchase goods from the that selling firms.

Hennig-Thurau and Klee (1997) argue that relationship quality is positively related to recurring buying behaviour. Verification of this relationship stems from the findings of Macintosh and Lockshin (1997) that concluded that there is a positive relationship between satisfaction and relationship duration as well as purchase intentions. The dimension of trust could be verified by the findings of Moorman, Desphandé, and Zaltman (1993) who propose that committed consumers might have a greater tendency to repeat buying because of their need to remain consistent with their commitment.

Other recognised behavioural outcomes of relationship quality are recurring buying behaviour and progressive word of mouth (wom) communications (Hennig-Thurau *et al.*, 2002). Palmatier *et al.*, (2006) propose that buyers, who network more regularly with sellers, seem to increase their information with regards to their exchange partner, which decreases their hesitation about upcoming interaction and promotes trust. Furthermore, word of mouth (wom) communications illustrates the possibility of a buyer, positively referring another buyer to a supplying firm. This point towards the attitudinal and behavioural dimensions of loyalty described above.

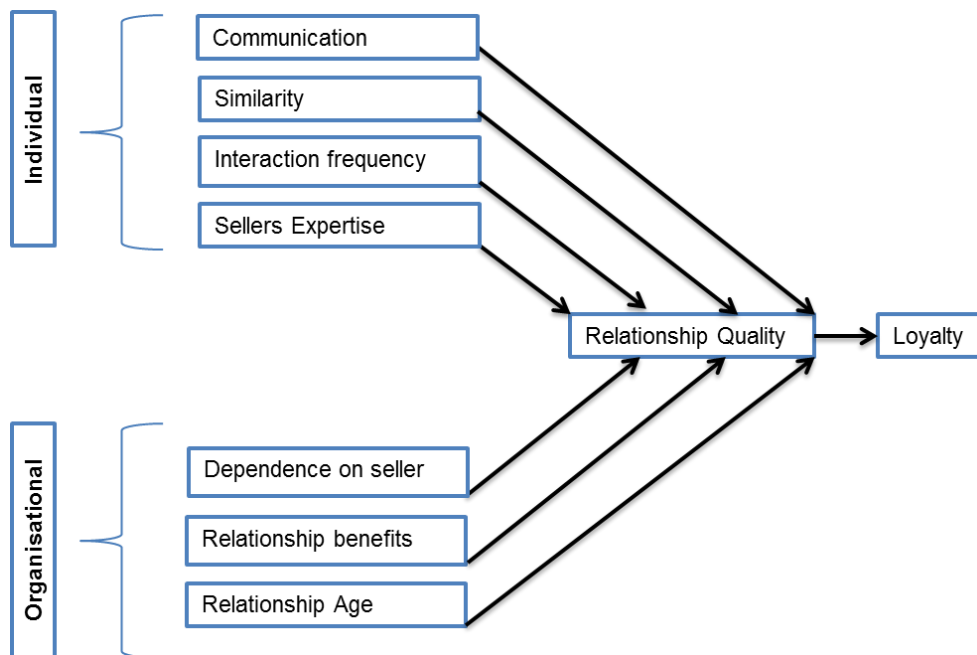
Sales organisations view customer loyalty, customer orientation and customer retention as a key issue. The tendency of buyers to approach multiple suppliers for a single product or service has become a threat for supplying organisation. The enforcement of multisource procurement has shifted the balance of power between the buyer and supplying firm. Case in point, multisource procurement leads to a reduction in profitability of the relationship for the selling organisation. Buying organisation engaging in multi-supplier sourcing strategies, feel that they have stronger bargaining power due to the increased competition among suppliers and their reduced risk (Swift and Coe, 1994). These developments in the sales arena are creating the need to nurture strong personal relationships between contact personnel and the buyers (Price and Arnould, 1999). Building relationships increases the commitment of the contact person to the buyer (Siders, George and Dharwadkar, 2001).

2.8 Conclusion

The primary purpose of this literature review is to provide a foundation of the current academic literature related to RM. Literature supports the fact that different antecedents influence the effectiveness of RM. The reviews list the main antecedents that influence relational exchange in the B2B context, but takes into consideration that these relationships can be divided into both organisational commitments and individual commitments.

The individual antecedents to RQ were identified as communication, similarity, interaction-frequency and seller expertise. Similarly, the organisational antecedents were defined as dependence on the seller, relationship benefits and relationship age. The literature reviewed in this chapter inferred the most successful organisations build relationships with their customers in order to fulfil their needs. By increasing the quality of the relationships the organisations establish long term relationships with leads to repeat purchase behaviour. Figure 2.1 indicates the construct that gives relevance to the hypothesis formulated in Chapter Three.

Figure 2.1 Construct indicating individual and organisational antecedents that influence relationship quality in the business-to-business context.



Chapter 3

Research Hypotheses

3.1 Introduction

Research entails the application and systematic investigation by using various methods in order to create or expand knowledge (Welman and Kruger, 2005). The literature reviewed in the previous chapter suggested that the most successful organisations build relationships with their customers in order to fulfil their needs. By increasing the quality of the relationship the organisation establish long term relationships with leads to repeat purchase behaviour. The construct proposed in Figure 2.1 illustrates that the researcher has studied the literature in the pursuit of testing the hypotheses stated below.

3.2 Formulated hypotheses

3.2.1 Hypothesis one - communication

Andersen and Guerrero (1996) concluded that communication is the link between organisations and individuals. It increases the amount of information that individuals have to their disposal while simultaneously increasing collaboration between parties (refer to section 2.6.1.1, p.18). Accordingly, it is hypothesised that:

H1: There is a positive relationship between the contact persons' communication and relationship quality in the business to business environment.

3.2.2 Hypothesis two - similarity

Similarity increase relationship benefits with the buyer as it promote customer dependency (Palmatier *et al.*, 2006). Baxter and West (2003) suggest that promotion of customer dependency leads to predictability on behalf of the buyer which stimulates communication between the parties involved (refer to section 2.6.1.2, p.18). Hypothesis two asserts that:

H2: There is a positive relationship between the contact persons' similarity to the buyer and relationship quality in the business to business environment.

3.2.3 Hypothesis three - interaction frequency

Regular buyer-seller contact builds cooperative intent between the two parties, leading to an increase in customer disclosure of needs-related information (Crosby, Evans and Cowles, 1990) as discussed in the literature review (refer to section 2.6.1.3, p.19). Accordingly, it is hypothesised that:

H3: There is a positive relationship between the interaction frequency between the contact persons and the buyer which influence relationship quality in the business to business environment.

3.2.4 Hypothesis four - seller's expertise

Relationship quality is affected by the seller's competence which influence the buyer's perceived trust in the salesperson (Crosby Evans, and Cowles, 1990). In addition, the aptitude of the seller to identify and group diverse client types while associating products and selling requirements has become vital (Román and Iacobucci, 2010). As discussed in the literature review (refer to section 2.6.1.4, p.19). Hypothesis four asserts that:

H4: There is a positive relationship between the contact persons' selling expertise and relationship quality in the business to business environment.

3.2.5 Hypothesis five - customer dependence

Cheng and Grimm (2006) conclude that dependence is essential to create stronger relationships between the buyer and seller. Sheer, Miao and Garrett (2009) propose that the supplier capabilities motivate loyalty through benefit and cost based dependence (refer to section 2.6.2.1, p.20). Accordingly, it is hypothesised that:

H5: There is a positive relationship between the customer dependence and relationship quality in the business to business environment.

3.2.6 Hypothesis six - relationship benefits

Webster (1992) proposes that organisations that deliver greater benefits are highly valued by their customers. These relationships are preferred due to the fact that they

increase profitability; satisfaction and product performance (refer to section 2.6.2.2, p.21). Hypotheses six state that:

H6: There is a positive relationship between the relationship benefits offered by an organisation and relationship quality in the business to business environment.

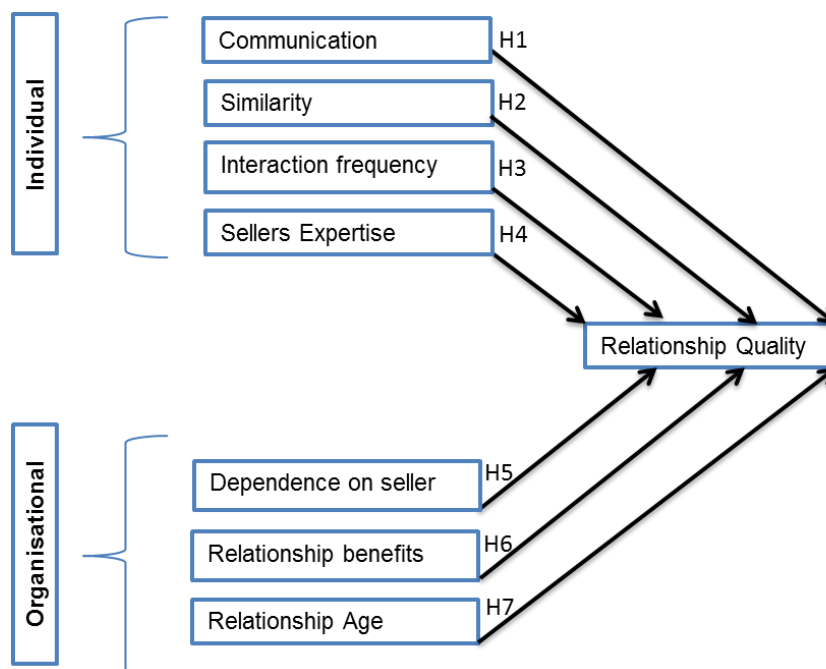
3.2.7 Hypothesis seven - relationship age

Doney and Cannon (1997) conclude that relationship age between the buyer and seller leads to an increase in confidence from a buyer's perspective (refer to section 2.6.2.4, p.22). Thus hypothesis seven states that:

H7: There is a positive relationship between the relationship age with the selling organisation and relationship quality in the business to business environment.

Figure 3.1 summarises the stated hypotheses and how they are viewed in the construct concluded after review of the literature in Chapter Two.

Figure 3.1 Construct indicating the hypotheses to determine the influence of the relationship antecedents on relationship quality in the Life Science industry.



Chapter 4.

Research Methodology

4.1 The research methodology adopted

Research consists of the application of numerous techniques and methods in order to construct scientifically obtained knowledge by using unbiased methods and procedures (Welman and Kruger, 2005). Brubaker and Thomas (2000) state that those who pledge to use qualitative data are inclined to belittle quantitative research described as number crunching. Their rationalisation is that quantitative research is unsuccessful in recognising differences and has the ability to generalise complex causes. In contrast, qualitative research offers a thorough description of the research topic. The vulnerability of the qualitative approach, however, is that it often deviates from the research plan. In addition, the researcher could view situations with a personal bias giving rise to experimenter bias which may influence the results.

The researcher adopted a quantitative research methodology by collecting data from buyers in the Life Science industry with regards to their individual antecedents as well as their organisational antecedents that influence relationship quality. The goal of the research was to describe the cause and effect and therefore the quantitative research approach was more suited for this study. In addition, the researcher did not deviate from the research plan and summarised data by means of statistical laws. Surveys conducted that pose close-ended questions generally make use of quantitative data as coding is used to analyse results. The Life Science industry was chosen as the scope of the study due to the fact that Alejandro *et al.* (2011) alluded to the fact that the most critical antecedents in relational exchange may be industry specific.

4.2 Research design

A research design is preparation according to which one obtain research participants and collect information from them (Welman and Kruger, 2005). The exploratory approach was used in conducting this study. The deductive research approach was followed where a research strategy was designed to test the research objectives

(Saunders, Lewis and Thornhill, 2003). Hypotheses were formulated as the research objectives were reasoned to be too broad in scope.

An on-line e-mail survey was used to gather data to test the formulated hypotheses stated in Chapter Three. The online survey strategy was associated with the exploratory approach and is considered a more popular strategy in business and management research (Saunders, Lewis and Thornhill, 2003). The researcher was aware that the graphic appeal of the questionnaire and the simplicity with which it could be answered might influence the response rate (Dillman, 2007). Therefore the response rate was enhanced with a personalised message in which the respondents were personally greeted. A follow-up of non-responses enhanced the response rate. A 2012 company database within the Life Science sector was used to sample the appropriate population, and a total 192 respondents from 66 different organisations completed the questionnaire.

The advantages for adopting the online survey strategy as described by Denscombe (2007) include:

- Wide and inclusive coverage of the target population.
- The online surveys are based on responses from buyers within the Life Science sector. However, there is always the likelihood that respondents will not co-operate. By using an online survey method it would be possible to determine the non-responses rate.
- Online surveys allow the researcher to receive completed questionnaires. This method ensures control over data capturing and minimise the effect of human error in the process of data collection.
- Surveys lend themselves to quantitative data analysis.
- The online survey approach was most economical in terms of costs and time. It reduced the turnaround time between sending and receiving a completed response. In terms of the collection of the data, no travelling expenses were incurred.

The disadvantages of adopting an online survey strategy as described by Denscombe (2007) include:

- Depth and detail of the data. The data collected by means of a close-ended questionnaire might overlook detail or depth as in qualitative investigations on the topic.
- Sample Bias. There is a danger that researchers that do not have access to the internet might be excluded from the population when surveys are conducted. This may produce results not based on a representative sample.
- Accuracy of responses. The survey approach limits the extent to which the researcher can check on the accuracy of the responses.
- The ease of ignoring the request to complete the online survey.

4.2.1 Target population and sampling frame

Fallik and Brown (1983) describe the population/universe as a collection of people, groups or objects that we are interested in studying. In terms of the research problem, the population was defined in the context of organisations that use contact personnel to call on buyers and thereby establishing relationships within the Life Science industry. The population was the buyers that are regularly visited by contact personnel on behalf of the different organisations in the Life Science industry. The sampling frame could be defined as all the researchers and buyers, represented on the 2012 database of the organisation in trade within the Life Science industry. There is a danger that the use of this particular sampling frame might not represent all buyers in the industry or be out of date.

4.2.2 Sampling

Non-probability sampling method was applied due to the fact the database of buyers and customers might not represent the entire research population. The researcher was unaware of the number of people that make up the entire population. The convenience

sampling technique was selected as a database of contacts within the industry was available to the researcher.

The sample size selected in this research was depended on the number of relationship antecedents, relationship mediators and factors of long term orientation presented in the proposed construct (Figure 3.1). Statistical procedures were used to calculate the specific sample size necessary in order to achieve accurate results. As online survey rarely achieves a response from every contact and the response would likely have been low, 3209 respondents were initially targeted, however only 120-200 responses were needed for statistical analysis.

4.2.3 The research instrument

A structured online questionnaire was used to collect data from buyers, requesting them to respond to close ended questions. Thus the respondents were given specific limited alternative responses and asked to choose the one closest to his/her viewpoint. This data was then coded and analysed. A Likert-type rating scale with even rating choices was used to rate the buyer's responses. Using a scale of 1 to 4 as opposed to 1 to 5 prevents a person from taking a non-committal or middle-of-the-road approach, i.e. a score of 3 from a 1 to 5 scale. The randomised response technique (RRT) was used to improve the accuracy of answers to the questions. Each questionnaire was digitally randomised to increase the validity of the data. While not recognisable to the respondents the questionnaire consisted of eight sections as seen in Appendix 1.

- The first section contained questions that relate to antecedents that affect the individual–individual relationship and how they are weighted by the buyer in the Life Science industry.
- The second sections contained the questions that determine antecedents that affect the individual-firm relationship and how they are weighted by the buyer in the Life Science industry.
- The last section contained the questions that determined the link between the relationship quality by examining trust commitment and satisfaction as the dimensions of RQ.

4.2.3.1 The questionnaire

The validity and reliability of data collected depend to a degree on the arrangement of the questions in the questionnaire, the design of the questions, and the rigidity of the pilot study conducted. A valid question would enable accurate data to be collected. Saunders, Lewis and Thornhill (2003) suggest that when designing individual questionnaires researchers should:

- Adapt questions used in other questionnaires or
- They create their own set of questions.

The researcher adopted and adapted questions used in the questionnaire presented in Appendix 1. Table 4.1 indicates the sources from literature used to adapt and adopt the questions presented in the final questionnaire.

Table 4.1 Indication of the literature sources used to construct the research instrument. The questions were adapted and adopted in the design of the final questionnaire.

Dependent and independent variable	Adapted and Adopted
Communication	Anderson and Weitz, 1992 Morgan and Hunt 1994
Similarity	Doney and Cannon , 1997 Vatanasombut <i>et al.</i> , 2008
Interaction frequency	Doney and Cannon , 1997
Sellers expertise	Doney and Cannon, 1997 Sichtmann, 2007
Dependence on supplier	Hibbard, Kumar and Stern, 2001
Relationship benefits	Sweeney and Webb, 2007
Relationship age	Doney and Cannon, 1997
Relationship quality	Hibbard, Kumar and Stern, 2001 Alejandro <i>et al.</i> , 2011

4.2.4 Pilot study

A pilot study was conducted in order to estimate and improve the questionnaire with the aim to refine the study design prior to surveying the entire sampling frame defined.

The pilot study was also conducted to ensure that there will be no problems in recording and collecting data (Saunders, Lewis and Thornhill, 2003).

The small sample selected (n =10), represented the total population and formed part of the main survey. This sample was instructed to:

- Remark on the layout and attractiveness of the questionnaire.
- Comment on the clarity of the questionnaire and instructions provided.
- Comment on the ease of completing the questionnaire online.
- Comment on the simplicity of the questions and ease of interpretations. Point out questions that are considered to be vague and unclear.
- Note the time that it took to complete the questionnaire.

4.3 The research process

A good response ratio as defined by Saunders, Lewis and Thornhill (2003) is deepened by the recipient being motivated to answer the questionnaire and to complete the questionnaire. The entire database was surveyed and an e-mail covering letter was constructed to outline the purpose of the research and questionnaire.

The e-mail containing the link to the questionnaire was e-mailed on the 8th July 2012. Appendix 2 indicated the detail of the covering letter sent to the potential respondents. The researcher sent a reminder e-mail to non-respondents as a reminder. The final cut-off date was 30th July 2012.

4.4 Data analysis

4.4.1 Descriptive statistics

Descriptive statistics was applied to quantitatively condense the information about the relationships studied, the sample and the observations made. This was used as entry level analysis to establish whether there is any association between the antecedents and relationship quality. After the establishment of positive relationships, further

statistical methods were applied to determine the strength of the relationships between the antecedents and relationship quality.

The descriptive statistics discussed below were used in the analysis.

- The Mean is calculated by summing the values of a variable for all observations and then dividing by the number of observations (Norusis, 2005). This describes the central tendency of the data.
- The Variance is calculated by finding the squared difference between an observation and the mean, summing for all cases and then dividing by the number of observations minus one (Norusis, 2005). It shows the relation that a set of scores has to the mean of the sample. This describes the dispersion of the data.
- The Standard Deviation is calculated as the square root of the variance (Norusis, 2005). This describes the dispersion of the data. Since Standard Deviation is a direct form of Variance, it will be used in place of the latter when reporting.
- Skewness is a measure of symmetry of a distribution; in most instances, the comparison is made to a normal distribution (Hair, Black, Babin, Anderson, and Tatham, 2006). Variables with skewness higher than 2 should be avoided.

4.4.2 Reliability and validity

Hair *et al.*, (2006) state that reliability is considered an evaluation of the degree of consistency between various examinations of a variable. The Cronbach's Alpha is the reliability coefficient which is used to assess the reliability of the complete scale. In general the lower limit for Cronbach's Alpha is 0.70, although this may decrease to 0.60 in exploratory research (Hair *et al.*, 2006; Robinson, Shaver, and Wrightman, 1991a; and Robinson, Shaver, and Wrightman, 1991b). Cronbach's Alpha will normally increase as the inter-correlations among test items increase, pointing towards internal consistency. Cronbach's alpha can range in value between zero and one.

Cronbach's alpha was used to measure the individual- and firm-level antecedents independently and combined against RQ. Hereby determining if the antecedents are reliable to the average used in order to correlate RQ and customer loyalty.

Validity establishes the level to which a measurement instrument in reality measures what it intends to measure. Hair *et al.* (2006) indicate that validity has various forms of which the most generally accepted forms are convergent, discriminant, nomological, content, and construct validity.

- Convergent validity assesses the degree to which two measures of the same concept are correlated. This will be determined through a factor analysis for each instrument. The researcher scrutinised the factor loadings in order to improve the validity. Hair *et al.* (2006) recommend that all factor loadings must be statistically significant. In addition, the standardised loading estimates should be higher than 0.5, but more accurately higher than 0.7 to assume that convergent validity is present.
- Discriminant validity is the degree to which two conceptually similar concepts are distinct. High levels of multicollinearity between constructs are a gauge of a lack of discriminant validity. The researcher investigated the limits presented in Table 5.18 to conclude that there was not a lack of discriminant validity (Kerlinger and Lee, 2000).
- Nomological validity refers to the extent that the scales of each construct make accurate calculation of the other concepts in a theoretically based model.
- Content validity assesses the association between individual items and the concept. The purpose is to guarantee that the choice of scale items spreads beyond experimental problems to include theoretical and practical considerations.
- Construct validity is the degree to which variables actually correspond to the theoretical underlying constructs that it is planned to measure. Factor analysis was used to investigate this phenomenon.

4.4.3 Exploratory factor analysis

Hair *et al.* (2006) define factor analysis as an interdependence technique, with the primary purpose to describe the underlying structure among the variables in the analysis. Norusis (2005) suggests that it is a statistical technique used to identify a reasonably small number of factors that explain observed correlations between variables.

Factors Analysis was used to measure variability in a set of antecedents in order to establish how these antecedents influence RQ.

4.4.4 Spearman's rank correlation

Correlation analysis is a test of statistical dependence used to determine the strength of relationships. McDaniel and Gates (2006) define it as the testing of the extent to which adjustments in a single variable are associated with adjustments in another. Thus it is a determination of the relation between two or more variables. Spearman's rank correlation was used to assess the ordinal data to determine the closeness of fit between the antecedents and RQ. The correlation analysis was used as an additional investigative technique to confirm the results of the multivariate linear regression which was used to test the hypotheses. Correlation coefficients can range from -1.00 to +1.00. A perfect negative correlation is represented by a value of -1.00, while a perfect positive correlation is represented by a value of +1.00. The Spearman correlation coefficient can be described as the Pearson correlation coefficient between the ranked variables. The correlation coefficient may be interpreted as follows (Table 4.2).

Table 4.2 The interpretation of the correlation coefficient used in Spearman’s rank correlation test.

Correlation Coefficient	Interpretation
-1.0 to -0.8	High
-0.8 to -0.6	Substantial
-0.6 to -0.4	Medium
-0.4 to -0.2	Low
-0.2 to 0.2	Very Low
0.2 to 0.4	Low
0.4 to 0.6	Medium
0.6 to 0.8	Substantial
0.8 to 1.0	High

4.4.5 Multivariate linear regression

Multivariate linear regression is a statistical method, used to determine the coefficients of the linear equation, involving one or more independent variables that best calculate the value of the dependent variable (Hair *et al.*, 2006). The researcher chose to make use of this statistical technique to test the hypotheses stated in Chapter Three. The construct presented in Figure 3.1 indicates that multiple antecedents (independent variables) affect RQ (dependent variable). The benefit of using this technique is that it tests both direct and indirect influences, however, the technique occurs in one direction from the independent to the dependent variable (Kerlinger and Lee, 2000). The construct shows that multiple antecedents mutually and simultaneously influence RQ. Furthermore, the researcher was interested to determine to which extent the antecedents influenced RQ. The relative strength of the antecedents was used to predict the relationship between the antecedents and RQ.

The adjusted R-Square (R^2) measured the proportion of the variance of the dependent variable about its mean that is explained by the independent variables. The coefficient can vary between 0 and 1. The greater the explanatory power of the regression equation, the better the prediction of the dependent variable (Kerlinger and Lee, 2000).

Another important area to consider is the collinearity (thus if a single independent variable is highly correlated with another independent variable). This impact reduces any single independent variable's analytical power by the extent to which it is

associated with the other independent variables. Hair *et al.* (2006). state that colinearity is measured through the statistics listed below.

- Tolerance – commonly used as a measure of colinearity. As the Tolerance value diminishes, the variable is more highly predicted by the other independent variables. A common cut-off threshold is a Tolerance value of 0.10.
- Variance Inflation Factor (VIF) – the opposite of Tolerance. Large VIF values indicate a high degree of colinearity. Inversing the common cut-off point of Tolerance, a value of 10 or more indicates high colinearity.
- Condition Index, a measure of relative amount of variance associated with a value, so a large condition index indicates a high degree of colinearity. The threshold value should usually be in a range of up to 30.

4.5 Elimination of bias

The researcher looked at similar studies as a way of gauging whether the response rate was acceptable. Sample selection error, which is caused by improper selection of the sample, was avoided by sampling the entire database to eliminate possible bias. There is always a danger with the use of a database that the sampling frame might be incomplete due to the survey not including respondent which did not have access to the internet. Auspice bias was eliminated by inviting the participant to partake in a GIBS research project. An objective e-mail address was used to target the respondents so that the influence of the researcher conducting the survey could be avoided.

Due to the fact that online research is easily ignored, a reminder was sent out to the respondents in order to eliminate non-response bias. The researcher consciously avoided double negative and double barrel questions as those questions could be biased. The researcher asked the respondents fixed, close ended questions which may have biased the findings towards the researcher, rather than the respondent's views. Order bias was also eliminated by digitally randomising the questions of each survey.

4.6 Assumptions

The researcher has made the following underlying assumptions in order to further this study:

- Relationship marketing is built on the assumption that relationships are advantageous for both customers and the organisation due to the fact that customer retention is financially viable in contrast to pursuing new customers (Verhoef, 2003; Reichheld and Sasser, 1990). Organisations pursue benefits in an attempt to develop a relationship with their customers, to create a competitive advantage.
- Increasing and continued customer relationships are vital to business performance. Successful execution of strategies is frequently determined by an organisations aptitude to grow its customer base (Verhoef, 2003; Bove and Johnson, 2000).
- The customer has the choice to select alternative suppliers and products (Rezaie and Elahi-Rad, 2007).
- A relationship can be built with any customer.
- The strength of relationships will grow provided the customer places greater importance on such relationships.

4.7 Limitations

Respondents are professional buyers of a company's customer data file, the possibility exist that the database could be outdated or incomplete. The response in business settings, other than the Life Science industry, might result in dissimilarities amongst buyers. Future research will need to verify the behaviour of buyers in other industries.

Alejandro *et al.* (2011) allude to the fact that the antecedents that affect relationship marketing are industry specific. This research is limited to the Life Science industry. The degree of generalisability of the findings in different business contexts may be

questioned. One can only generalise the findings once this study has been repeated in different industries within both developed and emerging economic settings.

Theron and Terblanche (2010) have recently described twenty three dimensions of relationship marketing, those most relevant to the industry of study must be selected. The antecedents selected are not conclusive to relationship marketing and can be extended to include additional antecedents or relationship mediators. Furthermore the outcome of relationship quality was not tested in this study.

It is entirely possible that some organisations avoid dependence on specific suppliers. Customers may prefer to be detached from their suppliers as they choose to procure offerings on the basis of the amount charged (price) and quality rather than on the basis of a long-lasting relationship. The mixture of customer orientation, product, and contact personnel forms the foundation of building, increasing and improving long-term customer relationships (Zineldin and Philipson, 2007).

Chapter 5.

Results

5.1 Introduction

Chapter Four delineated the research approach which was quantitative in nature. The research conducted entailed a systematic process of collecting and analysing information to increase the understanding of RM, and the antecedents that influence RQ. The data collected was analysed based on the research objectives and hypotheses presented in Chapter Three. This chapter presents the statistical results of the questionnaires that were returned by the respondents.

The respondent's anonymity was maintained throughout the questionnaire which enhanced the openness of responses. The respondents were not required to reveal any information whereby they could be identified by the researcher. The questionnaires were conducted by means of an online survey tool, 3G Research which provided the raw data for statistical analysis. SPSS 14.0 and AMOS 6 (SPSS Inc., 2005a) were used by the researcher to describe the findings. The statistical analysis consisted of two broad phases. The first phase of this chapter contained the descriptive statistical analysis describing the sample at hand. The second phase consisted of inferential testing. A total of 6% of the targeted respondents willingly took part in the survey. The final sample responses obtained by the researcher was 192 from 66 companies within the Life Science industry.

5.2 Data analysis

5.2.1 Descriptive statistics

Descriptive statistics was used as entry level analysis to present the multiplicity of the collected data in a coherent functional way (Bless and Kathuria, 1993). The descriptive statistics aided the researcher in gaining an understanding of the data. The mean, standard deviation and skewness was calculated for each question under review. The means and standard deviations of the variables were useful for error checking. An absolute value of the mean, lower than two and higher than seven, indicated that the variable could not be used in the analysis. The skewness indicates that there is a positive inclination towards the individual and grouped relationship antecedents

(Kerlinger and Lee, 2000). Histograms for each item were also scrutinised to determine any visual anomalies in the responses obtained. These histograms can be seen in Appendix 3.

Table 5.1 summarises the demographics of the respondents based on their level of education, ethnicity, age and the position which they fill within the Life Science industry. The average age of survey respondents were between 31 and 40 years with 60.7% being white. The majority of respondents have achieved a tertiary qualification (98.4%) filling positions of researchers and supervisors within the Life Science industry.

Appendix 4 indicates the frequency of the responses obtained for each question. The demographics section favoured the largest response rate while sections containing the antecedents ranged in completeness from 77% to 81%. The fully completed questionnaire yielded a 77% response rate.

The values of the means are disproportionately influenced by extreme data values in skewed distributions. Thus, the skewness of the distribution expresses the fact of the scores being or not being equally distributed on both sides of the central tendency. In such distributions, the means tend to get drawn towards the long tail of extreme data values. The frequency table indicate, that the majority of the questions have a negative skewness indicating that the questions were favourably answered i.e. a positive inclination towards relationship antecedents (Hair *et al.*, 2006). This is further supported by the fact that the majority of the questions experience higher than average mean values. The questions that did not fall within the acceptable level of skewness were omitted from the study.

Table 5.1 Summarised demographics to describe the characteristics of the respondents that completed the questionnaire. The demographic data collected indicated the respondent's ethnicity, the level of qualification, age and their current position which they fill within the Life Science industry.

Demographics	Ethnicity					Qualification				
	Black	White	Indian	Coloured	Other	Matric	Diploma	Degree	Master	Higher
Frequency	49	116	16	6	4	3	38	50	56	45
T	25.5%	60.4%	8.3%	3.1%	2.1%	1.6%	19.85	26.0%	29.2%	23.4%
Total	191					192				
Missing	1					0				
Demographics	Position					Age				
	Buyer	Technician	Researcher	Supervisor	Other	21-30	31-40	41-50	Over 51	
Frequency	4	22	67	44	55	34	76	41	40	
T	2.1%	11.5%	34.9%	22.9%	28.6%	17.7%	39.6%	21.4%	20.8%	
Total	192					191				
Missing	0					1				

5.2.2 Reliability

Reliability is considered to be a calculation of the degree of dependability amongst several experiments of a variable. A survey that is reliable will deliver dependable results when individuals are measured over and over again under near-identical conditions (Kerlinger and Lee, 2000). The constructs are better described as individual antecedents and organisational antecedents that affect RQ. The researcher used this measure of reliability and calculated the Cronbach's alpha coefficient to determine the internal consistency of the items in the questionnaire. Questions that were poorly phrased or sociably too acceptable were deleted in order to improve the internal consistency of the items in the scale. The Cronbach's alpha for each antecedent studied can be seen in the Table 5.2 to Table 5.9 to follow. The correlated communality value was used to prune the questions in order to improve the Cronbach's alpha as summarised in Table 5.6 and Table 5.7.

5.2.2.1 Antecedents of individual commitment

5.2.2.1.1 Communication

Focussing on the individual antecedent, communication, each question was evaluated separately to determine if the question was well or poorly phrased by the researcher. "We hesitate to give our supplier too much information" was omitted from further analysis, as its total correlation and communality value was found to be 0.093 as indicated in Table 5.2. The researcher increased the reliability of the questions relating to communication by removing this question to maximise the Cronbach's alpha and minimise the variance.

Table 5.2 Indication of the correlated communality value and Cronbach's alpha for each questions posed to measure the antecedent - communication.

Question	Correlated Item-Total Correlation	Cronbach's Alpha
Supplier X keeps us informed of new developments in the market.	0.424	0.614
Supplier X seeks our advice and counsel concerning marketing efforts.	0.495	0.519
Supplier X is willing to communicate their weaknesses and their strengths.	0.482	0.537
We hesitate to give our supplier too much information.	0.093	0.653

5.2.2.1.2 Similarity

Similarly the researcher evaluated the questions for similarity to determine if the question was well or poorly phrased by the researcher or understood by the respondents. “The sales person does not require an understanding of the working style of people in our region” was omitted from further analysis, as its communality value was calculated to be -0.008 as indicated in Table 5.3. The researcher increased the reliability of the questions relating to similarity by removing this question to maximise the Cronbach’s alpha and minimise the variance.

Table 5.3 Indication of the correlated communality value and Cronbach’s alpha for each questions posed to measure the antecedent - similarity.

Question	Correlated Item-Total Correlation	Cronbach's Alpha
We prefer it if Supplier X’s sales person is culturally similar to majority of the people in our organisation	0.387	0.517
It is preferable that sales people communicate in the language similar to the language spoken by majority of the people in our organisation	0.368	0.549
The sales person should share similar interest with people in our organisation.	0.458	0.416
* The sales person does not require a understanding of the working style of people in our region	-0.008	0.595

5.2.2.1.3 Interaction frequency

Focussing on the individual antecedent, interaction frequency, each question was evaluated separately to determine if the question was well or poorly phrased by the researcher. “We do not require a sales person to visit our place of business regularly” was omitted from the study as its communality value was calculated to be 0.160 as indicated in Table 5.4. The researcher increased the reliability of the questions relating to the interaction frequency by removing this question, to maximise the Cronbach’s alpha and minimise the variance.

Table 5.4 Indication of the correlated communality value and Cronbach's alpha for each questions posed to measure the antecedent - interaction frequency.

Question	Correlated Item-Total Correlation	Cronbach's Alpha
The sales person visits our place of business regularly	0.632	0.729
The sales people take a lot of time learning our needs	0.637	0.722
The sales people spend time getting to know our people.	0.645	0.714
* We do not require a sales person to visit our place of business regularly	-0.016	0.797

5.2.2.2 Antecedents of organisational commitment

5.2.2.2.1 Relationship age

Similarly the researcher evaluated the questions which form part of the organisational antecedents. Relationship age was analysed, to determine if the question was well or poorly phrased by the researcher or understood by the respondents. "The relationship age with supplier X does not impact our buying decisions" was omitted from further analysis, as its communality value was calculated to be 0.084 as depicted in Table 5.5. The researcher increased the reliability of the questions relating to relationship age by removing this question, to maximise the Cronbach's alpha and minimise the variance.

Table 5.5 Indication of the correlated communality value and Cronbach's alpha for each questions posed to measure the antecedent - relationship age.

Question	Correlated Item-Total Correlation	Cronbach's Alpha
We have known Supplier X for a long time	0.418	0.673
We have peace of mind when dealing with Supplier X	0.534	0.514
We find it easier to trust organisations with whom we have established long-term relationships	0.515	0.547
* The relationship age with supplier X does not impact our buying decisions	0.084	0.674

Table 5.6 and Table 5.7 show the reliability coefficient, namely Cronbach's Alpha, for the individual and organisational antecedents after the problematic questions were removed. The generally agreed upon lower limit for Cronbach's Alpha is 0.70, although

this may decrease to 0.60 in exploratory research (Hair *et al.*, 2006; Robinson, Shaver, and Wrightman, 1991a).

Table 5.6 Summary of the individual antecedent's Cronbach's alpha coefficient.

	N of Item	Cronbach's Alpha after adjustment
Communication	3	0.653
Similarity	3	0.600
Interaction frequency	3	0.795
Seller's expertise	4	0.785

Table 5.7 Summary of the organisational antecedent's Cronbach's alpha coefficient.

	N of Item	Cronbach's Alpha after adjustment
Dependence on seller	4	0.610
Relationship benefits	4	0.619
Relationship age	3	0.674

5.2.2.3 Relationship quality

Evaluations of the questions that measure the independent dimensions of satisfaction, trust and commitment were found to be reliable and therefore no questions were omitted from the analysis. The final results for the reliability analysis for the independent dimensions of RQ are reported in Table 5.8. Trust, commitment and satisfaction yielded Cronbach's Alphas of 0.820, 0.821 and 0.803 respectively based on three items each.

Table 5.8 Summary of the Cronbach's alpha coefficient of the independent dimensions of RQ.

	N of Item	Cronbach's Alpha
Trust	3	0.820
Satisfaction	3	0.821
Commitment	3	0.600

As previously stated in Chapter Two, the researcher adopted a conceptual approach where RQ is regarded a metaconstruct composed of three core dimensions (satisfaction, trust and commitment). Table 5.9 indicates that the internal consistency of the RQ yielded a Cronbach's Alpha of 0.878 based on 9 items.

Table 5.9 Summary of the Cronbach's alpha coefficient of RQ.

	N of Item	Cronbach's Alpha
Relationship quality	9	0.878

5.2.3 Validity

There is a direct correspondence between the nature of the object measured and the measuring instrument (Kerlinger and Lee, 2000). Validity testing was used to answer the question if the measuring instrument was measuring what the researcher thought it was measuring. Discriminant validity is the extent to which two theoretically comparable concepts are different (Hair *et al.*, 2006). Convergent validity refers to the extent to which measures (scale items) used to test a similar construct is related whilst discriminant validity evaluates the level to which two methods aimed to measure comparable but theoretically diverse constructs are unrelated (Netemeyer *et al.*, 2003).

High levels of multicollinearity between constructs are a gauge of a lack of discriminant validity. The values were well within limits ranging from 1.223-2.463 indicating that the levels of multicollinearity were low and therefore the researcher concluded that there was not a lack of discriminant validity as seen from the values presented in Table 5.18 (Kerlinger and Lee, 2000).

Furthermore, in order to indicate the convergent validity the factor loadings were scrutinised. Hair *et al.* (2006) recommend that all factor loadings must be statistically significant. In addition, the standardised loading estimates should be higher than 0.5, but more accurately higher than 0.7 to assume that convergent validity is present. Table 5.10 shows the factor loadings of the relationship antecedents.

5.2.4 Exploratory factor analysis

Norusis (2005) suggests that factor analysis it is a statistical technique used to identify a reasonably small number of factors. Factors analysis was used to measure variability in a set of antecedents in order to establish how these antecedents influence RQ. An Exploratory Axis Factor (EFA) with an orthogonal rotation of Likert scale questions from the questionnaire was conducted on data gathered from 192 participants. An EFA was used as the researcher had no expectations of the number or nature of variables and the research was exploratory in nature Williams, Onsmann and Brown (2010). Costello and Osborne (2005) suggest that exploratory factor analysis is preferred over principal component analysis. To enable a meaningful interpretation, certain guidelines as postulated by Hair *et al.* (2006) were followed. These are discussed below.

- Factor analysis should be performed on metric variables. In the case of the study, the 4-point Likert scale was appropriate.
- The researcher attempted to have a minimum of four variables for each proposed factor. All dimensions in this study are more than sufficiently above this level.
- The sample must have more observations than variables; whilst the minimum absolute sample size should be 100 observations. The total number achieved for the sample was 192.
- Maximise the number of observations per variable, with a minimum of four and at least 10 observations per variable.
- Bartlett's test of sphericity (p -value < 0.05) point to the fact that sufficient correlations exist between the variables.

- Measure of sampling adequacy (MSA) values must exceed 0.50 for both the overall test and each individual variable; variables with values less than 0.50 should be omitted from the factor analysis one at a time, with the smallest being omitted each time. Although 0.50 is considered the bare minimum, Hair *et al.* (2006) describe that particular cut-off point as ‘miserable’. Thus a stronger cut-off point of 0.6 will be enforced in the factor analyses of all questions within the questionnaire.

Table 5.10 Indication of factor loadings.

Antecedent	Loading
Factor 1: Communication	0.875
Factor 2: Similarity	0.290
Factor 3: Interaction frequency	0.759
Factor 4: Sellers expertise	0.785
Factor 5: Dependence on supplier	0.501
Factor 6: Relationship benefits	0.920
Factor 7: Relationship age	0.641

It was noted that the majority of the factor loadings reported in Table 5.10 were within the limit required for acceptable convergent validity. In line with the stipulated restrictions, most of the extracted communalities are above 0.3, indicating that a suitable amount of variance in each variable is accounted for. However, the validity of the similarity construct is questionable and falls below the limit (0.290). This was seen as a borderline statistic and kept in the analysis to verify the correlation results which resulted in similarity having no relationship with RQ (Table 5.15). Furthermore, a low level of association was found with the multivariate regression (Table 5.18).

Furthermore, factor analysis was carried to explore the relationships between the set of dimensions that form RQ. It was also used for the purposes of grouping data, where the dimensions of RQ were grouped to form one factor called RQ (Bless and Kathuria, 1993). Table 5.11 indicates the initial number of factors of which not all were retained. The Eigenvalues indicates the variances of the factors.

Table 5.11 Eigen values of the relationship antecedents.

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	3.819	54.554	54.554
2	0.921	13.157	67.711
3	0.738	10.540	78.251
4	0.526	7.511	85.762
5	0.394	5.634	91.396
6	0.326	4.650	96.046
7	0.277	3.954	100.000

Because the researcher conducted the factor analysis on the correlation matrix, the variables are standardised. Thus each variable has a variance of one, and the total variance is equal to the number of variables used in the analysis, in this case, seven. The researcher grouped the dimensions of trust, commitment and satisfaction to form one factor for RQ in the analysis presented below.

5.2.4.1 Relationship quality

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA) and Bartlett's Test of Sphericity were respectively conducted on the item to determine the intercorrelation matrix of the instrument. The KMO compares the differences of two antecedents: the antecedents-antecedent correlations and the partial correlation among the antecedents. KMO values range from zero to one, those closer to one correspond to the antecedent-antecedent correlation with stronger correlations amongst the items.

Bartlett's test of sphericity examined the variables in the population correlation matrix to determine if they are uncorrelated. If the observed significance level is significant at a 95% level, the hypotheses can be rejected concluding that the strength of the relationship among variables is strong. These tests were respectively conducted to determine the sampling adequacy and sphericity of RQ. The following points are critical:

- A statistically significant Bartlett's Test of Sphericity (p -value < 0.05) indicates that sufficient correlations exist among the variables to proceed.
- The Measure of Sampling Adequacy (MSA) provides an indication of the strength of the relationship items. The value of MSAs range from zero to one; values closer to one reflect more interrelationship. It was decided that MSA values must exceed 0.60 for both the overall test and each individual variable; variables with values less than 0.60 should be omitted from the factor analysis one at a time, with the smallest being omitted each time (Hair *et al.*, 2006).
- Variables ought to have communalities of greater than 0.50 to be retained in the analysis, however, values as low as 0.30 are generally accepted.

Table 5.12 KMO and Bartlett's test of the item intercorrelation matrix of relationship quality.

Kaiser-Meyer-Olkin measure of sample adequacy		
0.640		
Bartlett's test of sphericity	Approx. Chi-Square	218.991
	Df	3
	Sig	**0.000

** Significance at 0.05 level

Table 5.12 indicates that there are sufficient correlations (p value < 0.05) between the dimensions of trust, satisfaction and commitment to form a single factor, RQ. The KMO MSA overall value is sufficiently high to proceed further with the analysis (must exceed 0.60). It is concluded that the matrix is suitable for further analysis.

Table 5.13 KMO and Bartlett's test of the item intercorrelation matrix of the independent dimensions of relationship quality.

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1. Trust	2.257	75.247	75.247
2. Satisfaction	0.555	18.505	93.753
3. Commitment	0.187	6.247	100.00

Table 5.13 indicates the initial number of factors of which all were retained. The Eigenvalues indicates the variances of the factors.

Table 5.14 Factor matrix of relationship quality.

Item	Factor 1
Variable 1: Satisfaction	0.990
Variable 2: Trust	0.806
Variable 3: Commitment	0.597

Thus RQ can be used in subsequent analyses by one factor. Table 5.14 allow the researcher to conclude the strongest predictor of RQ to be:

1. Satisfaction
2. Trust
3. Commitment

5.2.5 Spearman's rank correlation

Correlation analysis was conducted in order to learn more about the nature of relationships between the antecedent's and RQ and expressing it through a correlation coefficient. The ranked correlation test was used by the researcher as it allowed the researcher to calculate the magnitude of the difference of the ranks of the variables depicted in Table 5.15.

The regression analysis aims at predicting the average value of the antecedents in terms of the value of RQ. Correlation analysis then intervenes in attempting to measure the discrepancy between the ideal situation and the observed situation.

All constructs yielded significant correlations ranging from low to substantial in their interpretations. The strongest antecedent correlation encountered was that between seller expertise and RQ, producing a substantial correlation, whereby 74.8% of the variance can be accounted for. The lowest, though still significant and interpreted as a low correlation, is that between similarity and RQ, whereby 27.1% of the variance can be explained.

Table 5.15 Pearson correlation indicates the strength of the relationships between the independent antecedents and relationship quality.

Correlations		Factor: Relationship Quality	Interpretation of correlation
Factor 1: Communication	Pearson Correlation	0.699	Substantial
	Sig. (2-tailed)	**0.000	
	N	153	
Factor 2: Similarity	Pearson Correlation	0.271	Low
	Sig. (2-tailed)	**0.001	
	N	149	
Factor 3: Interaction frequency	Pearson Correlation	0.703	Substantial
	Sig. (2-tailed)	**0.000	
	N	154	
Factor 4: Sellers expertise	Pearson Correlation	0.748	Substantial
	Sig. (2-tailed)	**0.000	
	N	155	
Factor 5: Dependence on supplier	Pearson Correlation	0.431	Medium
	Sig. (2-tailed)	**0.000	
	N	154	
Factor 6: Relationship benefits	Pearson Correlation	0.696	Substantial
	Sig. (2-tailed)	**0.000	
	N	154	
Factor 7: Relationship age	Pearson Correlation	0.724	Substantial
	Sig. (2-tailed)	**0.000	
	N	149	

** Significance at 0.05 level

5.3 Hypothesis testing

5.3.1 *Multivariate linear regression*

The purpose of the linear regression analysis is to determine degree of association between the independent antecedents and RQ. Table 5.16 indicates the results of the multiple regression technique. The regression output demonstration a model predicting 74.7% of variance in RQ.

Table 5.16 Standard multiple regression output.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.871 ^a	0.759	0.747	0.27115

Figure 5.1 indicates the probability plot with a relatively good fit between the predicted and observed relationships between the standardised residuals.

Figure 5.1 Normal probability plot of residuals. Dependent variable: RQ

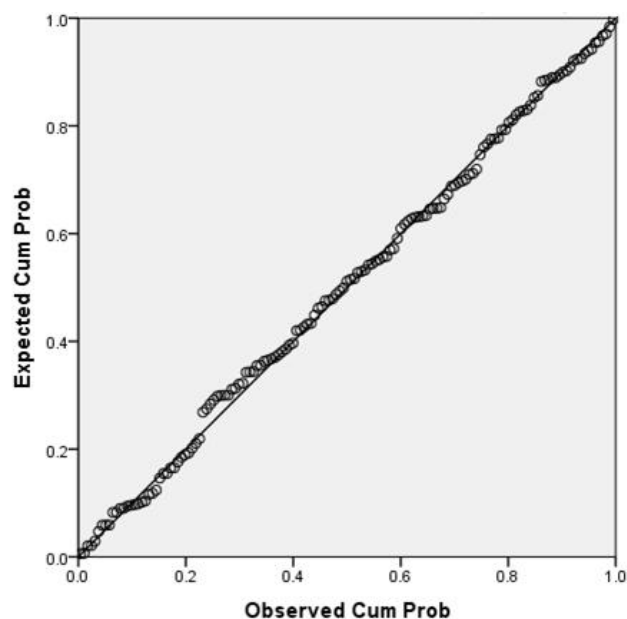


Table 5.17 presents the ANOVA test that explains the variability of the data in the construct. The results of the ANOVA indicate that the model is statistically significant ($p = 0.00$). The practical significance of the adjusted R^2 Cohen's effect was calculated using the equation proposed by Cohen (1992):

$$f^2 = R^2 / (1 - R^2)$$

The R^2 of 0.759 was above the Cohen cut off of 0.56. Cohen (1998) notes that a medium effect size should have an R^2 of above 0.25. A large effect is depicted by an R^2 above 0.4. The R^2 should fall above 0.4 signifying that at 0.759, the R^2 indicates a large effect.

Table 5.17 ANOVA output explaining the variability of the data and the significance of the model

Model		Sum of Squares	Df	Mean Square	F	Sig. p value
1	Regression	32.703	7	4.672	63.543	0.000**
	Residual	10.367	141	0.074		
	Total	43.070	148			

** Significance at 0.05 level

The regression coefficients for the seven independent variables are shown in Table 5.18.

Table 5.18 Multiple linear regression indicating the regression coefficients, significance and tolerance of the relationship antecedents.

Model		Unstd Coefficients		Std Coeffct	T	Sig. p value	Collinearity Statistics	
		B	Std. Error	Beta			Tol	VIF
1	(Constant)	0.387	0.148		2.611	0.010		
	Communication	0.081	0.053	0.101	1.517	0.132	0.388	2.579
	Similarity	0.001	0.034	0.002	0.040	0.968	0.818	1.223
	Interaction Frequency	0.169	0.043	0.227	3.891	0.000**	0.502	1.992
	Sellers Expertise	0.217	0.059	0.241	3.713	0.000**	0.406	2.463
	Dependence on Supplier	0.052	0.040	0.062	1.299	0.196	0.742	1.347
	Relationship Benefits	0.127	0.057	0.144	2.224	0.028**	0.410	2.441
	Relationship Age	0.278	0.050	0.310	5.616	0.000**	0.562	1.781

** Significance at 0.05 level

The Variance Inflation Factor (VIF) which is the opposite of tolerance indicates a high degree of colinearity. The tolerance values were all well within limit as they were found to be far below 10. Four of the antecedents were found to be statistically significant

($p \leq 0.05$). These antecedents as indicated in Table 5.18 are relationship age, seller's expertise, interaction frequency, relationship benefits.

The regression results presented in Table 5.18 were used to summarise the research findings and indicates whether the hypotheses formulated in Chapter Three could be accepted or rejected. Conclusions are shown in Table 5.19 ($p \leq 0.05$).

Table 5.19 Summary of hypothesis findings.

<i>Antecedent</i>	<i>Hypothesis Statement</i>	<i>Findings</i> ($p \leq 0.05$)
<i>Individual Antecedents</i>		
Communication	There is a positive relationship between the contact persons' communication and relationship quality in the business to business environment	Not supported
Similarity	There is a positive relationship between the contact persons' similarity to the buyer and relationship quality in the business to business environment.	Not supported
Interaction frequency	There is a positive relationship between the interaction frequency between the contact persons and the buyer which influence relationship quality in the business to business environment.	Supported
Sellers Expertise	There is a positive relationship between the contact persons' selling expertise and relationship quality in the business to business environment.	Supported
<i>Organisational Antecedents</i>		
Dependence on supplier	There is a positive relationship between the customer dependence and relationship quality in the business to business environment.	Not supported
Relationship benefits	There is a positive relationship between the relationship benefits offered by an organisation and relationship quality in the business to business environment.	Supported
Relationship age	There is a positive relationship between the relationship age with the selling organisation and relationship quality in the business to business environment.	Supported

5.4 Conclusion

The aim of this chapter was to report the findings so as to answer the hypotheses formulated in Chapter Three, which were obtained by the methodology described in Chapter Four. Descriptive statistics indicated that the majority of the survey questions fell within the acceptable levels of skewness. Mean values highlighted positive sentiments toward the bulk of the antecedents with the exception of similarity and dependence on the seller. The reliability and validity was assessed by means of Cronbach's Alpha. Weak questions were viewed as a limitation of this study and were omitted from analysis. Correlations were used to determine the degree to which changes in one variable are associated with changes in another. It was found that all relationships tested had a significant level of association although the validity of similarity can be questioned. Multivariate linear regression was used to determine the degree of association between the antecedents and RQ and to test the hypotheses formulated in Chapter Three. The individual antecedent, Seller's expertise and interaction frequency had a significant effect on RQ. Similarly, the organisational antecedents, relationship benefits and relationship age, had a significant influence on RQ. The results of this chapter is further elaborated on and discussed in Chapter Six.

Chapter 6.

Discussion

6.1 Introduction

In the previous chapter, various statistical procedures were carried out and observations were made. The results of the basic descriptive statistics, reliability analyses, factor analyses, correlations and multivariate linear regression were presented. The focus of this chapter is interpreting the result in order to meet the objectives and hypotheses described in Chapter Three. These research findings are discussed and related to the literature review presented in Chapter Two.

The research findings are aimed at building exiting knowledge in the relationship marketing field. The study seeks to determine the importance of organisational commitment and individual commitment in improving relationship quality within the Life Science industry. This is achieved by focusing on the individual antecedents that form individual commitment, consisting of antecedents such as communication, similarity, interaction frequency and the seller's expertise. Similarly, it determines the buyer's commitment to the organisation which consists of antecedents such as dependence on seller, relationship age and relationship benefits. Subsequently it seeks to determine the effect of these relationships on the buyer's relationship quality.

6.2 Review of research objectives

The third objectives of this thesis states that:

The aim is to investigate the effect of individual-individual and individual-firm relationships on the buyer's relationship quality in the Life Science industry.

The hypothesis developed in Chapter Three referred to seven independent variables (relationship antecedents) and three dimensions of the dependent variable (relationship quality). Results and findings of the hypotheses testing for each variable are discussed in turn below.

6.3 Interpretation and discussion of results

6.3.1 Descriptive statistics

Analysis of the respondent overview (refer to Table 5.1) indicates a good spread of respondents across all levels of qualification and age groups within the Life Science industry. The majority of respondent had a tertiary qualification (78.5%) in the form of a university degree with the mode for age peaking between 31 and 40 years of age. Furthermore, it was noted that 60.4% of the respondents that participated in the survey was of Caucasian ethnicity. Although the demographic statistics were not used to study the objectives and hypothesis, it was a good indicator of the respondents and the position they fill within the Life Science industry. The demographic section indicated that 62% of the respondents were directly involved in buying decisions that are made on a day-to-day basis.

6.3.2 Individual antecedents

6.3.2.1 Hypothesis one - communication

Account managers or sales personnel play a critical role in the relationship with buyers (Alejandro *et al.*, 2011). Communication refers to the formal and informal sharing of information between the buyer and the contact person which helps to shape expectations and educate customers within the B2B context. Results from this quantitative studies demonstrated that the scale showed adequate reliability (refer to Table 5.2 and Table 5.6). One question exhibited a low reliability coefficient and was omitted from the study (Table 5.6). The removal of this item increased the discriminant and convergent validity, thus meeting the requirements of researchers such as De Jong, Steenkamp, Veldman (2009) to ensure that scales developed in one culture are applicable to other cultures and contexts. The assessments of multicollinearity and common method variance suggested that there were no areas for concern.

The hypothesis presented in Chapter Three stated that there is a positive relationship between the contact persons' communication and relationship quality in the Life Science industry. Following the logic of consequences, the hypothesis was not supported. The correlation analysis presented in Table 5.15 indicated that there is a substantial relationship between the communication and RQ however the degree of association was not found to be significant (refer to Table 5.18).

These findings support the conclusion of Mohr, Fisher and Nevin. (1996) who stated that communication frequency and effectiveness of communication gives rise to perceptions of service quality. Furthermore, communication can be linked to quality marketing relationships as suggested by Palvia (2009). However, the degree of association of communication on RQ is deemed less essential than the level of expertise of the contact person communicating to the customer. Given the level of qualification of the buyers within this industry, the subject matter and expertise from the contact person is essential to increase collaboration and sharing between the parties involved (Mohr, Fisher and Nevin, 1996). It is critical that organisations realise that the informational exchange from contact personnel is deemed insignificant unless the seller's level of expertise promotes confidence of the buyer.

6.3.2.2 Hypothesis two - similarity

Similarity can broadly be defined as commonality in appearance or cultural similarities, values, and goals. Results from the quantitative studies demonstrated that the scale showed inadequate borderline reliability (refer to Table 5.3 and Table 5.6). The removal of one item increased the discriminant and convergent validity, however, this was not sufficient to meet the requirements of researchers such as De Jong *et al.* (2009) to ensure that scales developed in one culture are applicable to other cultures and contexts.

The hypothesis stated that there is a positive relationship between the contact persons' similarity to the buyer and relationship quality in the Life Science industry. The hypothesis was not supported despite the fact that inclusion of this factor was based on a borderline statistic. The correlation results presented in Table 5.15 found similarity to have a weak relationship with RQ which was further confirmed by the insignificant level of association presented in Table 5.18.

Respondents do not place significant value on the contact person's cultural similarity, but agree that the contact personnel must communicate in a language similar to the language spoken by the majority of the people within the organisation.

The researcher is of opinion that cross-cultural selling is well accepted in the Life Science industry in South Africa (SA) and selling techniques may be based on cultural adaptation in which the contact personnel alters their behaviours based on the cultural background of the customer and perceived information of the selling situation. Cross-

cultural selling might be a norm in SA due to the cultural diversity of the population. South Africans have been noted to be a 'rainbow nation' due to the fact that the SA population is one of the most diverse in the world. Furthermore there are eleven official languages in South Africa, namely Zulu, Swazi, English, Afrikaans, Ndebele, Xhosa, Sepedi, Venda, Southern Sotho, Tswana, and Tsonga. The advanced cultural and linguistic intelligence of buyers and sellers in this region may contribute to successful cultural adaptation rendering similarity insignificant (Earley and Ang, 2003).

These findings contrast the findings of Byrne and Griffitt (1969) suggesting that similarity is rewarding. The results indicate that the respondents were more inclined to language similarity which is similar to the findings of Baxter and West (2003) that more efficient communication leads to the reduction of uncertainty. However, the relationship is insignificant weighted against the other relationship antecedents studied. The researcher is of opinion that the strength of the relationship may be low due to the industry dynamics. Schmidt and Hunter (2000) state that highly intellectual individual have a high level of cultural intelligence which makes them capable of dealing in culturally diverse settings (Earley and Ang, 2003). As specialists within the Life Science industry, the respondents are more certain about their product requirements and seek to satisfy those needs. These respondents have the ability to effectively communicate their request to the contact personnel using cultural intelligence. The behavioural and motivational intelligence of both buyers and sellers within the industry deems similarity insignificant.

6.3.2.3 Hypothesis three - interaction frequency

Interaction frequency points toward the frequency of business contact and interaction intensity amongst the contact personnel and the buyer. The hypothesis presented in Chapter Three stated that there is a positive relationship between the interaction frequency and relationship quality in the business to business environment.

Results from the quantitative studies demonstrated that the scale showed adequate reliability (refer to Table 5.4 and Table 5.6). One question exhibited a low reliability coefficient and was omitted from the study (Table 5.6). The removal of this item increased the discriminant and convergent validity, thus meeting the requirements of researchers such as De Jong *et al.* (2009) to ensure that scales developed in one culture are applicable to other cultures and contexts. The assessments of

multicollinearity and common method variance suggested that there were no areas for concern.

Following the logic of consequences, the hypothesis was supported. The correlation analysis presented in Table 5.15 indicated that there is a substantial relationship between the interaction frequency and RQ. Furthermore, the degree of association between interaction frequency and RQ was found to be significant (refer to Table 5.18).

This finding corresponds with the findings of Crosby, Evans and Cowles (1990) suggesting that the customers' expectation of future contact with the sales person has a critical influence on relationship quality. Anderson and Weitz (1989) conclude that by increasing the frequency of visits to a customer the contact personnel have more behavioural information allowing the contact personnel to make informed predictions of the customers' needs and preferences. The findings of this study contrast the statement made by Palmatier *et al.*, (2006) that neither interaction frequency nor relationship age is a good driver of strong customer relationships. The study indicates that within the Life Science sector, both interaction frequency and relationship age has a significant influence on RQ.

The research finding strongly recommend selling techniques which include regular customer visits, regular needs analysis and personal attention. This creates the impression that the contact persons are more committed and co-operatively investing in the relationship with the customer. An increase in call frequency of contact personnel has a positive outcome on sales volume, perceived service quality and customer satisfaction in general (Román and Martin, 2008). In conclusion, regular buyer-seller contact creates cooperative relationships between parties, leading to an increase in customer disclosure of needs-related information.

6.3.2.4 Hypothesis four – seller's expertise

Seller expertise refers to the knowledge, experience, and the general competency of seller as a value-creating feature (Vargo and Lusch, 2004). Results from the quantitative studies demonstrated that the scale showed adequate reliability (refer to Table 5.6). No items were removed indicating that discriminant and convergent validity thus met the requirements of researchers such as De Jong *et al.* (2009), ensuring that scales developed in one culture are applicable to other cultures and contexts. The

assessments of multicollinearity and common method variance suggested that there were no areas for concern.

The hypothesis presented in Chapter Three stated that there is a positive relationship between the contact persons' selling expertise and relationship quality in the business to business environment. Following the logic of consequences, the hypothesis was supported. The correlation analysis presented in Table 5.15 indicated that there is a substantial relationship between the seller's expertise and RQ. Furthermore, the degree of association between the seller's expertise and RQ was found to be significant (refer to Table 5.18).

The findings confirm the findings of Crosby, Evans and Cowles (1990) suggesting that the seller's competence is a key determinant of the customer's perceived trust in the salesperson, thereby affecting the relationship quality (Crosby Evans, and Cowles, 1990). The research also suggests that seller expertise, as an antecedent controlled by contact personnel, has the greatest positive influence on RQ. This finding is similar to the finding of Palmatier *et al.* (2006).

Román and Iacobucci, (2010) conclude that the seller must be able to identify and group different client types, as well as their associated product and selling requirements. The ability to apply one's qualification and the ability to master the customer-qualification skills will increase long-term customer satisfaction. In these instances the contact personnel are perceived to be more trustworthy due to successful information communication.

Furthermore, the research finding confirms the findings of Vargo and Lusch (2004) suggesting that contact personnel with more experience and knowledge could cause a buyer to become more committed. As suggested by Saxe and Weits (1982) the contact personnel have the ability to use their expertise to customise their marketing skills, in order to assist the buyer to make purchasing decisions. The researcher concludes that competent seller's increase relationship capital to strengthen and maintain these relationships in the future. The findings highlight the importance of education to inexperienced or unskilled employees, so to increase value to the end user at each customer contact point of the organisation.

6.3.3 Organisational antecedents

6.3.3.1 Hypothesis five – dependence on seller

Customer dependence is defined as the degree to which partners provide valued resources for which there are a small amount of substitute products to supply (Emerson's, 1962). Results from the quantitative studies demonstrated that the scale showed adequate reliability (Table 5.7). No items were removed indicating that discriminant and convergent validity thus met the requirements of researchers such as De Jong *et al.* (2009), ensuring that scales developed in one culture are applicable to other cultures and contexts. The assessments of multicollinearity and common method variance suggested that there were no areas for concern.

The hypothesis presented in Chapter Three stated that there is a positive relationship between the customer dependence and relationship quality in the business to business environment. The hypothesis was not supported as the correlations show a medium relationship between dependence on seller and RQ but the degree of association was found to be insignificant.

The findings contrast the findings of Cheng and Grimm (2006), which concluded that dependence on the supplier is essential to create stronger supply chain linkages. Furthermore, the findings contradict the findings of Kumar, Scheer and Steenkamp (1995) which concluded that customer dependence has a positive link on relationship quality and performance. However, the findings are similar to the findings of Palmatier *et al.* (2006) who concluded that dependence on seller has a notably small effect on relational mediators.

According to the dependence distribution of Roemer (2006), suppliers and buyers in the Life Science industry display either supplier dependence or symmetric independence. The symmetric independence refers to relationships with low dependence on the side of both the buyer and supplier. In these relationships both the buyer and seller find it easy to switch to alternative suppliers when a problem arises. Alternatively, the results point to supplier dependence in which an asymmetrical relationships exists. Here opportunism occurs on the buyer's side where they have the power to exploit supplier (Gundlach and Cadotte, 1994). The findings suggest that the buyers are highly flexible, leading to the conclusion that sales strategies in this industry must be short-termed. The results suggest the relationships within the Life Science

industry are not mutually beneficial and therefore parties are reluctant to invest too much time or resources to make the relationship work.

One explanation for these relationships might be the fear that suppliers could take advantage of the buyer's dependence. Therefore, the buyers have the tendency to approach multiple suppliers for a single product or service. This enforcement of multisource procurement leads to shifting of the balance of power between the buyers and supplying firm. Buying organisation engaging in multi-supplier sourcing strategies, feel that they have stronger bargaining power due to the increased competition among suppliers (Swift and Coe, 1994). This leads to a reduction in profitability of the relationship for the selling organisation.

6.3.3.2 Hypothesis six – relationship benefits

Sweeney and Webb (2007) refer to relationship benefits as psychological benefits which include perceptions of reliability, empathy, support, understanding between parties, and psychological assurance in a business relationship. However, relationship benefits can also be presented in the form of financial and social benefits that impact relationship quality. Results from the quantitative studies demonstrated that the scale showed adequate reliability (refer to Table 5.7). The assessments of multicollinearity and common method variance suggested that there were no areas for concern.

The hypothesis presented in Chapter Three stated that there is a positive relationship between the relationship benefits offered by an organisation and relationship quality in the business to business environment. The hypothesis was supported indicating that relationship benefits have a substantial influence on RQ (Table 5.15). Furthermore, the degree of association between these variables was found to be significant (Table 5.18).

Benefits valued by the customers include time, discounts, convenience, and improved decision making abilities (Palmatier *et al.*, 2006). Dependence on the supplier increases as the importance of the benefits increases, and as the obtainability of substitutes decreases. Moreover, the buyer's commitment to the relationship should also increase (Andaleeb, 2001). The results coincide with the findings of Webster (1992) suggesting that organisations that deliver superior benefits are highly valued. Webster concludes that such relationships are preferred due to the fact that they increase profitability, satisfaction and product performance. In addition benefits offered by the supplying organisation may cause a reluctance to switch to alternative suppliers.

Morgan and Hunt (1994) describe more complex benefits which include product profitability, customer satisfaction, and product performance. These benefits positively influence the commitment between the organisation and the buyer.

6.3.3.3 Hypothesis seven – relationship age

Relationship duration can be defined as the length of time that the relationship between the buyer and contact personnel or organisation has existed. Results from the quantitative studies demonstrated that the scale showed adequate reliability (refer to Table 5.7). The assessments of multicollinearity and common method variance suggested that there were no areas for concern.

The hypothesis as presented in Chapter Three stated that there is a positive relationship between the relationship age with the selling organisation and relationship quality in the business to business environment. The hypothesis was supported as the correlation results show a substantial relationship between relationship age and RQ (Table 5.15). Furthermore, the degree of association between these variables was found to be significant (Table 5.17).

The results support the findings of Doney and Cannon (1997) suggesting that relationship age leads to an increase in confidence from a buyer's perspective. Bolton (1998) explain this increase in confidence as a result of previous experiences with an organisation in which the customer consider their cumulative customer experience and satisfaction and weigh that more heavily than new information from other organisations.

The findings suggest that customers within the Life Science industry have an established distribution base, and build on the quality of the transactions from their suppliers. Rust, Inman and Jia (1997) conclude that within the context of relationship age 1) unfavourable customer service leads to decrease of preference for the product from this supplier 2) when the customer finds a product that meet their expectation, he/she is more likely to choose the same product in the future (whether it is most preferred or not) 3) the customer will not necessarily choose the brand with the highest performance. It is therefore necessary for an organisation to focus their attention on the initial stages of relationship building. If these initial contacts and trading experiences are deemed unsatisfactory, the relationship will not be long-lived.

6.3.4 Relationship quality

Gummesson (1987) suggest that relationship quality (RQ) can be defined as the quality of interaction between a buyer and a supplier. The researcher adopted a conceptual approach where relationship quality is regarded as a meta-construct composed of three core dimensions, namely satisfaction, trust and commitment. Table 5.12 indicated that there are sufficient correlations between the dimensions of trust, satisfaction and commitment to form a single factor, Relationship Quality. The factor loading presented in Table 5.14 allowed the researcher to conclude that the strongest predictor of relationship quality in order of importance is satisfaction, trust, and then commitment.

When looking at the dimensions of RQ, Jap (2001) suggests that satisfaction boosts buyer-seller commitment, hereby playing a profound role in relationship outcomes such as long-term B2B relationships. However, satisfaction also display the commitment levels as a buyer's satisfaction with a contact person has been renowned for relationship development (Longfellow, 1995), and product satisfaction (Oliver and Swan, 1989).

Trust represents the perceived credibility and care of an organisation or its contact personnel towards a buyer (Doney and Cannon, 1997). Both commitment and trust leads to efficiency, productivity and effectiveness of relationships (Morgan and Hunt, 1994). The findings suggest that increases in the seller's expertise and interaction frequency from the perspective of contact personnel and simultaneous increases in relationship benefits and relationship age will result in building satisfaction, trust and commitment to increase relationship quality.

Relationship quality can thus be explained as the valuation of contact episodes between the customer and the supplier from different influences (Anderson and Narus, 1990). These findings coincide with those of Alejandro *et al.* (2011) suggesting that customers see different types of value being provided by contact personnel and the organisation. The research suggests that organisations need to support the efforts of contact personnel in providing value to customers.

6.3.5 Summary of the individual and organisational antecedents

The focus of this study was the identification of antecedents that affect the individual–individual relationship, and how they are weighted by the buyer. As well as the

identification of antecedents that affect the individual-firm relationship, and how they are weighted by the buyer. Furthermore, investigating the effect of these relationships on the buyer's relationship quality in the Life Science industry.

The preceding findings offer important insight of relationships between buyers and sellers in B2B contexts within the Life Science industry. The discussion indicates that relationship quality can be increased by simultaneously focussing on individual and organisational antecedents. The individual antecedents that significantly influence relationships in the Life Science industry, in order of importance, are the sellers expertise followed by interaction frequency. Similarly, the organisational antecedents, in order of importance, are the relationship age followed by relationship benefits. Overall, the age of the relationship followed by seller's expertise, interaction frequency and relationship benefits are the most effective relationship-building strategies across all elements of a relationship within this particular industry.

The study confirmed and contracted many relationships described in literature. The main difference between these studies is that Palmatier *et al.* (2006) combined 637 correlations from 111 independent samples, drawn from 94 different manuscripts, across industries. This study focussed primarily on the Life Science industry. The possible dissimilarities found between the two studies, highlight the importance of the relationship evaluation at the level of the industry. The researcher is of opinion that each sector would yield similar relationships that influence the quality of the relationships formed. However, the predictors and extent of these relationships will differ greatly from industry to industry.

Chapter 7

Conclusion

7.1 Introduction

This chapter aims to summarise the findings and consider the theoretical and managerial implications of relational antecedents on relationship quality. Thereafter the suggestions for future research and limitations of the research are addressed.

From the discussion it is clear that both individual commitment and organisational commitment simultaneously influence relationship quality. Furthermore, the findings proof that the influence of these antecedents are industry specific.

The conclusions reached are reached by keeping the aim and objectives of this study in mind to ensure that they are met. The aim was to investigate the role of contact personnel and the organisations, on relationship quality in the B2B context. These roles were investigated by means of obtaining insight from respondents in the Life Science industry.

The following *objectives* were set out and the corresponding conclusions were reached:

- *To examine the literature to determine the individual–individual antecedents that affect RQ and how they are weighted by the buyer.*

Literature reviewed suggests that communication, similarity, interaction frequency and seller's expertise are individual-individual antecedents, controlled by the account managers or sales personnel within organisation. As suggested by Tellefsen and Thomas (2005) these individuals think and act as individuals rather than expansions of their organisations. The results indicate that there is a substantial relationship between communication and RQ. The relationship between similarity and RQ was found to be weak while the relationship between interaction frequency and RQ was substantial. The results also indicated a substantial relationship between seller's expertise and RQ. In addition, the weighting of the antecedents are industry specific.

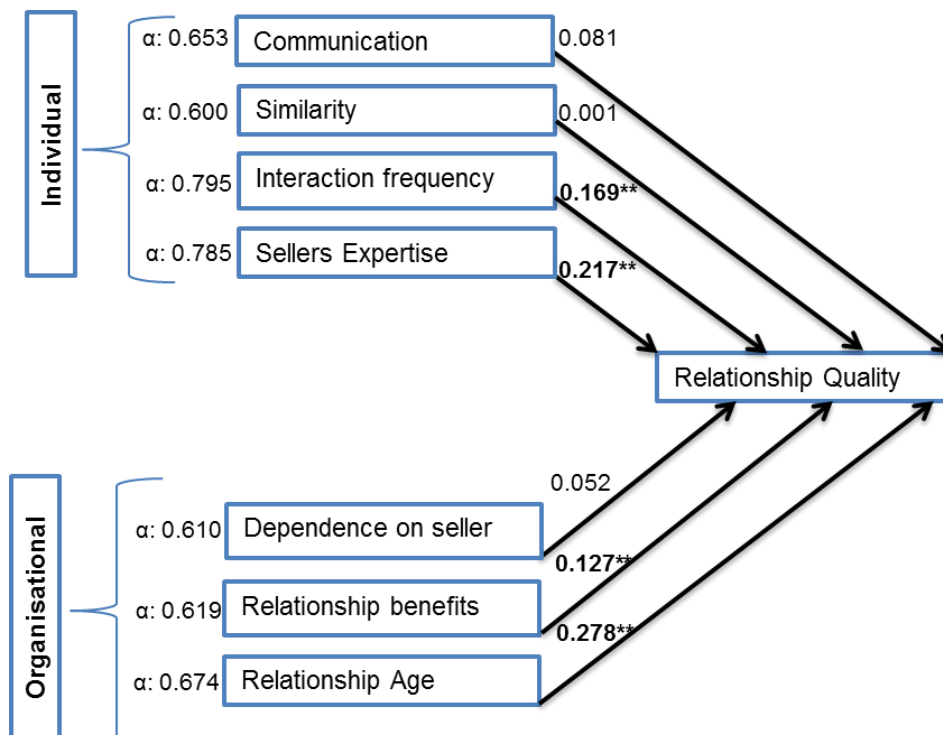
- To examine the literature to determine the individual–firm antecedents that affect RQ and how they are weighted by the buyer.

The conclusion reached is that dependence on seller, relationship age, relationship benefits and relationship investments are individual-firm antecedents, controlled by the selling organisation. The results indicate that there is a medium relationship between dependence on seller and RQ. The relationship between relationship benefits and RQ was found to be substantial. Similarly, the relationship between relationship age and RQ was substantial. In addition, the weighting of the antecedents are industry specific.

- Investigating the effect of these relationships on the buyer’s relationship quality.

Both individual and organisational commitment concurrently influences RQ. The age of the relationship followed by seller’s expertise, interaction frequency and relationship benefits are the most effective relationship-building strategies within the Life Science industry as summarised in Figure 7.1.

Figure 7.1 Antecedents with an indication of the relation to relationship quality in the Life Science industry.



α: Cronbach's alpha; ** Significance at 0.05 level.

7.2 Academic contribution

This research provides both an academic contribution to the relationship marketing field as well as a practical implication for managers and executives within organisations. The main contribution for academic purposes involves both confirmation and distinctions from hypothesised relationships. The dissimilarities found in this study may speak to the importance of the industry setting in which these relationships exist. Palmatier *et al.* (2006) combined 637 correlations from 111 independent samples drawn from 94 different manuscripts across industries. The possible distinctions found between the two studies, highlights the importance of the relationship evaluation at the level of the industry. Comparable research should be conducted in other environments to determine the role of the industry under evaluation.

Furthermore, this study has a distinctive contribution as it recommends that organisational and individual commitment literature be integrated. Based on this research findings both organisational and individual antecedents play a profound role in increasing relationship quality and building customer relationships. These commitment levels and antecedents cannot be viewed in isolation as they simultaneously contribute to successful marketing strategies. The study partially confirms the inferences made by O'Laughlin and Malle (2002) that individual relationships have a direct impact on financial outcomes. However, the impact made cannot be separated from the impact made by the organisation. If the organisation is relatively new in the industry and offers no relationship benefits to stimulate the organisational relationship, then the larger part of the relationship could be owned by the contact person.

The construct indicates that communication leads to the sharing of information, but the type of communication is more important than communications itself. The customer sees the benefit in the relationship, provided the seller has a high level of expertise. The value of the information shared and the frequency of communication increases relationship quality.

Cultural diversity of the population in study has an influence on the way in which buyers perceive contact personnel. Furthermore, highly intellectual individuals have a high level of cultural intelligence which makes them capable of dealing in culturally diverse settings. The level of intelligence and professionalism of scientists within this industry could possibly connect people within this environment making them less susceptible to diversity challenges.

Interaction frequency is a significant driver of RQ. The probability of future contact allows contact personnel the opportunity to gather behavioural information from the customer. This information can then be used to make informed predictions of the customers' needs and preferences.

Seller's expertise is the most important predictor of RQ. The ability to apply one's qualification could cause a buyer to become more committed which could increase long-term customer satisfaction. This relationship will strengthen as the contact personnel are perceived to be more trustworthy due to successful information communication.

Dependence on the supplier is a weak predictor of RQ. The balance of power seems to be held by the buyers in the Life Science industry. Asymmetrical relationship exists between the buyer and the supplier where opportunism occurs. This opportunism presents itself in the form of multi-supplier sourcing strategies. These strategies make the buyer feel that they have tougher bargaining power due to the increased competition among suppliers.

Relationship benefits have a significant influence on RQ. As the benefits from the supplier increase the need to have alternative suppliers, decrease. These benefits can present themselves in the form of time, discounts or even convenience. Organisations that provide greater benefits are valued higher than those organisations with a standard selling price.

Relationship duration is the strongest predictor of RQ. The findings suggest that customers within the Life Science industry have an established distribution base, and build on the quality of the transactions from their suppliers. Rust, Inman and Jia (1997) conclude that within the context of relationship age 1) unfavourable customer service leads to decrease of preference for the product from this supplier 2) when the customer finds a product that meet their expectation, he/she is more likely to choose the same product in the future (whether it is most preferred or not) 3) the customer will not necessarily choose the brand with the highest performance.

7.3 Managerial implications

The research is of specific value to managers who are responsible for increasing relationship capital within their organisations. The results help the organisation understand the effectiveness of relational exchange from an individual and organisational perspective. While the research focusses on the Life Science industry, the results do have implications for organisations in the B2B market, in which respondents are highly educated.

The Life Science organisations have diversified their product offerings but in doing so have become increasingly competitive. Organisations should focus their marketing efforts to portray the proficiency and capability of their contact personnel. The findings also highlight the significance of education to inexperienced or unskilled employees at customer contact point. In addition, the frequency of interaction between the contact person and seller creates a perception of commitment and the notion that both parties are co-operatively investing in the relationship. Therefore, frequent customer visits and product specific knowledge sharing has become a critical component to succeed.

Furthermore, the organisation will own a larger part of the exchange relationship with the customer if benefits such as time, discounts and convenience is included in the marketing strategies of the organisation. The role of the organisation is managing their customer exchange relationships to be more efficient in their daily dealings with the end user. This will allow the organisation to minimise the threat that contact personnel own exchange relationships and that they can move to competitor organisations.

Focussing on these particular antecedents will allow managers to improve their relationship quality with the customer which would assist in retaining the customer on a long-term basis. This may imply that teamwork amongst sales and marketing departments are vital to ensure a successful RQ with buyers. The relationship age as well as the customer's perception about the selling organisation has a large impact on relations quality. By increasing the relationship quality we could reduce costs to customers and increase customer experience, as stated Gilaninia, Almani, Pournaserani, and Mousavian (2011).

7.4 Limitations of the study

This research is limited to the Life Science industry. The degree of generalisability of the findings in different business contexts may be questioned. One can only generalise the findings once this study has been repeated in different industries within both developed and emerging economic settings. Thus future research will need to verify the behaviour of buyers in other industries. Furthermore, the respondents are customers and end-users of a company's data file, the possibility exist that the database could be outdated or incomplete.

The researcher would also suggest that more qualitative approaches are used to gain a full understanding of customer relationships with the company, operating in a defined industry. These studies might bring new antecedents to light which could broaden the existing knowledge base.

7.5 Suggestions for future research

Theron and Terblanche (2010) have defined twenty-three dimensions of relationship marketing. However, those most relevant to the industry of study must be selected. The antecedents selected are not conclusive to relationship marketing and can be extended to include additional antecedents or relationship mediators.

Future research might want to consider the use of other statistical technique to determine the extent of this effect between the antecedents and relationship quality. Structural Equation Modelling (SEM) could be used as a confirmatory approach to test the hypotheses. SEM simultaneously model between multiple and dependent constructs. The simultaneous analysis might allow linkages between the dependent and independent variables.

The outcome of relationship quality was not tested in this study. Future research may focus their attention on extending the construct to include customer and sellers focussed outcomes. The customer focussed outcomes may include expectations of continuity, word of mouth and customer loyalty. Sellers focussed outcomes in turn may include the seller's objective performance. In addition, research might also focus their attention on how these antecedents differ in importance when dealing in the b2c, or service industries.

Alternatively, future research may be directed towards the effects of relationship antecedents on consequences, of relationships at different commitment levels. Longitudinal research would add valuable insight as these relationships evolve over time.

The relation between relationship quality and profitability is also unclear. Future research may focus their attention on determining the return on investment (ROI) to indicate how profits are affected.

7.6 Conclusion

The value of the organisation's reputation equates to the relationship capital. However, the organisation as well as its personnel plays a critical role in relational exchange and the quality of the relationship that is built with the customer. Individual-individual antecedents that significantly influence relationships in the Life Science industry were identified as seller's expertise and interaction frequency. At the same time individual-firm antecedents that significantly influence relationships in the Life Science industry were identified as relationship benefits and relationship age. It is critical that organisations simultaneously focus on these commitment levels in order increase the customer lifetime value. In addition, these antecedents have been proofed to be industry specific. The question is thus restated: how competitive can an organisation become once they realise which antecedent most strongly influence relationship quality and customer loyalty in their specific industry.

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Appendices

Appendix 1. The questionnaire posing questions for the antecedents and dimensions of relationship quality.

Objective

The objective of this questionnaire is to determine the individual's role versus the organisations role in establishing long term relationships. You are asked to complete the following questionnaire improve our understanding of these relationships. This should not take any longer than 10 minutes of your time. Your participation is voluntary and you can withdraw at any time without penalty. All data obtained will be kept confidential. By completing the survey you indicate that you voluntarily participate in research. Should you have any concerns please contact me or my supervisor. Our details are provided below:

Researcher
Colette Stapelberg

Research Supervisor
Dr N Kleyn

Instructions

- Please respond to every question.
- Please click on the button that describes the extent to which you **agree the most** with the following statements.
- Please answer the following questions based upon your experiences with one of your current **key suppliers**. Your choice of **key supplier** will hereafter be referred to as: Supplier X.

Demographics	Selection Options					
	Mark with X					
What is your age?	Under 21	21-30	31-40	41-50	Over 51	
What ethnic group do you belong to?	Black	White	Indian	Coloured	Other	
What is your highest qualification?	Matric	Diploma	Degree	Masters	Higher	
What is your current position?	Buyer	Technician	Researcher	Supervisor	Other	

NR	Question (Mark the extent to which you agree the most with the following statements)	No Extent	Small Extent	Medium Extent	Large Extent
	Communication				
1	Supplier X keeps us informed of new developments in the market.				
2	Supplier X seeks our advice and counsel about marketing promotions that might stimulate our demand.				
3	Supplier X is willing to communicate their weaknesses and their strengths.				
4	We hesitate to give our supplier too much information. (R)				
	Similarity				
5	We prefer it if Supplier X's sales person is culturally similar to majority of the people in our organisation.				
6	It is preferable that sales people communicate in the language similar to the language spoken by majority of the people in our organisation.				
7	The sales person should share similar interest with people in our organisation.				
8	The sales person does not require a understanding of the working style of people in our region (R)				
	Interaction frequency				
9	The sales people visit our place of business regularly				
10	The sales people take a lot of time learning our needs				
11	The sales people spend time getting to know our				

	people				
12	We do not require a sales person to visit our place of business regularly (R)				
	Sellers expertise				
13	The sales person is very knowledgeable				
14	The sales person has a great deal of knowledge about the features and attributes of their products and services.				
15	The sales person possesses business skills necessary to manage our account successfully.				
16	The sales person has good knowledge of competitors' products and services.				
	Dependence on supplier				
17	If our firm ended its business relationship with Supplier X, it would be costly to locate and implement a replacement supplier.				
18	Our firm receives benefits from doing business with Supplier X that couldn't be fully duplicated with the next best alternative.				
19	The product performance of the product from Supplier X cannot be obtained from alternative suppliers				
20	Our firm would survive very well without Supplier X as alternative products are available to us. (R)				
	Relationship benefits				
21	We trust Supplier X				
22	As a result of the relationship between ourselves and Supplier X, we are able to maximize financial outcomes				
23	We have more than a business relationship with Supplier X, we are also acquaintances, friends and confidants				
24	Improved relationships with Supplier X lead to discounts				
	Relationship Age				
25	We have known Supplier X for a long time				
26	We have peace of mind when dealing with Supplier X				
27	We find it easier to trust organisations with whom we have established long-term relationships				
28	The relationship age with Supplier X does not impact our buying decisions (R)				
	Relationship Quality Trust				
29	Supplier X has always provided me with a positive experience				
30	Suppliers X keeps promises they make to us				
31	Suppliers X has the capacity to fulfil their obligations (skills, technical and human)				
	Satisfaction				
32	My level of satisfaction with Supplier X is high compared to other similar companies.				

33	My expectations are fulfilled by Supplier X				
34	I feel satisfied with supplier X				
	Commitment				
35	Supplier X is courteous and friendly				
36	I feel loyal towards supplier X				
37	It will take me too much time and effort to buy from another supplier				

Appendix 2. Cover letter sent to all respondents.

Dear Fellow in Science

Research within our industry has been focused on achieving accurate and repeatable results in our area of experience. Our industry is driven by the need to maintain and co-create value collaboratively to build high quality relationships.

The need has arisen to determine the way in which people within the science industry create, maintain and enhance relationships. I have based my MBA thesis on this phenomenon that relational exchange may be industry specific. Please click on the link provided below to complete a short survey on your views.

<https://g3research.co.za/index.php?lang=en&sid=27338&token=7i7cv68995wvqzy>

This should not take any longer than 10 minutes of your time and will be highly regarded and much appreciated. The outcome of the research may influence the way in which managers and contact personnel approach customers in future.

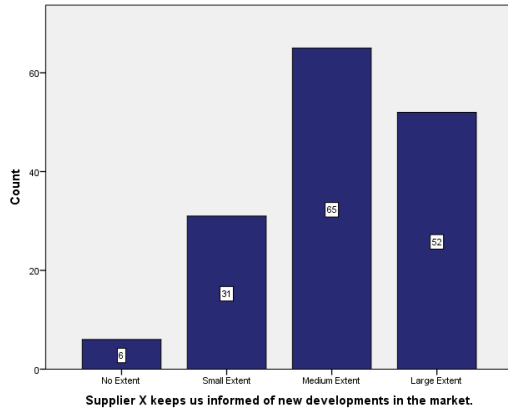
Thanking you in advance.

Colette Stapelberg

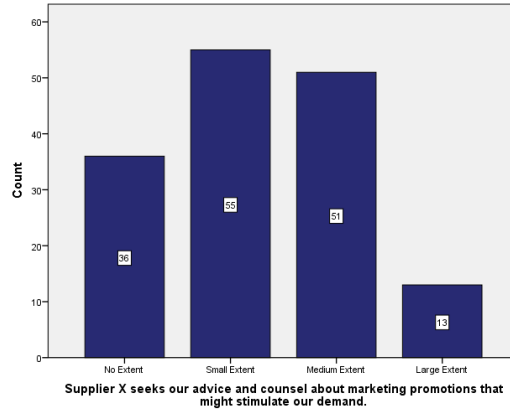
Appendix 3. Histogram indicating the distribution of responses to each question posed in the questionnaire.

Communication

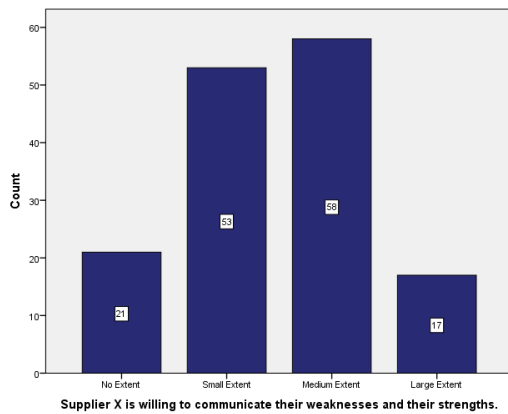
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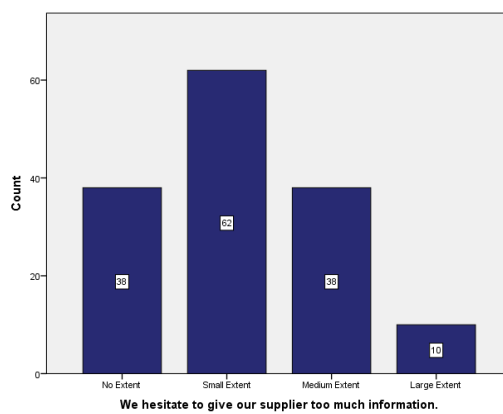
Q2



Q3

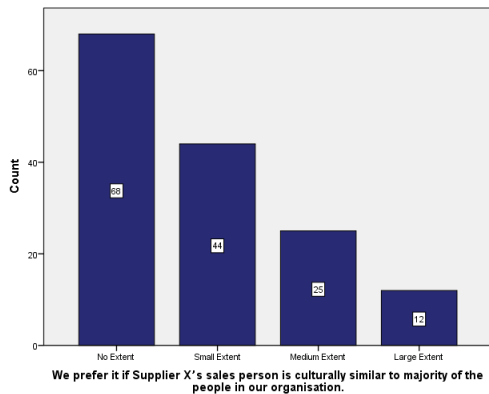


Q4

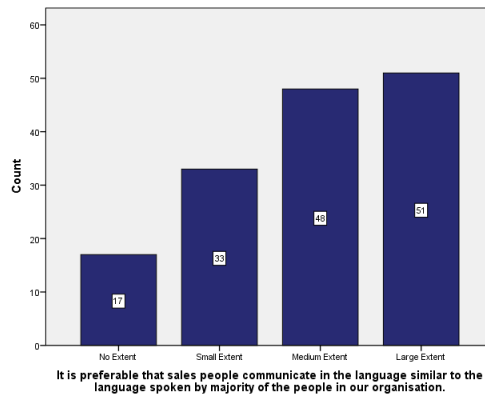


Similarity

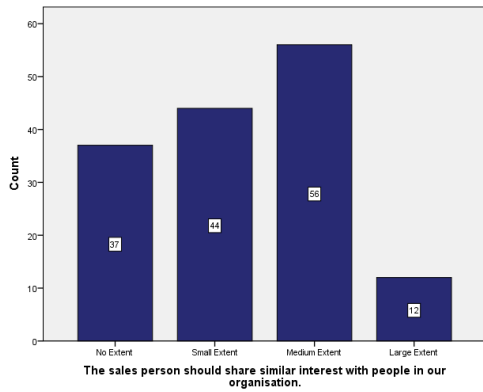
Q5



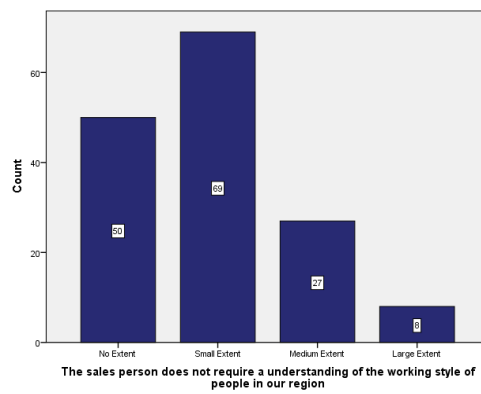
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Q7

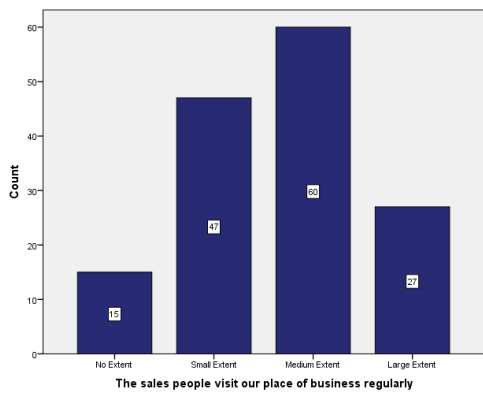


Q8

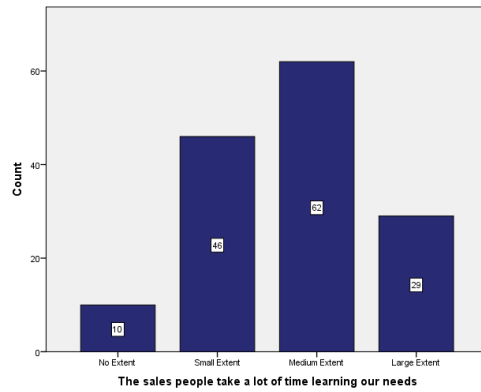


Interaction frequency

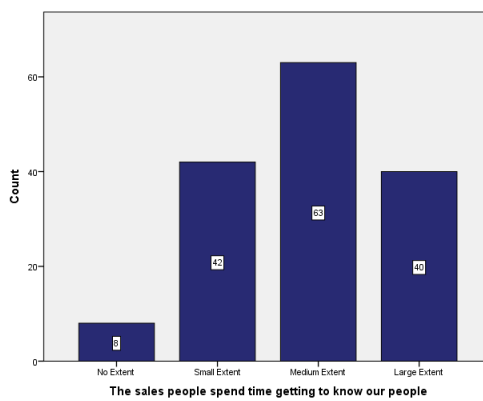
Q9



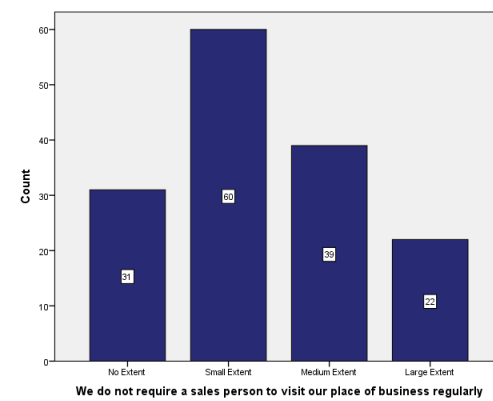
Q10



Q11

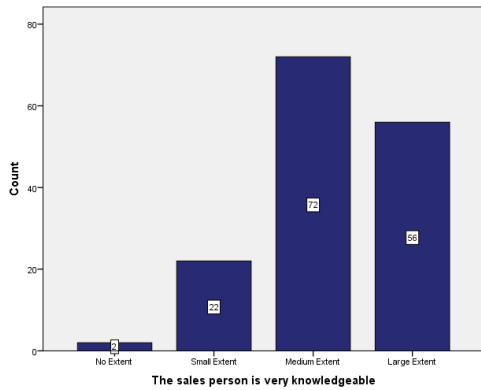


Q12

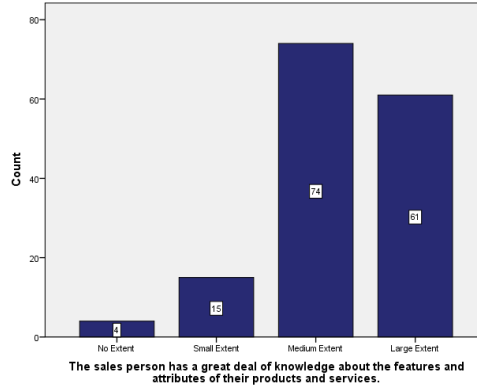


Seller's expertise

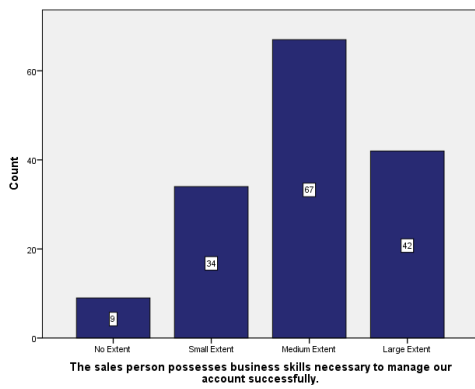
Q13



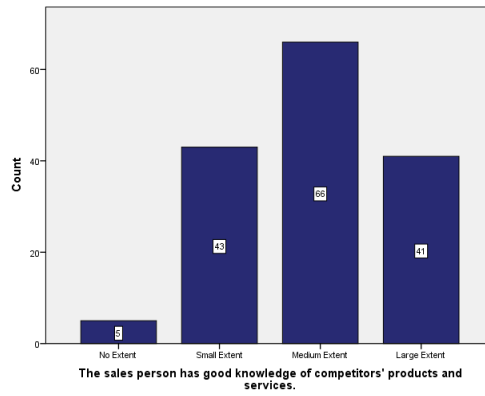
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Q15

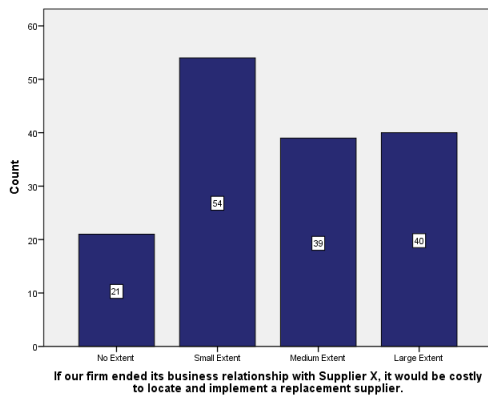


Q16

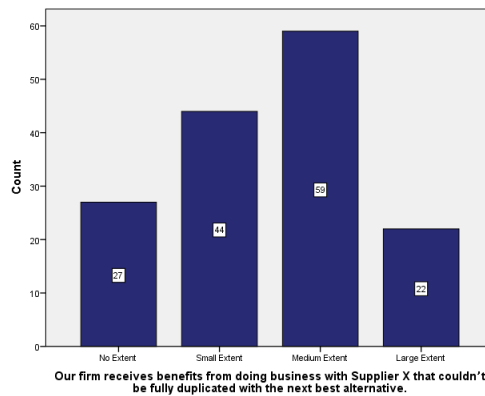


Dependence on seller

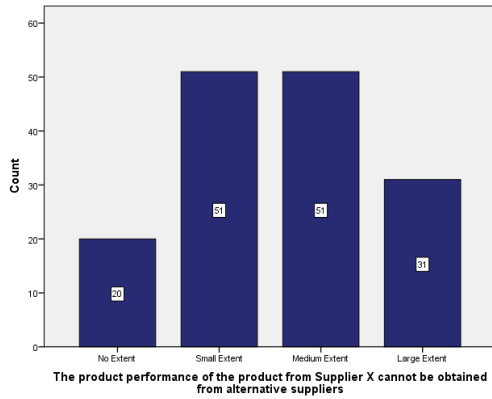
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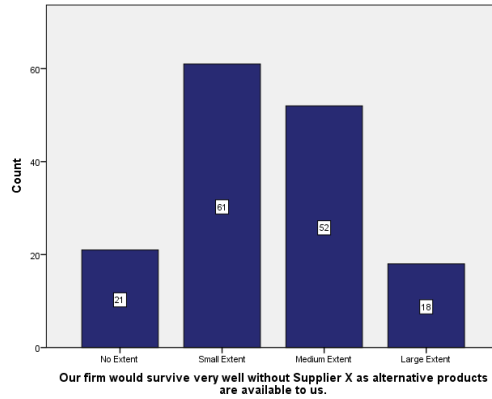
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Q19

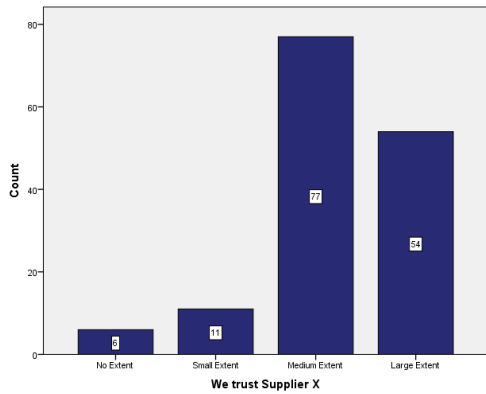


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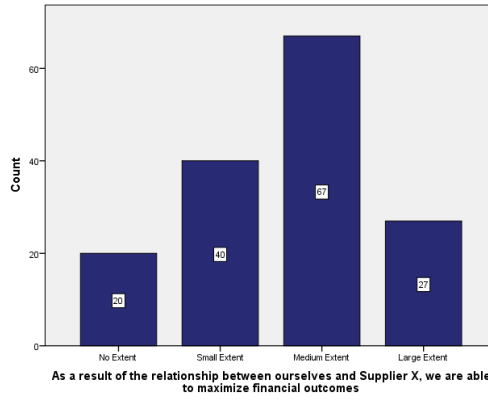


Relationship benefits

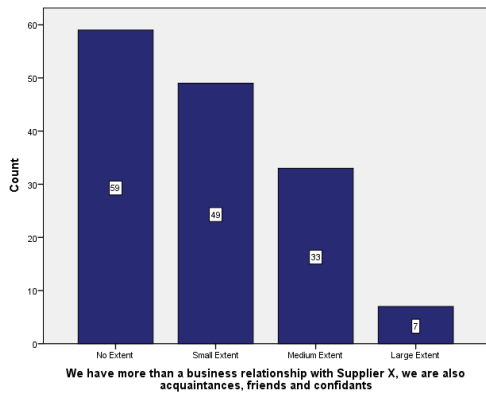
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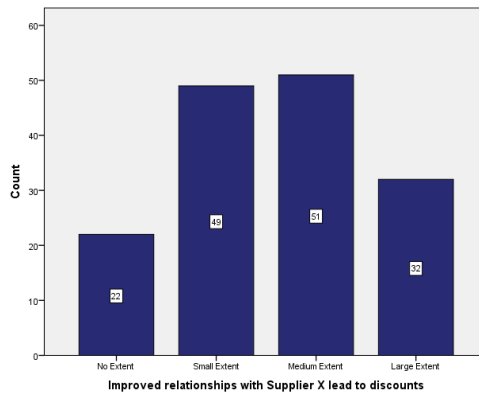
Q22



Q23

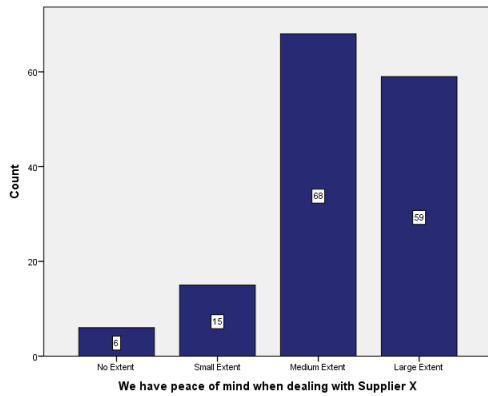


Q24

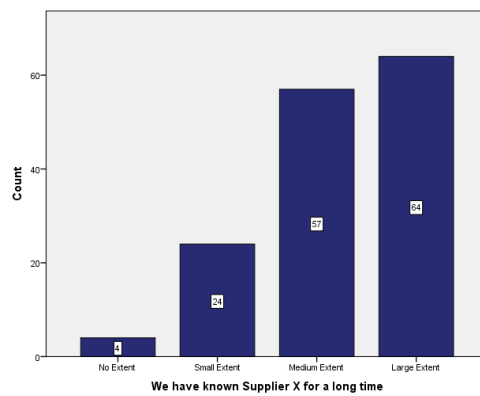


Relationship age

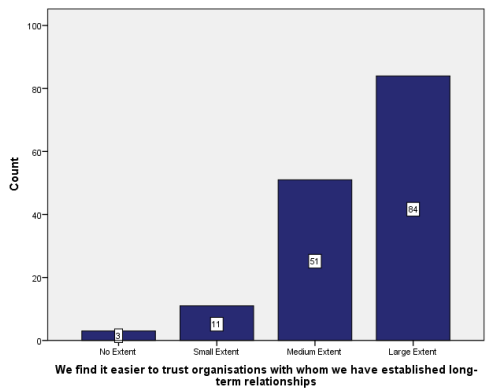
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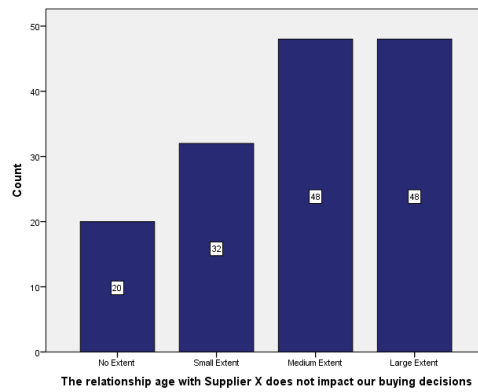
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Q27

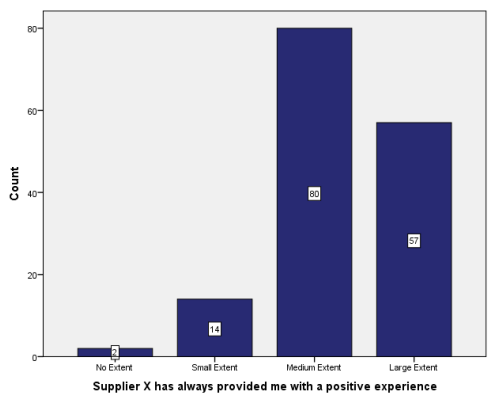


Q28

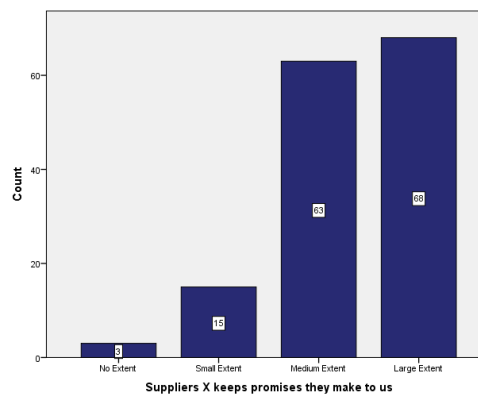


Trust

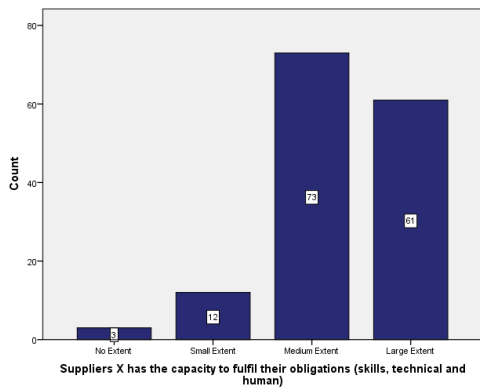
Q29



Q30

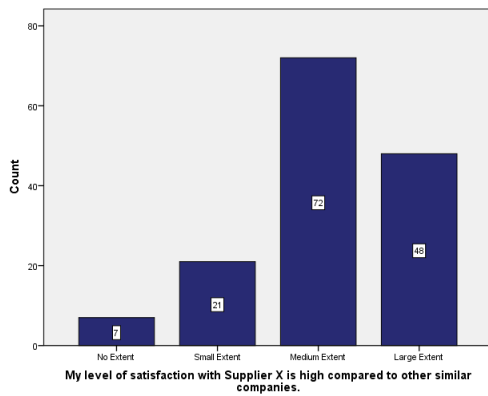


Q31

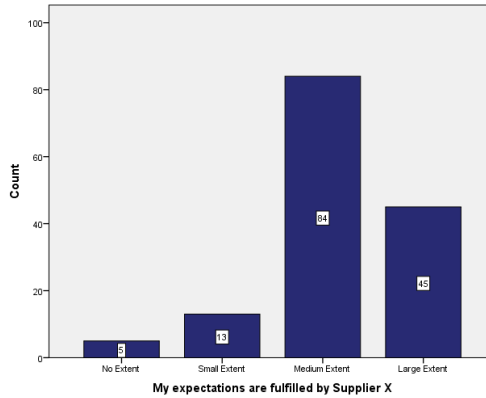


Satisfaction

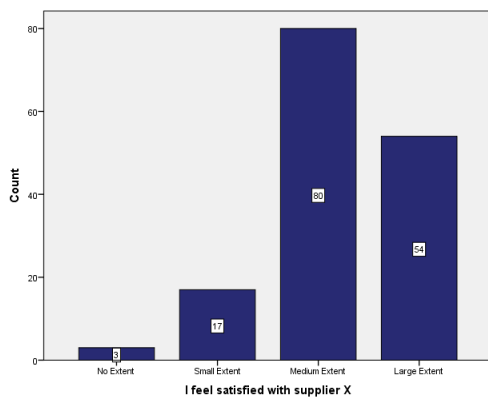
Q32



Q33

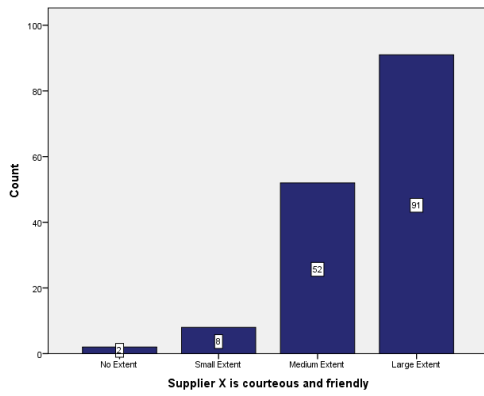


Q34

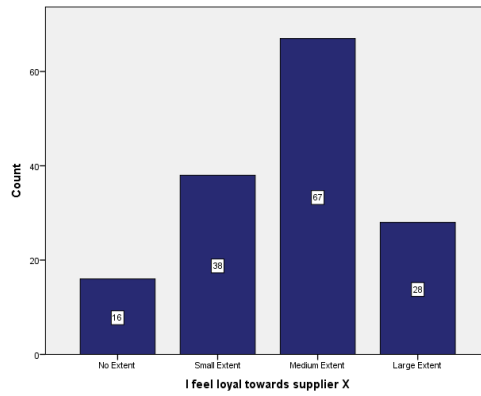


Commitment

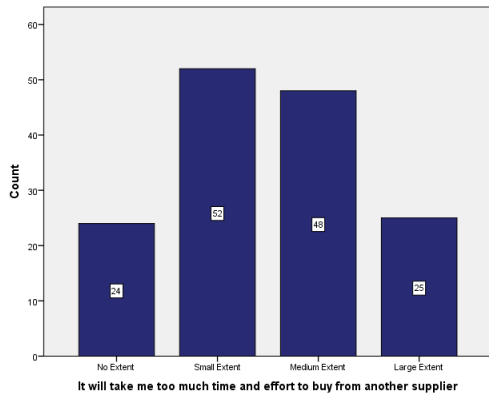
Q35



Q36



Q37



Appendix 4. Descriptive statistics used to summarise the data obtained from the respondents. Frequency distribution shows the distribution of values within the sample. The mean and skewness of the sample indicate the distribution of the variables and the degree of asymmetry. The standard deviation describes the extent of spread of the data around the mean.

Question	No Extent	Small Extent	Medium Extent	Large Extent	Total	Mean	Std Deviation	Skewness
Communication								
Supplier X keeps us informed of new developments in the market.	6	31	65	52	154	3.06	0.834	-0.521
N%	3.9%	20.1%	42.2%	33.8%	100%			
Supplier X seeks our advice and counsel concerning marketing efforts.	36	55	51	13	155	2.26	0.912	0.125
N%	23.2%	35.5%	32.9%	8.4%	100%			
Supplier X is willing to communicate their weaknesses and their strengths.	21	53	58	17	149	2.48	0.874	-0.050
N%	14.1%	35.6%	38.9%	11.4%	100%			
We hesitate to give our supplier too much information.	38	62	38	10	148	2.14	0.878	0.343
N%	25.7%	41.9%	25.7%	6.8%	100%			
Similarity								
We prefer it if Supplier X's sales person is culturally similar to majority of the people in our organisation.	68	44	25	12	149	1.87	0.968	-0.448
N%	45.6%	29.5%	16.8%	8.1%	100%			
It is preferable that sales people communicate in the language similar to the language spoken by majority of the people in our organisation.	17	33	48	51	149	2.89	1.008	-0.465
%N	11.4%	22.1%	32.3%	34.2%	100%			
The sales person should share similar interest with people in our organisation.	37	44	56	12	149	2.29	0.932	.001
%N	45.6%	29.5%	16.8%	8.1%	100%			
The sales person does not require a	50	69	27	8	154	1.95	0.843	0.618

understanding of the working style of people in our region								
%N	32.5%	44.8%	17.5%	5.2%	100%			
Interaction frequency								
The sales people visit our place of business regularly	15	47	60	27	149	2.66	0.890	-0.159
%N	10.1%	31.5%	40.3%	18.1%	100%			
The sales people take a lot of time learning our needs	10	46	62	29	147	2.75	0.851	-0.167
%N	6.8%	31.3%	42.2%	19.7%	100%			
The sales people spend time getting to know our people	8	42	63	40	153	2.75	0.851	-0.167
%N	5.2%	27.5%	41.2%	26.1%	100%			
We do not require a sales person to visit our place of business regularly	31	60	39	22	152	2.34	0.964	0.255
%N	20.4%	39.5%	25.7%	14.5%	100%			
Sellers expertise								
The sales person is very knowledgeable	2	22	72	56	152	3.2	0.728	-0.531
%N	1.3%	14.5%	47.4%	36.8%	100%			
The sales person has a great deal of knowledge about the features and attributes of their products and services.	4	15	74	61	154	3.25	0.735	-0.826
%N	2.6%	9.7%	48.1%	39.6%	100%			
The sales person possesses business skills necessary to manage our account successfully.	9	34	67	42	152	2.93	0.859	-0.445
%N	5.9%	22.4%	44.1%	27.6%	100%			
The sales person has good knowledge of competitors' products and services.	5	43	66	41	155	2.92	0.818	-0.216
%N	3.2%	27.7%	42.6%	26.5%	100%			
Dependence on supplier								
If our firm ended its business relationship with Supplier X, it would be costly to locate and implement a replacement supplier.	21	54	39	40	154	2.64	1.015	-0.017
%N	13.6%	35.1%	25.3%	26%	100%			

Our firm receives benefits from doing business with Supplier X that couldn't be fully duplicated with the next best alternative.	27	44	59	22	152	2.50	0.949	-0.118
%N	17.8%	28.9%	38.8%	14.5%	100%			
The product performance of the product from Supplier X cannot be obtained from alternative suppliers	20	51	51	31	153	2.61	0.954	-0.060
%N	13.1%	33.3%	33.3%	20.3%	100%			
Our firm would survive very well without Supplier X as alternative products are available to us.	21	61	52	18	152	2.44	0.874	0.093
%N	13.8%	40.1%	34.2%	11.8%	100%			
Relationship benefits								
We trust Supplier X	6	11	77	54	148	3.2	0.749	-0.955
%N	4.1%	7.4%	52%	36.5%	100%			
As a result of the relationship between ourselves and Supplier X, we are able to maximize financial outcomes	20	40	67	27	154	2.66	0.917	-0.691
%N	13%	26%	43.5%	17.5%	100%			
We have more than a business relationship with Supplier X, we are also acquaintances, friends and confidants	59	49	33	7	148	1.92	0.90	0.559
%N	39.9%	33.1%	22.3%	4.7%	100%			
Improved relationships with Supplier X lead to discounts	22	49	51	32	154	2.60	0.973	-0.974
%N	14.3%	31.8%	33.1%	20.8%	100%			
Relationship age								
We have known Supplier X for a long time	4	24	57	64	149	3.21	0.810	-0.722
%N	2.7%	16.1%	38.3%	43.0%	100%			
We have peace of mind when dealing with Supplier X	6	15	68	59	148	3.22	0.787	-0.913
%N	4.1%	10.1%	45.9%	39.9%	100%			
We find it easier to trust organisations with whom we have established long-term relationships	3	11	51	84	149	3.45	0.721	-1.249
%N	2.0%	7.4%	34.2%	56.4%	100%			

The relationship age with our suppliers does not impact our buying decisions	20	32	48	48	148	2.84	1.031	-0.979
%N	13.5%	21.6%	32.4%	32.4%	100%			
Trust								
Supplier X has always provided me with a positive experience	2	14	80	57	153	3.25	0.674	-0.617
%N	1.3%	9.2%	52.3%	37.3%	100%			
Suppliers X keeps promises they make to us	3	15	63	68	149	3.32	0.736	-0.885
%N	2.0%	10.1%	42.3%	45.6%	100%			
Suppliers X has the capacity to fulfil their obligations (skills, technical and human)	3	12	73	61	149	3.29	0.700	-0.826
%N	2.0%	8.1%	49%	40.9%	100%			
Satisfaction								
My level of satisfaction with Supplier X is high compared to other similar companies	7	21	72	48	148	3.09	0.808	-0.712
%N	4.7%	14.2%	48.6%	32.4%	100%			
My expectations are fulfilled by Supplier X	5	13	84	45	147	3.15	0.715	-0.797
%N	3.4%	8.8%	57.1%	30.6%	100%			
I feel satisfied with supplier X	3	17	80	54	154	3.2	0.708	-0.645
%N	1.9%	11%	51.9%	35.1%	100%			
Commitment								
Supplier X is courteous and friendly	2	8	52	91	153	3.52	0.660	-1.313
%N	1.3%	5.2%	34%	59.5%	100%			
I feel loyal towards supplier X	16	38	67	28	149	2.72	0.894	-0.334
%N	10.7%	25.5%	45.0%	18.8%	100%			
It will take me too much time and effort to buy from another supplier	24	52	48	25	149	2.50	0.956	0.033
%N	16.1%	34.9%	32.2%	16.8%	100%			

