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Abbreviations

AGOA	African Growth and Opportunity Act
AIDC	Automotive Industry Development Centre
AIEC	Automotive Industry Export
BBBEE	Broad Based Black Economic Empowerment
B2B	Business to Business
CBU	Completely Built Up
CCC	Customs Cooperation Council
CKD	Completely Knocked Down
CRM	Customer Relationship Management
DTI	The Department of Trade and Industry
EU	European Union
GDP	Gross Domestic Product
HS	Harmonised System
ISI	Import Substitution Industrialisation
JIT	Just in Time
MIDP	Motor Industry Development Programme
NAACAM	National Association of Automotive Component and Allied Manufacturers
NAAMSA	National Association of Automobile Manufacturers of South Africa
NAFTA	North American Free Trade Area
OEM	Original Equipment Manufacturer (Vehicle Manufacturer)
OES	Original Equipment Supplier
P&A	Parts and Accessories
RFQ	Request for Quotation
SADC	Southern African Development Community
SMME	Small Medium and Micro Enterprises
USAID	United States Agency for International Development)
WCO	World Customs Organisation
WTO	World Trade Organisation

List of Definitions

(Applicable to the South African automotive supply chain and this study)

After Market Suppliers - After Market supplier industry is defined as all the role players in the automotive market after a car leaves the factory floor, e.g. dealers, fuel stations, panel beaters.

B2B - Business to Business. The B2B represents all business not defined as the consumer market. Hence, businesses dealing with other businesses in the market.

Consumer - The consumer in the automotive supply chain in the buyer (general public) of the car.

OEM - (Original Equipment Manufacturer) The OEM is the automotive manufacturer. OEMs constitute the actual car assemblers such as BMW, Ford and Nissan. Automotive components are sourced by the OEMs from downstream Tier 1 supplier.

OES - (Original Equipment Supplier) The OES is the supplier in the Original Equipment Supply Chain. This is part of the original equipment manufacturing chain.

P&A - (Parts and Accessories) P&A are parts supplied to the aftermarket and not the original equipment supply chain. A further important segment of the automotive value chain is the market for replacement parts.

Tier 1 Supplier - The Tier 1 supplier is the first supplier in the supply chain to the OEM. First Tier suppliers are firms that supply automotive components directly to the assemblers (OEMs). They supply complete systems or subcomponents that is; drive trains, interior systems, etcetera, to the OEMs.

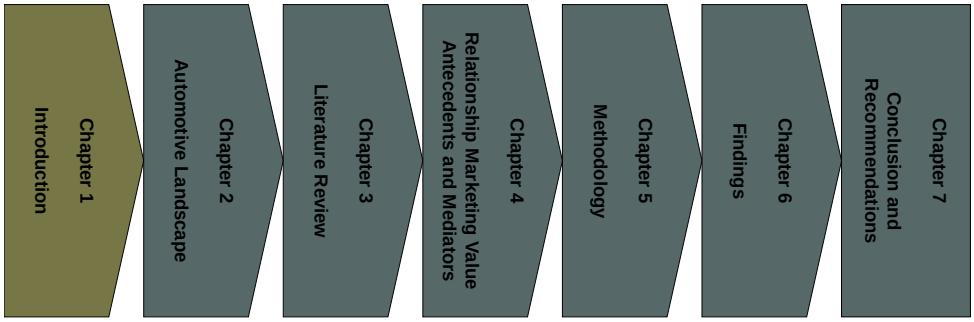
In context with this research the Tier 1 supplier will be named the customer or the buyer from the Tier 2 supplier.

Tier 2 Supplier - The Tier 2 supplier is the supplier to the Tier 1 supplier. Second Tier suppliers are firms who work according to designs provided by assemblers or global first Tier suppliers. Second Tier suppliers require process engineering skills in order to meet cost and flexibility requirements. In context with this research, the Tier 2 supplier will be named the *"supplier*" for the Tier 1 supplier.

Tier 3 Supplier - The Tier 3 supplier is the supplier to the Tier 2 supplier. Third Tier suppliers are firms that supply basic products. In most cases, only rudimentary engineering skills are required. At this point in the chain, firms compete predominantly on price.

Tier 4 Supplier - The Tier 4 supplier is the supplier to the Tier 3 supplier. In most cases the forth tier supplier provides raw material such as steel and leather.

CHAPTER 1 - INTRODUCTION



1.1 BACKGROUND

In the light of the increasing global competition, firms are motivated to reduce costs and increase benefits derived from collaborative relationships (Hogan, 2001: 340). As a result of this, customers tend to reduce the number of suppliers (Ulaga, 2003; Ulaga & Eggert, 2004: 312) and rather focus on establishing strategic relationships with fewer suppliers (Möller & Törrönen, 2003: 109).

In the light of the above, customer and supplier relationships in the automotive component supply chain become more crucial to achieving competitiveness. Automotive supply contracts run for at least 5 years along with the manufacturing of a specific model vehicle. As a result, the supplier and customer interact over a long period and have to accommodate each other in order to achieve maximum efficiency. However, these relationships are often characterised by conflict, mistrust and a lack of commitment, which results in the decay of the relationship, and hampers the competitiveness of

both parties. As part of a competitive and survival strategy, local automotive suppliers are required to communicate more effectively with their customers in order to better understand their needs and requirements. Long term relationships, rather than once off transactions create value within the business to business (B2B) market (Ulaga & Chacour, 2001; Eggert, Schultz & Ulaga, 2006: 21; Li, 2010: 313), which is also essential for a successful long term survival of businesses in the automotive industry. The creation of relationship value is the focus of this study and the application of relationship value in the South African automotive supply chain is investigated (refer to chapter 2 for the outline of the South African automotive landscape).

The major South African automotive role players are mainly of international origin, while only role players lower in the supply chain such as Tier 2 suppliers, are of South African descent. The survival of local automotive component suppliers is imperative, as they are creators of jobs requiring key skills, therefore it is important that Tier 2 suppliers align themselves with the needs of the larger role players in order to retain business.

However, Barnes (2000a: 12) states that the South African automotive component industry (especially downstream suppliers) finds itself under threat as a net result of:

- increased international competition, largely due to the rapid and sweeping liberalisation of the South African trade policy regime;
- a stagnant domestic market;
- the rapid erosion of local sourcing by South African original equipment manufacturers (OEMs) as they become increasingly integrated into the global strategic operations of their parent companies.

Furthermore, Tier 2 suppliers are not performing according to the required international benchmarks (Barnes, 2000a; Tolmay, 2004; Naude & Badenhors-Weiss, 2011: 278). With this in mind, the phasing out of the MIDP

(Motor Industry Development Programme) poses a threat for 2nd Tier Suppliers (and suppliers lower in the supply chain) as they will experience increased pressure from the component suppliers of global low cost countries. The MIDP is discussed in more detail in chapter 2. Consequently, uncompetitive firms with poor international linkages will disappear from the (automotive component) industry. However, firms who improve their competitiveness and create appropriate linkages with international firms can benefit from burgeoning export sales (Barnes, 2000a: 12).

An analysis of these challenges leads to the identification of the problem statement, namely: *It is unclear whether Tier 2 suppliers will retain the business of their Tier 1 customers in the competitive global arena after the phasing out of the MIDP.*

Relationship marketing and more specifically the relationship value generated from this, promises to fulfil the need for Tier 2 suppliers to improve their marketing offering to Tier 1 suppliers (which will be referred to as the customer). Not only will Tier 2 suppliers provide a better offering and be more competitive in general, but they will also secure the retention of customer orders (Lindgreen, Davis, Brodie & Buchanan-Olivier, 2000: 295; Ulaga & Eggert, 2004: 311; Ang & Buttle, 2006: 85). According to theory, relationship marketing results in relationship value, with retention as an outcome (Lindgreen, et al., 2000: 295, Ulaga & Eggert, 2004:311; Ang & Buttle, 2006:85).

Relationship value is a fairly new concept which originated during the 1980s; various academic authors have indicated that this subject has not yet been fully explored (Doherty & Alexander, 2004; Watkins & Hill, 2008: 1). Value literature has moved through various stages and perspectives since its origin in the 1980s (and will be further discussed in chapter 3). Earlier studies have focussed on key influences of value, inclusive of customer and consumer value, augmented product concepts, and the value chain. Recent

perspectives have reflected on creating and delivering superior customer value, the customer's value to the firm, and customer perceived value, while even newer developments have focused on customer and shareholder value and, most importantly, relationship value (Payne & Holt, 2001: 162; Li, 2010: 313). The focus of this research falls on the most recent concept of relationship value in the B2B market and more specifically the South African automotive supply chain.

Scholars in this field increasingly focus their research on conceptualising and measuring relationship value in the B2B environment (Hogan, 2001: 340). The essence of this research is to understand (by means of a model) how relationships generate value in the South African automotive supply chain especially for Tier 2 suppliers.

According to Ulaga (2003: 678), value for the customer is a subjective concept, and is conceptualised as a trade-off between benefits and sacrifices. Benefits and sacrifices can be multifaceted, while value perceptions are relative to the competition. It is therefore imperative to determine which value constructs are of importance for the South African automotive supply chain.

This research determined relationship value constructs that can be classified either as antecedents or mediators (Ulaga & Eggert, 2002:15; Spiteri & Dion, 2004:675) within the South African automotive supply chain. Further, this research determined the correlation between relationship value and order retention within the South African automotive industry supply chain. Hence, this furnishes guidance to Tier 2 suppliers in order to align themselves with the needs of Tier 1 suppliers (customer) in order to secure their order retention.

Various South African authors (such as Black, 1998; Barnes, 2001; Moodley, Morris & Barnes, 2001; Lamprecht, 2006; Kaggwa, 2008.) have not only

analysed the South African automotive industry, but also focus mainly on production activities, quality benchmarks, export performance, industry incentives and neglected marketing activities, and more specifically, relationship value. Hence, literature relating to relationship value within the South African automotive industry is currently extremely limited. The aforementioned statement led to the central question for this study: *How can Tier 2 suppliers increase the value of their relationships with their Tier 1 suppliers?*

The supply chain in the South African automotive industry is discussed in detail in chapter 2.

1.2 TIER 2 SUPPLIER CHALLENGES

Globalisation brings about numerous challenges for the local automotive supply chain such as shorter life cycles, rapidly changing customer product buying patterns and more knowledgeable and sophisticated customers (Jüttner & Wehrli, 1994:54; Ambe & Bardenhorst-Weiss, 2011: 352). As customers are reducing their number of suppliers (Ulaga, 2003: 677) in order to manage the supply chain more effectively, this results in the focus falling on strategic competencies, which are also prevalent in the South African automotive supply chain (Barnes, 2000b: 38).

As a result, the automotive supplier in the supply chain has to adjust to circumstances as both customer and supplier often have to make substantial adaptations and commitment of resources in the development of partnering supplier relationships (Möller & Törrönen, 2003: 109). Ulaga and Eggert (2006: 119) reinforce this by arguing that vendors should constantly add value by delivering superior relationship value to customers in order to sustain long term relationships with customers (Ulaga & Chacour, 2001: 526; Li, 2010: 316; Rehman, 2012: 598; Lindgreen et al, 2012: 208).

The problem facing local Tier 2 suppliers is the lack of performance required by international benchmarks (Barnes, 2000b: 38; Tolmay, 2004: 7) as well as a lack of marketing skills in the B2B market. Rather, in reality, the second Tier supplier focuses on the ability to manufacture products as efficiently and competitively as possible (Barnes, 2000b: 38) which is not viewed as a competitive differentiator.

The local Tier 2 suppliers are also faced by major obstacles such as:

- Competition from low cost manufacturing countries;
- Phasing out of MIDP;
- Limited component design capabilities;
- Lack of global competitive strategies.

Therefore the problem facing Tier 2 suppliers is how to retain business in the competitive global arena after the phasing out of the MIDP. The Tier 2 supplier will be referred to as the *"supplier"* and the Tier 1 supplier will be referred to as the *"customer".*

The problems facing South African Tier 2 suppliers are further elaborated in chapter 2.

1.3 THEORETICAL FOUNDATIONS

A brief overview of the main concepts found in the literature is furnished as a background to the research. However, the topic of value is further discussed in chapter 3 of this thesis.

1.3.1 RELATIONSHIP VALUE

Globalisation and the growing trend towards the commoditisation of products and services (Pine & Gilmore, 1999: 1) create a need for suppliers to offer greater value in order to differentiate themselves from their competitors.

The creation of value is increasingly viewed as the next source of competitive advantage (Woodruff, 1997) and is considered as being crucial to business success (Flint, Woodruff & Gardial, 1997). Marketing value, specifically relationship value, is a very popular construct within the management of business markets today (Ulaga & Chacour, 2001; Payne & Holt, 1999: 159) since this is viewed as a competitive advantage.

Within the B2B market, long term relationships, rather than once off transactions, create value (Li, 2010: 313; Rehman, 2012: 598; Lindgreen et al, 2012: 208), which is essential for the long term survival of businesses (Ulaga & Chacour, 2001). Relationship value, as a concept of relationship marketing, originated from the trend among the majority of marketing practitioners who considered the traditional marketing mix as a less desirable transactional approach (Lehtinen, 2011: 117) than a long term relational (or collaborative) one (Grönroos, 1994: 53; Constantinides, 2006: 408). Value can result in various benefits in the B2B environment, namely, competitive advantage, goal attainment, cash benefits, financial benefits and social benefits (Hogan, 2001: 340).

1.3.2 VALUE AS PART OF THE MARKETING EXCHANGE THEORY

Value, in particular, relationship value (Li, 2010: 313), forms part of the exchange theory (Payne & Holt, 1999: 161) where clients expect to be better off after the exchange. Therefore, the higher the net-value expected or received, the stronger the motivation to commence and sustain an exchange process (Ulaga & Eggert, 2005: 75).

1.3.3 RELATIONSHIP VALUE IN THE B2B INDUSTRY

Within today's B2B environment, specifically the manufacturing industry such as the automotive industry, the value concept is of utmost importance when analysing industrial customer-supplier relationships (Ulaga, 2001; 2006). This falls under the focus of the entire study.

Further to this, Ulaga (2001) confirms that a greater relationship value (Li, 2010: 313) offering can secure higher levels of customer satisfaction (Ulaga & Chacour, 2001) and consequently lead to business retention, positive word of mouth, a stronger position, and, ultimately, higher market share. By means of value offerings, customer loyalty, which is directly related to profitability, is secured. This results in long term relationships (Li, 2010: 316; Rehman, 2012: 598; Lindgreen et al, 2012: 208) which in turn, become a source of competitive advantage (Flint, Woodruff & Gardial, 1997).

1.3.4 VALUE TRADE OFF: SACRIFICES AND BENEFITS

Value implies that it constitutes a trade-off between benefits and sacrifices and an interaction between the customer and product / service (Payne & Holt, 2001: 161). The concept of "*benefits"* or *"sacrifices"* is also described by Dwyer, Shurr and Oh, (1987, 14), Pine and Gilmore (1999), Anderson, Jain and Chintagunta, (1993), Anderson and Narus (1995), Ravald and Grönroos (1996), Narus (1999), Lapierre (2000), Ulaga and Chacour (2001), and Walter, Ritter and Gemünden, (2001).

Lapierre (2000) also avers that the purchasing decisions of customers are often guided by a careful assessment of what benefits or value they obtain in exchange for the costs they incur in order to acquire and consume the product. "*Customer perceived value can, therefore, be defined as the difference between the benefits and sacrifices in terms of their expectations"* (Lapierre, 2000: 123). Hence, the suppliers in the B2B market should ensure that the offering benefits outperform sacrifices in a business transaction.

1.3.5 RELATIONSHIP MARKETING IN THE B2B MARKET

Within the traditional marketing genre, the 4P (product, price, promotion and place) marketing mix is embraced by practitioners and academics; however, according to Constantinides (2006: 409), the marketing mix still poses various areas that have not yet been fully identified, especially in the B2B manufacturing industry (Lehtinen, 2011: 117).

According to Grönroos (1994: 53) and Constantinides (2006: 408), the majority of marketing practitioners consider the marketing mix as being the toolkit of transaction marketing (or a once off transaction). The developments in the B2B landscape have forced marketers to explore new theoretical approaches that address specific marketing problems and expand the scope of the marketing management theory (Constantinides, 2006: 412). Consequently, a need to foster longer term collaborative relationships with business stakeholders was born. This leads to the emphasis being placed on developing long term very close relationships and a win-win rather than the win-lose philosophy (Vakis, 1998: 4). This approach motivates the movement away from the traditional adversarial relationship between suppliers and their customers towards a new form of relationship based on co-operation (Vakis, 1998: 4). Therefore, relationship marketing (Alqahtani, 2011: 585) rather than transactional marketing is currently applied in the B2B market.

This argument is also presented by Ulaga and Chacour (2001), who states that the business environment is undergoing a paradigm shift from a transactional to a longer term or collaborative marketing relationship. This view is also evident in Kotler (1990), Webster (1992), Grönroos (1996a, 1996b), Parvatiyar and Sheth (1997), and Payne and Holt (2001: 159).

The main objective behind relationship marketing in the B2B market is the creation of value for all stakeholders.

1.3.6 RELATIONSHIP MARKETING RESULTS IN VALUE

Since the more recent development has been to consider the collaborative relationship value concept from the viewpoint of relationship marketing (Payne & Holt, 1999; Li, 2010: 313), researchers are directing their attention more towards the concept of customer value as a major building block of relationship marketing (Ulaga & Eggert, 2005). Anderson (1995: 349) opines that *"value creation and value sharing can be regarded as the raison d'être of collaborative customer-supplier relationships".*

Hunt and Arnett (2006: 77) assert that relationship marketing results in various successful factors, which include:

- Trust (Dwyer, et al., 1987; Morgan & Hunt, 1994; Sividas & Dwyer, 2000; Smith & Barclay, 1997; Wilson, 1995; Hunt & Arnett, 2006);
- Commitment (Anderson & Weitz, 1992; Day, 1995; Geyskens, Steenkamp & Kumar, 1999; Moorman, Zaltman & Deshpandé, 1992; Hunt & Arnett, 2006);
- Cooperation (Anderson & Narus, 1990; Morgan & Hunt, 1994; Hunt & Arnett, 2006);
- Keeping promises (Grönroos, 1990, 1994; Hunt & Arnett, 2006);
- Shared values (Yilmaz & Hunt, 2001; Brashear, Boles, Bellenger & Brooks, 2003; Morgan & Hunt, 1994; Hunt & Arnett, 2006);
- Communication (Mohr & Nevin, 1990; Mohr, Fisher & Nevin, 1996; Hunt, et al., 2006).

In essence, value is created in order to ensure market differentiation and secure financial benefits and order retention. The economic benefits of relationship marketing and the value thereof are discussed in the next section.

1.3.7 Economic and Retention Advantages of Relationship Marketing

Customer retention is pivotal in the business environment, and relationships through relationship marketing ultimately lead to customer retention (Blankenburg Holm, Kent & Jan, 1999; Eriksson & Vaghult, 2000). Grönroos (1997) suggests that, as a result, customer retention, enhanced by relationship marketing, leads to increased sales and reduced marketing costs compared to that of selling to new customers.

Business retention, according to Ang and Buttle (2006: 85), results in further benefits such as:

- increased purchasing volumes
- a growth in customer referrals
- a decrease in maintenance
- administration costs and a decrease in customer replacement costs.

Furthermore, it is found that retained customers are willing to pay higher prices than newly acquired customers would and are less likely to receive the discounted offers that are often made to acquire new customers (Ang & Buttle, 2006: 85; Jansen van Rensburg & Venter, 2004).

Relationship value resulting in business retention will be discussed in detail in the literature review in chapter 3.

1.3.8 Antecedents and Mediators of Relationship Marketing Value

In order to create value, companies should determine what relationship value antecedents and possible mediators are required in order to achieve the desired result.

Various authors attempt to define relationship value antecedents (Ulaga, 2003; Ulaga & Eggert, 2005; Eggert, Ulaga & Schultz, 2006) as well as

relationship mediators (Morgan & Hunt, 1994). Various models are also presented relating to relationship antecedents and mediators. However, consensus regarding the role of constructs (antecedents or mediators) is inconclusive among the said authors (Palmatier, Dant, Grewal & Evans, 2006).

Various authors have also investigated the role of mediating factors within the relationship value genre. The Key Mediating Variable (KMV) as proposed by Morgan and Hunt (1994: 22) results in the efficiency, productivity, and effectiveness that are conducive to relationship marketing success. The KMV model (Morgan & Hunt, 1994: 22) positions commitment and trust between important relationship antecedents and outcomes. It is measured against an alternative model that depicts commitment and trust as antecedents for relationship marketing.

1.3.9 STRATEGIC APPROACHES REGARDING RELATIONSHIP MARKETING VALUE

Suppliers very seldom engage in proactive marketing. Swamidass, Baines and Darlow (2001) maintain that reactive marketing can be detrimental to business. It is imperative that suppliers focus on the implementation of a marketing strategy (as part of their business strategy), especially a relationship marketing value strategy (Brunyee, 1996: 14; Van der Wath, 1996: 1). Hence, new capabilities are required to ensure that relationship marketing is strategically aligned with company objectives as well as customer needs (Gordon, 1998: 54).

1.4 CONTRIBUTION OF THIS STUDY

Relationship value is a relatively new concept not fully researched (Doherty & Alexander, 2004; Watkins & Hill, 2008: 1) and some shortcomings are still prevalent with regard to relationship value literature.

This study will contribute to better understanding:

- How relationship value can be conceptualised through an academic model as further research is required regarding the measurement, performance, and effectiveness of relationships (Parvatiyar & Sheth, 1997: 249; Payne & Holt, 2001: 177), and no single model captures all the elements in relation to relationship value (Fontenot & Wilson, 1999: 10; Payne & Holt, 2001: 177; Ulaga & Eggert, 2005; Eggert, Ulaga, & Schultz, 2006).

- The conceptualisation of relationship value in the South African automotive supply chain, as limited research is available on relationship value in B2B, specifically the automotive supply chain (Tolmay, 2004; Patterson & Spreng, 1997: 414; Naude & Badenhorst-Wiess: 2011: 295), in particular, in terms of countries, purchasing professionals, industries, demographical sub samples (Ulaga & Eggert, 2005: 89 – 90; Morgan & Hunt, 1994:34).

- The conceptualisation of mediators and antecedents, such as trust and commitment (Ulaga & Eggert, 2002:15; Spiteri & Dion, 2004: 675; Doherty & Alexander, 2004; Watkins & Hill, 2008: 1) as no consensus with regard to this exists (Morgan & Hunt, 1994; Spiteri & Dion, 2004: 685; Palmatier, Dant, Grewal & Evans, 2006; Hunt, Arnett & Madhavaram, 2006).

- The conceptualisation of whether relationship value leads towards business retention (Lindgreen, et al., 2000: 295, Ulaga & Eggert, 2004:311; Ang & Buttle, 2006: 85) specifically in the South African supply chain.

This research is important to the academic community as it provides further insight into the theoretical conceptualisation (through a model) of relationship value in the South African automotive supply chain. This study will further contribute to industry by better understanding the relationship between Tier 1 and Tier 2 suppliers and could provide guidelines to Tier 2 suppliers with practical solutions.

These contributions add to the body of knowledge of relationship value.

1.5 RESEARCH SCOPE

As literature on relationship value in the B2B market is not yet been fully exploited (Doherty & Alexander, 2004; Watkins & Hill, 2008: 1) and authors are not in agreement with relationship value antecedents and mediators (Palmatier et al., 2006: 136), further research is needed (Ulaga & Eggert, 2002: 15; Spiteri & Dion, 2004: 675) in this regard. This will be further explored in chapter 4.

The strategy of enquiry involved a comprehensive literature review followed by qualitative interviews with industry role players after which a quantitative research methodology was followed. Quantitative research questionnaires were distributed via email to representatives of Tier 1 suppliers in the automotive supply chain. The emails were later followed up via telephone calls in order to encourage respondents to complete the questionnaire. The perception of relationship value requirements of Tier 1 suppliers from their best Tier 2 suppliers was determined within the South African automotive supply chain.

The research framework of this research constituted members of NAACAM (National Association of Automobile Component and Allied Manufacturers) of South Africa, which holds the most comprehensive list of Tier 1 suppliers

available. The majority of South African Tier 1 suppliers are members of NAACAM, making it the most suitable channel through which to approach potential participants for the purpose of this research. The selection of the research population and framework is more fully explained in chapter 5, which covers the methodology employed in this study.

Different decision makers from Tier 1 suppliers (customers) such as the CEOs, the procurement managers and the production managers were interviewed. The profile of the respondents is further explained in chapter 6.

1.5.1 RESEARCH OBJECTIVES

Attempting to determine the antecedents and mediators of relationship value is an important topic for both marketing academics and practising marketers. Literature regarding the aforementioned is not conclusive and this research created a structural equation model depicting the constructs determining relationship value in the South African automotive supply chain. Further to this, the aimed is to identify constructs that contribute towards relationship marketing value and business retention.

1.5.1.1 Primary objective

The primary objective of the research was to*: "develop a relationship value model for the South African automotive B2B supply chain".*

The major constructs addressed in the study were: relationship value antecedents, relationship value mediators and their relationship value.

1.5.1.2 Secondary objectives

The secondary research objectives of this study were:

- Objective 1: Determine RVM constructs in the relationship between Tier 1 and Tier 2 suppliers.
- Objective 2: Determine how Trust and Commitment relate to Relationship Value.
- Objective 3: Determine the antecedents for the perception of relationship value by Tier 1 suppliers.
- Objective 4: Determine the relationship between relationship value and business retention.

1.6 RESEARCH METHODOLOGY

The study followed a quantitative exploratory approach with the purpose to account for the forces that caused a certain phenomenon to occur (Cooper & Schindler, 2001: 13) such as relationship value antecedents and mediators leading to business retention. All constructs were simulated through an SEM (structural equation model).

The research followed a six step approach (as per Figure 5.1) in order to reach the structural equation model as an outcome. These steps were: step 1 – review proposed academic model; step 2 – determine data suitability for EFA (Exploratory Factor Analysis); step 3 – establish communalities between items; step 4 – calculate the total variance; step 5 – conduct rotated axis factoring; and step 6 – creating a structural equation model.

Detailed discussions regarding the research methodology are included in chapter 5.

1.7 DELIMITATIONS

This research focused on only the B2B automotive supply chain and addressed the relationship between Tier 1 (customer) and Tier 2 suppliers. Further, this study focused only on the manufacturing of cars and not buses or trucks. A limited research framework (and population) was available as the researcher approached only NAACAM (National Association of Component and Allied Manufacturers) members.

This study did not take into consideration the "*sacrifices"* associated with value but only the "*benefits*". Therefore, it determined only the constructs that contribute towards value (through multiple regressions); the model did not serve as an equation model with which to measure the difference between *"sacrifices*" and "*benefits".*

Finally, this study constituted a snapshot approach and was not longitudinal in nature, which would define relationship value over a longer period. The research was undertaken with limited financial resources.

The delimitations of the research are detailed in chapter 7.

1.8 LIMITATIONS

This researcher approached only NAACAM members as the research framework (refer to Annexure F); not all Tier 1 automotive component suppliers are members of NAACAM. Further limitations to this study include limited financial resources and major time constraints.

1.9 ETHICS

Ethical compliance was regarded as being extremely important for the purpose of this research; therefore, the researcher obtained a non disclosure agreement letter from the School of Business Leadership (UNISA), stating that the student is enrolled as a DBL student and that all information disclosed to the interviewees is confidential and that no deception will occur. This letter was presented to all interviewees along with the research questionnaire. Verbal or written informed consent was required from the interviewees. To protect respondents, their identification was not disclosed.

More information regarding the ethics of this research is disclosed in chapter 5 (methodology chapter).

1.10 CHAPTER OUTLINE

Chapter two reviews the South African automotive landscape inclusive of a complete supply chain. The various challenges experienced by the industry are noted, amongst which the lack of active relationship marketing value is offered by local automotive component suppliers.

Chapter three furnishes an overview of the literature reviewed regarding relationship marketing, relationship value and existing models relating to these topics.

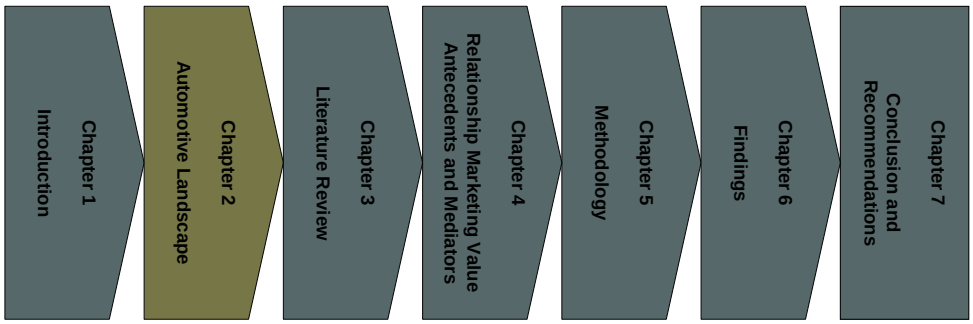
Chapter four investigates relationship marketing value antecedents and mediators as well as areas that have not yet been fully identified in literature. Different views are presented regarding antecedents and mediators for relationship value as well as the introduction of applicable strategies.

Chapter five furnishes an overview of the research methodology employed to address the research objectives.

Chapter six presents the research findings and the respondent profiles.

Chapter seven summarises the research conclusions and recommendations.

CHAPTER 2 - THE SOUTH AFRICAN AUTOMOTIVE LANDSCAPE



2.1 INTRODUCTION

The automotive industry is globalised (Humphrey & Memedovic, 2003: 2; Ambe & Badenhorst-Weiss, 2011: 337), thus, in this chapter the complete automotive industry landscape, both internationally and locally, is outlined.

The South African automotive industry, inclusive of the complete supply chain, is of utmost importance to the South African economy. According to the Department of Trade and Investment in South Africa (The dti, 2004: 7; Ambe & Badenhorst-Weiss, 2011: 337), it is the most important manufacturing sector in South Africa.

The South African automotive industry also greatly contributes towards a positive trade balance as vehicle and automotive component exports soared during the recent years.

Valuable incentives that contribute positively towards the local automotive industry such as the MIDP (Motor Industry Development Programme) as well as AGOA (African Growth and Opportunity Act) are discussed in detail in this chapter. The South African automotive industry is reliant on the MIDP which will be phased out in 2012 and will most probably not be replaced by a similar government incentive due to pressure from the World Trade Organisation (WTO).

The complete supply chain and procurement procedure of the industry is outlined in this chapter as well as the challenges facing local automotive component suppliers. These include competition from low cost manufacturing countries (Kaggwa, 2008: 7; Lamprecht, Rudansky-Kloppers & Strydom, 2011: 56), the phasing out of the MIDP (Motor Industry Development Programme) (Tolmay 2004: 71; Lamprecht, 2006: 167), the lack of local automotive component supplier performance (Barnes, 2000a: 16; Tolmay, 2004: 7; Naude & Badenhorst-Weiss, 2011: 279) and limited component design capabilities (Kaggwa, 2008: 10).

Further to the abovementioned, local automotive component suppliers also operate in isolation from the global arena and do not position themselves in terms of higher market value offerings. Consequently, this hampers their competitiveness, which is crucial to the local automotive industry (Barnes, 2000a: 37).

2.2 GLOBAL AUTOMOTIVE INDUSTRY

The automotive industry is often thought of as being one of the most global of all the industries (Von Corswant & Fredriksson, 2002: 741; Humphrey & Memedovic, 2003: 2; Ambe & Badenhorst-Weiss, 2011: 337). Its products are spread all over the world; however, the majority of the industry is dominated by a few global role players as listed in Table 2.1.

Table 2.1 Market Share of Global OEMs (Humphrey & Memedovic, 2003: 15)

Company	Production (millions of units)	Share of Global Production Percentage (%)
General Motors	7,6	13,6
Ford	6,7	12,0
Toyota	6,0	10,9
VW	5,1	9,2
Daimler Chrysler	4,4	7,8
PSA Group (Peugeot & Citroen)	3,1	5,6
Honda	2,7	4,8
Nissan	2,6	4,6
Hyundai	2,5	4,5
Fiat	2,4	4,3
Renault	2,4	4,3
Mitsubishi	1,6	3,0
Suzuki	1,5	2,8
Other	7,0	12,6
Total	55,6	100

The dominant OEMs (Original Equipmpent Manufacturers) are concentrated mainly in the triad countries (Humphrey Memedovic, 2003: 2; AIEC, 2007: 5) of North America, Western Europe and Japan. The markets in these regions are mature and characterised by vehicle production overcapacity, cost pressures and, in some cases, poor financial performance (AIEC, 2007: 5).

Therefore, intense competition by the OEMs for increased market share results in challenges as well as opportunities for developing countries that are able to provide the twin benefits of factor cost savings and enormous growth potential. Owing to different approaches and cost cutting strategies of the leading OEMs in the triad economies, which are intended to balance the automotive supply and demand sides, major global trends are arising (AIEC, 2012: 13). These underlying global trends and structural pressures include mergers and acquisitions, global production overcapacity, outsourcing and sourcing strategies, the devising of new technology and innovations, as well as having to meet environmental considerations (Von Corswant & Fredriksson, 2002: 741; Lamprecht, 2006: 25).

The mentioned major global trends exert a significant impact on the development and future of the global automotive value chain role players as well as on the developed and developing automotive producing countries and regions. Developing countries, which are targeted in order to add value to the global strategies of the multinational companies, attract large scale investments in production facilities for completely built vehicles and automotive components. Governments around the world are therefore actively attempting to promote their countries by attracting automotive investments via policy and support measures in recognition of the benefits that automotive investments generate in terms of economic growth, development and technology transfer (Humphrey & Memedovic, 2003: 29).

The global automotive industry is also represented in South Africa. Major international OEMs such as BMW, Ford, Nissan, Renault, Volkswagen, General Motors, Toyota and Mercedes Benz, are represented in the four South African automotive clusters (which will be discussed under 2.3.1)(AIEC, 2012: 16). Because the automotive supply chain operates according to a JIT (Just in Time) supply principle (Barnes, 2000a: 13; Ambe & Bardenhorst-Weiss, 2011: 349), these OEMs attract major, equally large international, Tier 1 automotive component suppliers such as Lear

Corporation, August Läpple, Robert Bosch, Faurecia, and Johnson Controls, to South Arica.

The South African automotive industry is discussed in greater detail below.

2.3 INTRODUCTION TO THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY

On Monday, January 4, 1897, barely a decade after Karl Benz and Gottlieb Daimler's first horseless carriages had been demonstrated to the public for the first time on German cobblestone, the first automobile, powered by the newfangled internal combustion motor, rode on South African soil. Mr John Percy Hess of Pretoria was the first person, who in 1896, decided to import a Benz "*Velo*" from Benz & Co of Mannheim, Germany, to South Africa. Mr Hess later became the sole agent for Benz and Co in South Africa. The car was shipped from Germany to Port Elizabeth and then transported to Pretoria (Schnetler, 1997: 1).

Ford, in 1924, was the first OEM (Original Equipment Manufacturer) to establish a subsidiary company in South Africa to assemble completely built up vehicles from completely knocked down (CKD) kits. It was followed by General Motors in 1926. The coastal location of Port Elizabeth in the Eastern Cape allowed for the easy importation of components.

In 1960, South Africa produced 87 000 vehicles, more than any other developing country in the world (Black, 1998: 5).

In 1975, 13 OEMs were operating in South Africa and produced 39 models, which were serviced by 300 component manufacturers. The GDP contribution of the automotive sector was 3,3% (ITAC, 1977: 8, 70).

The South African automotive industry incorporates the manufacturing, distribution, servicing and maintenance of motor vehicles and components. There are approximately 4 564 garages and fuel stations (the majority have service workshops as well) plus a further 1 898 specialist repairers; 1 374 new car dealerships hold specific franchises; an estimated 1 410 used vehicle outlets; 304 vehicle component manufacturers, together with approximately 150 others supplying the industry on a non-exclusive basis; 1 588 specialist tyre dealers and retreaders; 483 engine reconditioners; 192 vehicle body builders; 2 907 parts dealers and approximately 220 farm vehicle and equipment suppliers (AIEC, 2010: 72).

With regard to the vehicle production in 2009, South Africa was ranked 24th in the world with a global market share of 0,61%. The South African automotive industry also accounted for 87% of Africa's vehicle output (Galbraith, 2007: 5; Kaggwa, 2008: 2). Significant investment programmes driven by export plans have been implemented by all the OEMs since the commencement of the MIDP and capital expenditure by the OEMs from 1995 to 2009 amounted to R35,7 billion. However, South Africa is currently ranked 23rd in respect of global vehicle production with a market share of 0,66% in 2011 (AIEC, 2012: 84). The top 10 global automotive component companies are represented in South Africa as subsidiaries or joint ventures with South African based companies. These global automotive companies, in their ranking order of turnover are: Denso Corporation (1), Robert Bosch (2), Magna International (3), Continental (4), Delphi Corporation (5), Johnson Controls (6), Faurecia (7) and Lear Corporation (8) (AIEC, 2010: 72).

The OEMs in South Africa employ 28 147 persons, whilst the automotive component industry employs 68 500 persons (AIEC, 2012: 84). Total employment in the trade area, namely in vehicle sales, maintenance and servicing, currently amounts to about 200 000 persons. Further to this,

employment in the tyre manufacturing industry is of the order of 5 700 persons (AIEC, 2012: 84).

Due to the importance of the automotive industry to the South African economy, Government boldly supports the industry through incentives (such as the Motor Industry Development Programme and the African Growth and Opportunity Act) in order to ensure the sustainability and growth of the industry. However, OEMs and Tier 1 suppliers, who are responsible for the majority of vehicle and component exports, benefit the most from the MIDP. As the majority of Tier 2 automotive component suppliers are local South African companies, and they benefit the least from the MIDP, it is important to stimulate growth within this segment.

The common vision, formalised by Trade and Investment South Africa (TISA) for the South African automotive industry by all stakeholders (Government, business, and labour), is to determine the future direction and policies and to contribute to the South African economy in terms of growth, equity and the creation of employment (The dti, 2004: 6; AIEC, 2012: 11).

The South African automotive industry, inclusive of the complete supply chain, is of utmost importance to the South Africa economy (Lamprecht, 2006: 348; AIEC, 2012: 5) and is the most important manufacturing sector in South Africa.

Since the implementation of the MIDP in September 1995, the automotive sector has grown in stature to become the leading manufacturing sector in South Africa. The sector's contribution to the country's Gross Domestic Product (GDP) of R2 964 billion in 2011 amounted to 6,8% (AIEC, 2012: 14). A compounded annual growth rate of 20,5% in rand value terms for completely built-up vehicles (CBUs) and automotive components exports is achieved since 1995, through to 2011 (AIEC, 2012: 140).

Total automotive industry exports (CBUs and components) in rand value terms increased nearly twenty fold from the R4,2 billion in 1995 to R82,2 billion in 2011 (AIEC, 2012: 14). Market acceptance for South African manufactured CBUs and automotive components is high. A total of 2 133 384 vehicles have already been exported from South Africa since 1995 up to 2011. The total nominal export value of vehicles and automotive components over this period amounted to R685,3 billion (AIEC, 2012: 14). The export growth is accommodated by major investments in best practice assets and state-of-the-art equipment, skills upgrading, productivity gains and upgrading of the whole automotive value chain. Further competitive advantages of the South African automotive environment are detailed in Annexure A.

Even though the MIDP is the most important determinant of the existence of the South African automotive industry, it will be phased out in 2012 and the local industry will not be able to rely on government incentive to enhance competitiveness. Hence, in order to retain business, more competitive strategies (Barnes, 2000a: 9) should be pursued by the local industry role players.

In accordance with the above, Barnes (2000a; 2000b: 37) avers that the South African automotive component industry (especially downstream suppliers) finds itself under threat as a net result of:

- Increased international competition largely due to the rapid and sweeping liberalisation of the South African trade policy regime;
- A stagnant domestic market;
- The rapid erosion of local sourcing by South African OEMs as they become increasingly integrated into the global strategic operations of their parent companies.

The OEMs and the Tier 1 suppliers in the supply chain are usually of international descent and can capitalise on global knowledge and resources. However, the Tier 2 supplier (and suppliers lower in the supply chain) in the South African automotive industry is usually a South African owned business and does not enjoy the global backup and support compared to the OEM and Tier 1 supplier (Tolmay, 2004: 7). Further, with Government incentives such as the MIDP, which was introduced to uplift the South African automotive industry, benefits mainly the OEM and the Tier 1 supplier, while the locally owned Tier 2 automotive suppliers, usually benefit the least from these incentives (Tolmay, 2004: 7).

With the exception of the German owned OEMs and their global lead source component suppliers, the South African automotive industry is generally characterised by weak global networking links. The inward orientation of the South African automotive components sector was fostered by a history of state protectionism and import substitution industrialisation (ISI) during the apartheid era (Moodley, et al., 2001: 13). This inward focus was reinforced by trade isolation, disinvestment and the imposition of economic sanctions during the 1980s and early 1990s. As a result, nationally based producers are insulated from the international competition for a long time. Barnes (2000: 12) opines that "*uncompetitive firms with poor international linkages will disappear from the (components) industry, but those forms that improve their competitiveness and create appropriate linkages with international firms could benefit from burgeoning export sales".*

During the 1980s to 1990s, demand stagnated and total sales of less than 250 000 units per year were fragmented across seven different assemblers. During 1995, this resulted in a new government policy, namely the MIDP, which shifted the industry towards increasing integration into the supply chains of the international auto companies (The dti, 2004: 16). Tariffs on imports of vehicles and components (through the MIDP) were substantially reduced, a duty free allowance of 27 per cent of the wholesale value of

vehicles was granted to assemblers, the minimum local content provision was scrapped, and an import export complementation scheme was introduced to allow both vehicle and component manufacturers to offset import duties against exports.

The aim was to force the local auto industry to become more competitive (Barnes, 2000a: 37) and to encourage global auto component export from South Africa in order to gain duty free access to the domestic market. The new policy was specifically designed to encourage the incorporation of South African assembly and components production into global value chains. In particular, the abolition of local content requirements and the introduction of duty drawback arrangements encouraged firms to develop a division of labour between South African and other areas and to develop two way flows between them (The dti, 2004: 17; AIEC, 2012: 11).

The South African automotive industry, inclusive of OEMs and OESs (Original Equipment Suppliers), is represented in four important automotive clusters, which will be discussed in the next section.

2.3.1 SOUTH AFRICAN AUTOMOTIVE CLUSTERS

South Africa's vehicle assembly industry is concentrated in four of the country's nine provinces, namely Gauteng, the Eastern Cape and KwaZulu-Natal, and in the Western Cape where automotive development is also taking place increasingly.

The Gauteng automotive cluster represents the largest of the four clusters with four OEMs and 164 automotive component suppliers operating within its borders (AIEC, 2012: 17). The Gauteng automotive cluster contributes 41,1% towards all automotive vehicle exports (AIEC, 2010: 16).

The second largest automotive cluster is that of the Eastern Cape with three OEMs and 82 automotive component suppliers followed by the cluster in KwaZulu Natal with one OEM and 84 component suppliers. Although the Western Cape automotive cluster does not consist of any OEM activities, twenty automotive component suppliers reside within this cluster (AIEC, 2010: 16). See Table 2.2 for more comparisons between the four clusters.

Table 2.2: South African Automotive Clusters (AIEC, 2010: 16)

Automotive Clusters	Gauteng	Eastern Cape	KwaZulu-Natal	Western Cape
Capital	Johannesburg	Bisho	Msunduzi/Pietermaritzburg	Cape Town
Population (% of SA total of 49,32 million)	10,53 million (21,4%)	6,64 million (13,5%)	10,44 million (21,2%)	5,35 million (10,9%)
GDP contribution as % of SA total GDP of R2 423 billion	33,5%	7,8%	16,2%	14,5%
OEMs (manufacturing plants)	BWM SA Nissan SA Renault SA Ford Motor Company of Southern Africa incorporating the assembly of Mazda	Volkswagen of SA Mercedes-Benz SA General Motors SA	Toyota SA Motors	-
Number of automotive component companies	164	82	84	20
Motor vehicle parc as % of SA total vehicle parc of 8,58 million vehicles	38,5%	6,9%	14,0%	16,6%
Passenger car sales as % of total 2009 NAAMSA	34,6%	3,6%	11,1%	10,7%

sales				
LCV sales as % of total 2009 NAAMSA sales	29,9%	4,6%	12,6%	9,7%
MCH/HCV sales as % of total 2009 NAAMSA sales	35,4%	3,7%	15,7%	9,6%
Light vehicle exports by OEMs in the province as % of total 2009 exports	41,1%	36,0%	31,9%	-
Other key features	Richest province in the country OR Thambo International airport Automotive Supplier Park Automotive Industry Development Centre (AIDC) National government departments/Gauteng Economic Development Agency (Geda)	Ford engine plant Coega Industrial Development Zone East London Industrial Development Zone Automotive Industry Development Centre (AIDC) Eastern Cape Development Agency (ECDC)	Country's second largest provincial economy South Africa's major port – Durban Richards Bay Industrial Development Zone Durban Automotive Cluster (DAC) Durban Investment Promotion Agency (DIPA)	One of the world's greatest tourism attractions Western Cape Investment and Trade Promotion Agency (Wesgro) Centre for Automotive Engineering (US)

A small percentage of component manufacturers also reside in Mpumalanga and the North West Province (e.g., GaRankuwa and Brits).

The following car models are manufactured in the respective three automotive clusters (see Figure 2.1):

BMW (Rosslyn – Gauteng): 3-Series
Ford (Silverton – Gauteng): Ikon, Focus and Mazda 3
General Motors (Port Elizabeth – Eastern Cape): Corsa
Mercedes Benz (East London – Eastern Cape): C-Class
Nissan (Rosslyn – Gauteng): Tiida and Livina/Grand Livina
Renault (Rosslyn – Gauteng): Sandero
Toyota (Durban – KZN): Corolla and Fortuner
Volkswagen (Uitenhage – Eastern Cape): Polo series

In addition to the above, the following light commercial vehicles are also manufactured in South Africa:

Ford: Bantam and Ranger
Mazda: BT-50
General Motors: Corsa Utility and Isuzu KB
Mercedes Benz: Mitsubishi Triton
Nissan: Hardbody, NP200
Toyota: Hilux

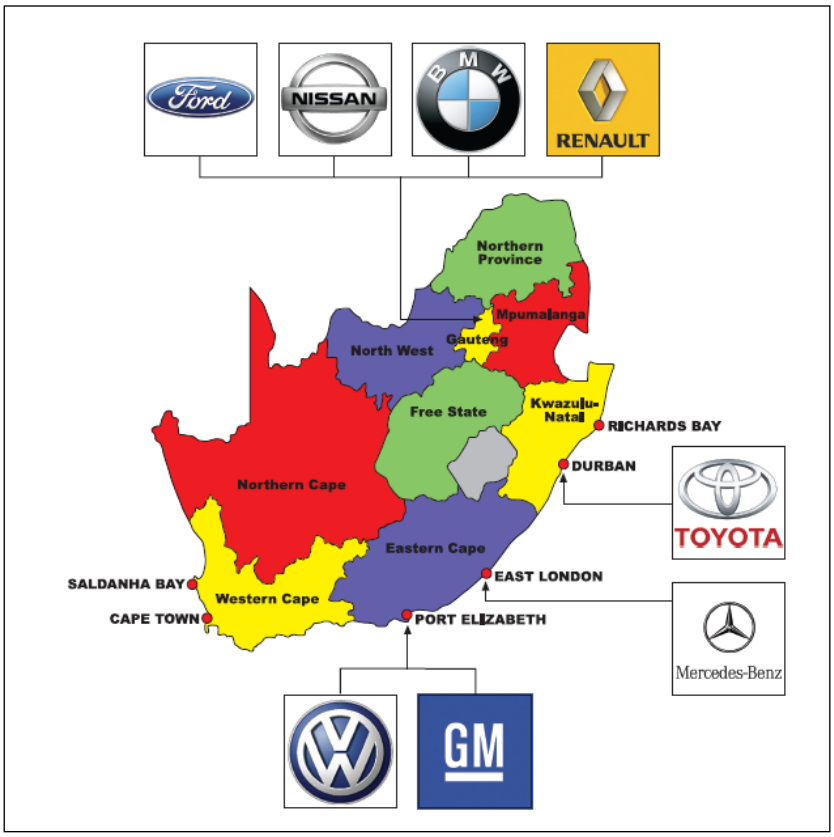


Figure 2.1: The South African OEMs (AIEC, 2010: 19)

Although not applicable to this study, the following medium, heavy and extra heavy commercial vehicle companies are represented in South Africa: Bell Equipment, DAF Trucks, Fiat, Isuzu Truck, Iveco, MAN, Maropolo, Mercedes Benz, Navistar International Trucks, Nissan, Nissan Diesel, Peugeot, Citroën,

Renault Trucks, Scania, Super Group, Tata, Toyota, Volkswagen, Volvo Trucks. Finally, the following bus manufacturers operate in South Africa: MAN, Mercedes Benz, Scania, VDL Bus and Coach (AIEC, 2012: 17).

A wide variety of automotive components are also manufactured in South Africa, either to support the OEM supply chain or for the purpose of after market supply. The automotive components manufactured in South Africa are listed in Annexure B. The supply chain of the South African automotive industry is discussed in greater detail below.

2.3.2 SUPPLY CHAIN: SOUTH AFRICAN AUTOMOTIVE INDUSTRY

According to the Harmonised System (HS), only code 8703 vehicles with the definition, *"Motor cars and other motor vehicles for the transport of persons"* (AIEC, 2011: 15), are addressed in this study. The HS was developed under the auspices of the Customs Cooperation Council (CCC), now known as the World Customs Organisation (WCO)(AIEC, 2011: 15). The intention of the HS is to serve as a universally accepted classification system for goods so that countries can administer custom programmes and collect trade data on exports and imports. It is designed to replace the local systems used by countries, allowing them to use a common classification system by which to track trade and apply tariffs (UNIDO, 2004).

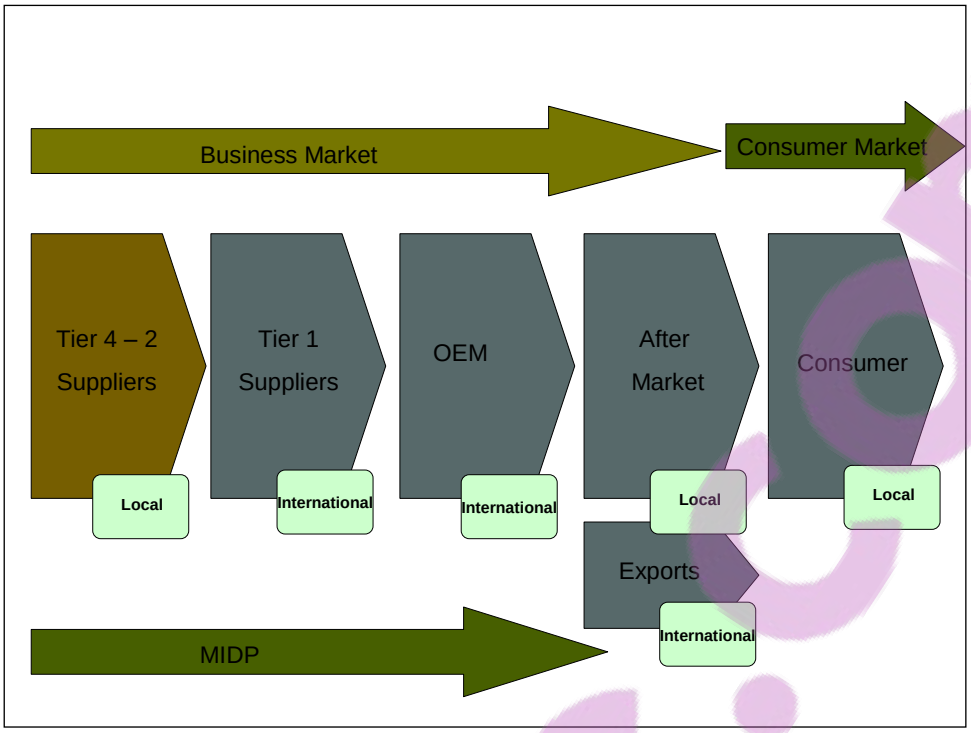


Figure 2.2: Automotive Supply Chain (Author)

A typical supply chain in the South African automotive landscape as depicted in Figure 2.2 comprises the following role players.

2.3.2.1 Assemblers (OEMs)

OEMs constitute the actual car assemblers such as BMW, Ford and Nissan. Automotive components are sourced by the OEMs from downstream Tier 1 to Tier 4 suppliers in the supply chain (Tolmay, 2004: 18; AIDC, 2004: 21; Ambe & Bardenhorst-Weiss, 2011: 340).

2.3.2.2 First Tier Suppliers

First Tier suppliers are firms that supply automotive components directly to the OEMs. They supply complete systems or subcomponents (Lamprecht, 2006: 7; Ambe & Bardenhorst-Weiss, 2011: 340) that is; drive trains, interior systems, etcetera, to the OEMs. Some of these suppliers have evolved into

global mega suppliers. First Tier suppliers require design and innovation capabilities; however, their global reach may be limited. In most cases they also possess design authority from the OEMs in order to carry out the required research and development work (Tolmay, 2004: 18; Lamprecht; 2006: 7). First Tier suppliers source components from second Tier suppliers.

2.3.2.3 Second Tier to Fourth Tier Suppliers

Second Tier suppliers are suppliers who work according to designs provided by OEM or global first Tier (Ambe & Bardenhorst-Weiss, 2011: 341) which will be referred to as the buyer from the Tier 2. Second Tier suppliers require process engineering skills in order to meet cost and flexibility requirements. In addition, the ability to meet quality requirements and obtain quality certification (ISO9000 and increasingly QS9000) is essential in order to remain in the market. These firms may supply just one market; however, there is some evidence of increasing internationalisation (Tolmay, 2004: 19). The focus of this study will fall on the improvement of competitiveness of second Tier suppliers by means of adding relationship value. Second Tier suppliers source components from third Tier suppliers who in return source from fourth Tier suppliers. Third Tier suppliers are firms that supply basic products, and fourth Tier suppliers usually suppy raw materials. At this point in the chain, firms compete predominantly on price. Second to fourth Tier suppliers (lower in the supply chain) are usually locally owned companies with no international shareholding.

2.3.2.4 OE (original equipment) or Aftermarket

A further important segment of the automotive value chain is the market for replacement parts. This is the sector into which many firms in developing countries first moved, even before local assembly sectors were developed. Nowadays, there is a substantial international market in the trade of aftermarket products. Companies in this section compete predominantly on

price. Access to cheaper raw materials and process engineering skills is important. Innovation is not required because designs are copied from the existing components; however, reverse engineering capability and competence to translate designs into detailed drawings are important. OE branded parts are sourced and distributed through the OEM. This department is normally referred to as the P&A (Parts and Accessories) department (Tolmay, 2004: 19; AIEC, 2012: 23). As part of aftermarket is a segment called independent aftermarket (Ambe & Bardenhorst-Weiss, 2011: 340). The independent aftermarket also supplies replacement parts to the automotive industry. However, distribution is independent from OEMs and parts are not branded as Original Parts (e.g., Toyota). A competitive pricing strategy is the main requirement as the industry is extremely competitive (Tolmay, 2004: 20).

2.3.3 COMPONENT SOURCING IN THE AUTOMOTIVE SUPPLY CHAIN

In comparison to its international competitors the South African automotive industry has a typical supply chain. Figure 2.3 illustrates the supply chain from the 3rd Tier to 2nd Tier to the 1st Tier supplier to the OEM (Lamprecht, 2006: 16); Ambe & Bardenhorst-Weiss, 2011: 340). The *"Tier"* refers to the level represented in the supply chain (Tolmay, 2004: 18).

The focus of this study falls on the requirements of the customer in particular, namely the international Tier 1 OES from the local Tier 2 OES (Ambe & Bardenhorst-Weiss, 2011: 340).

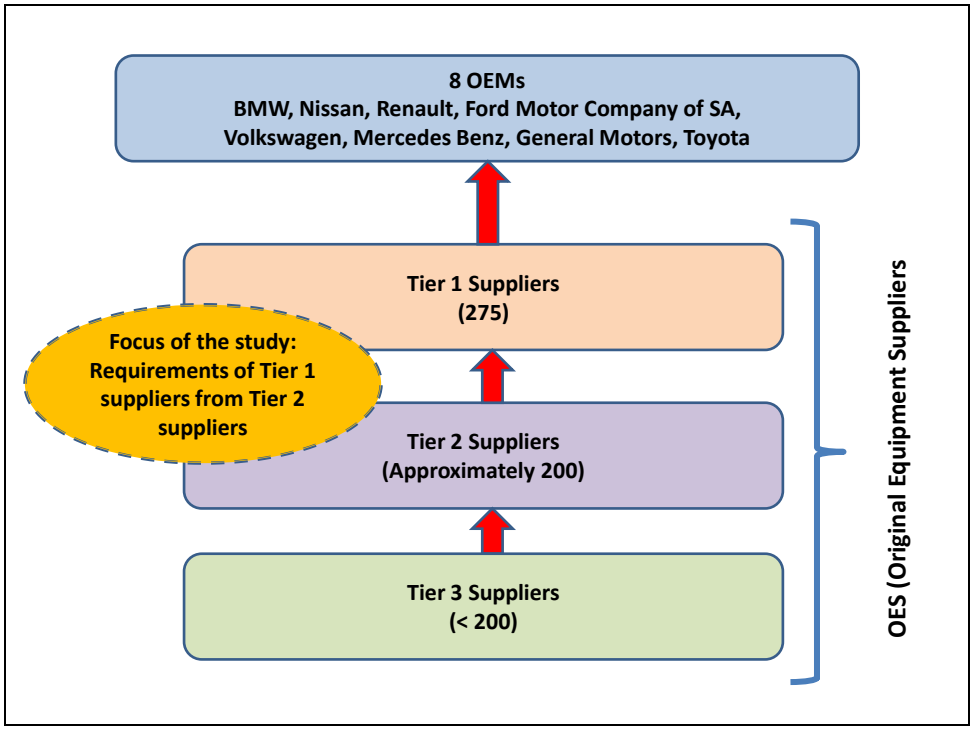


Figure 2.3: The South African Automotive Supply Chain Tiers (Tolmay, 2004: 18)

As illustrated in Figure 2.3 approximately 275 Tier 1 suppliers of automotive components supply the OEMs. These Tier 1 suppliers usually consist of large international organisations. Approximately 200 Tier 2 (AIEC, 2012: 23) suppliers provide components to the Tier 1 suppliers and various shortcomings of locally owned Tier 2 suppliers are usually highlighted in the industry (Barnes, 2000a: 18). Tier 2 suppliers are usually South African-owned companies. A further 200 Tier 3 and Tier 4 suppliers support the Tier 2 suppliers (Tolmay, 2004: 18; Ambe & Bardenhorst-Weiss, 2011: 340). Owing to access to global technology and resources, OEMs and Tier 1 suppliers are usually large multinational organisations which comply with the world standards in terms of continuous improvement, lean manufacturing, customer relationship management, etcetera. The smaller suppliers (Tier 2 – 4) usually comprise of limited resources (financial, design capacity, marketing capabilities), which in return impact negatively on their profitability.

For the purpose of this study the focus will specifically fall on what is required by the buyer (Tier 1 supplier) from the Tier 2 supplier in the supply chain regarding relationship value (see Figure 2.3).

In order to understand the South African supply chain, the component sourcing process will be discussed in further detail below.

Various South African automotive component manufacturers aspire to supply the automotive industry or to expand their operations. However, it is in no way simple for automotive component suppliers to supply to OEMs, especially for locally owned Tier 2 suppliers. As the Tier 2 suppliers are reliant on Tier 1 customers (buyers) for orders, they need to satisfy sourcing requirements determined by Tier 1 customers. They usually lack the necessary capabilities, such as marketing skills, which hampers their competitiveness. This study investigates how the Tier 2 can provide a higher value offering to the customer in the supply chain through relationship value (Ambe & Bardenhorst-Weiss, 2011: 340). The modus operandi to become an automotive component supplier is as follows (Tolmay, 2004: 59):

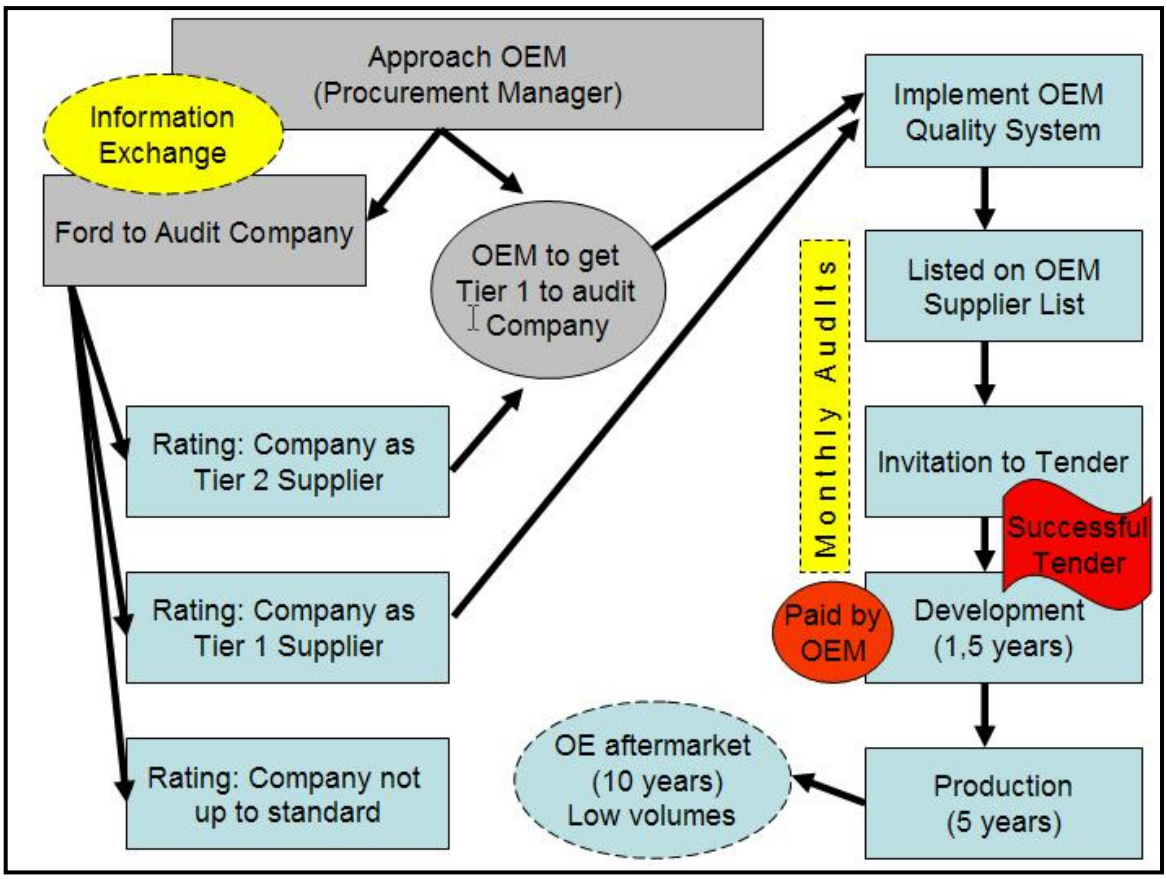


Figure 2.4: Procurement Process in the automotive industry (Tolmay, 2004: 59)

As illustrated in Figure 2.4 the prospective component supplier can approach the OEM (e.g., Ford) through the procurement manager to introduce the company. The value of the personal contact is that information is shared with regards to market activities and that personal relationships are established. Should the new supplier reveal attractive propositions to the OEM, an audit team perfors an audit on the automotive component supplier to evaluate their production and management activities.

The audit reveals whether a component supplier is capable of being developed as a Tier 1 or Tier 2 supplier. If it is more applicable to rate the component supplier as being Tier 2, the OEM can request their respective Tier 1 suppliers to audit the company. Hence, a close relationship between the Tier 1 and Tier 2 suppliers is required and therefore the Tier 2 supplier should perform at optimum levels in order to comply with international

competitive standards. A distinctive means to differentiate an organisation is to provide higher relationship value to the customer, which will be discussed in chapter 3.

After a successful evaluation as a Tier 1 or Tier 2 supplier, the component supplier must implement the quality system of the OEM (essentially this is ISO/TS 16949 and ISO14001). With the successful accreditation of the quality system, the component supplier is listed as an OEM supplier. It should be noted that a listed OEM supplier is under no circumstances secured of any contracts but positions itself to tender for contracts. The OEM executes monthly audits to ensure conformance to the quality system (Tolmay, 2004: 59).

With the introduction of new vehicle models, listed suppliers are invited to tender for certain components. This is called a Request for Quotation (RFQ). Successful candidates then enter the product development phase and are compensated during this (approximately) 18 month period. Production will continue for five years (the life of the model platform), after which the OE aftermarket is supplied (in low quantities) for an additional period of 10 years.

Component pricing is strictly prescribed by the OEM and Tier 1 suppliers with very few options for negotiation by the Tier 2 suppliers.

It should also be noted that in general it is required by all the OEMs that component suppliers reduce their prices of the components during the life of the model. It is expected by OEMs that First Tier suppliers cut their costs by 4 – 5 % annually (Lamprecht, 2006: 34). In return, Tier 1 suppliers demand annual price reductions from lower Tier suppliers (Lamprecht, 2006: 34). This is achieved through continuous improvement activities.

OEMs can source from numerous automotive component suppliers locally and internationally. In order to win contracts, the automotive component suppliers must demonstrate that they can add more value than rivals in the global automotive arena (Tolmay, 2004: 60).

However, during studies on the competitiveness of South African automotive suppliers (Barnes, 2000a: 37; Tolmay, 2004: 20), reveales that suppliers lower down in the supply chain are less competitive (Naude & Badenhorst-Weiss, 2011: 279). A dramatic decrease in terms of dynamics and competitiveness is prevalent among Tier 2 to Tier 4 suppliers (AIDC, 2004: 21). These specific shortcomings of locally owned Tier 2 suppliers are addressed in this study.

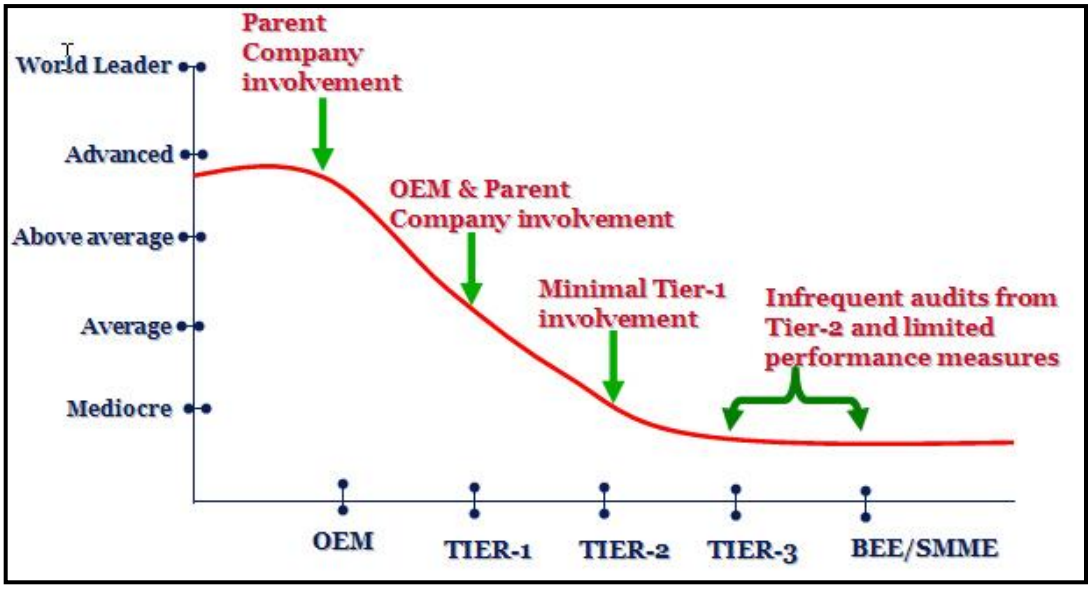


Figure 2.5: Global competitiveness of the South African automotive supply chain (AIDC, 2004: 21)

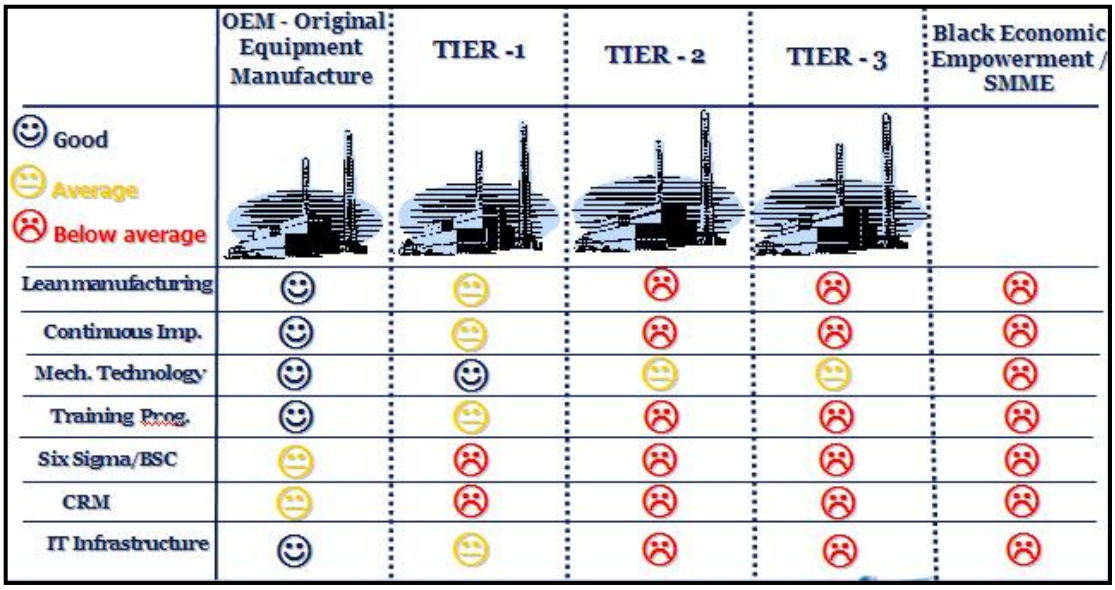


Figure 2.6: Dynamics of South Africa's supply chain (AIDC, 2004: 21)

According to a study by the AIDC (Automotive Industry Development Centre) (see Figure 2.5 and Figure 2.6), important sourcing aspects such as lean manufacturing, technology and training improvement, six sigma (quality standards), CRM (Customer relationship management) and IT requirements, do not score well for Tier 2 to Tier 4 suppliers (Tolmay, 2004: 21). The current study specifically addresses the shortcomings of local Tier 2 suppliers

and investigates which relationship value requirements are expected by international Tier 1 buyers from the local Tier 2 suppliers.

However, notwithstanding the mentioned facts, the South African automotive industry, including local component suppliers, still represents a strong industry that contributes greatly towards the economy of South Africa (AIEC, 2012: 24). This scenario is mainly due to the introduction of government incentives with the aim to benefit the South African automotive industry.

2.4 SOUTH AFRICAN AUTOMOTIVE INDUSTRY INCENTIVES

The South African automotive industry has a history of protectionism which has hampered its competitiveness. During the late 1980s, the Government started seeking more avenues to make the industry more competitive (Black, 2001: 3) and to encourage exports to positively contribute towards the trade balance and more rational industry structure.

The most important automotive incentives, namely the MIDP as well as the AGOA, also impacting positively on the automotive export performance, are resulting in optimistic trade balance results. These are discussed in further detail below:

2.4.1 MIDP (MOTOR INDUSTRY DEVELOPMENT PROGRAMME)

The major reason for the successful existence of the South African automotive industry can be attributed to a government incentive namely, the MIDP (AIEC, 2012: 84). The MIDP is a sector specific part of government's industrial policy to rapidly increase the international competitiveness of the domestic automotive industry and to facilitate increased exports of vehicles and components (Lamprecht, 2006: 1; AIEC, 2012: 84; Ambe & Bardenhorst-Weiss, 2011: 356).

As mentioned previously, the MIDP expiring in 2012 and thereafter the South African automotive industry will be threatened by global suppliers from low cost manufacturing countries such as China, India and other eastern countries. This poses a major problem for the downstream suppliers in the automotive supply chain. These smaller suppliers are usually of local origin and therefore it is essential that their survival and growth be secured.

The MIDP was implemented, with effect from 1st September 1995, to reshape the future direction of the South African automotive and associated industries (Lamprecht, Rudansky-Kloppers & Strydom, 2011: 56). The MIDP is taking into account the international realities facing the motor industry in South Africa, namely trade liberalisation, globalisation of markets against the background of rapid technological change, rising customer expectations, and markets which are becoming increasingly demanding and fast moving in terms of fashions and trends.

Since the implementation of the MIDP in 1995, the South African automotive sector has grown in stature to become one of the leading manufacturing sectors in the country's economy. It is aimed at the development of an internationally competitive and growing automotive industry which is able to (The dti, 1997a: 2):

- Provide high quality and affordable vehicles and components to domestic and international markets;
- Provide sustainable employment through increased production; and
- Make a greater contribution to the economic growth of the country by increasing production and achieving an improved sectoral trade balance.

These national objectives are achieved by (The dti, 2004 17):

- Encouraging a phased integration into the global automotive market;
- Increasing the volume and scale of production by the expansion of exports and gradual rationalisation of models produced domestically; and
- Encouraging the modernisation and upgrading of the automotive industry in order to promote higher productivity and facilitate the global integration process.

The major policy instruments to achieve these objectives are (The dti, 2004: 17):

- A gradual reduction in tariff protection so as to expose the industry to greater international competition;
- The encouragement of higher volumes and a greater degree of specialisation by allowing exporting firms to earn rebates of automotive export duties; and
- The introduction of a range of incentives designed to upgrade the capacity of the industry in all spheres.

Although the MIDP are realising positive results, it is also criticised as discussed below.

2.4.1.1 Arguments against the MIDP

Although the MIDP is widely praised by industry, it is also important to mention the counter arguments.

Professor Frank Flatters published various papers fiercely criticising the MIDP after his study undertaken for a USAID (United States Agency for

International Development) funded Trade Capacity Project on SADC (Southern African Development Community) countries. Professor Flatters argues that, since the value of the incentives depends on the domestic mark up over import prices, their costs are borne by South African vehicle buyers and users. The incentives (tantamount to subsidies) do not appear in the government budget and are a cost to the budget only to the extent that they represent import forgone. Since the tariffs and duty reduction programmes are designed only for the domestic industry, it is debatable whether they would remain in place, at least at their current levels, in the absence of a local industry.

Further statements made by Professor Flatters include (Flatters, 2004a):

- The SADC market, as well as South Africa's MIDP, are far too small to support a competitive motor industry. South Africa's MIDP provides substantial investment and export incentives that have succeeded in reorienting its industry to global markets. Without similar incentives no other SADC member state would be able to attract global investors in this sector;
- This MIDP could not be generalised to any other member state individually or collectively. The duty pools available are simply too small to replicate the South Africa model;
- SADC preferential tariff phase downs in this sector are unusually slow;
- South African government procurement policies have created barriers to trade and affected investment decisions in SADC; and
- Significant relaxation of rules of origin and an acceleration of preferential tariff reductions on motor vehicles and components might offer opportunity for development of niche sectors, especially in after market components in some member states.

Although counter arguments should be taken into consideration, it is the opinion of the author of this research and that of Lamprecht (2006), Barnes (2000b), Black (2001), and Kaggwa (2008) that the benefits of the MIDP outperform the negative points.

The view of the author is that the MIDP should not be viewed as the saviour of the South African automotive industry. The South African automotive industry should rather investigate alternative ways to be competitive in the global arena. As mentioned in the next chapter, the automotive industry is a complete global industry and therefore trade barriers are falling away and the South African automotive industry should not be caught up in the protective genre of the past. In order to survive in the global arena, compliance with international competitive strategies should be sought.

The main drive behind the increase in automotive exports, both vehicles and components, is mainly due to the MIDP. The MIDP is regulated by the AIEC.

2.4.1.1.1 AIEC (AUTOMOTIVE INDUSTRY EXPORT COUNCIL)

The AIEC is the governing body of the MIDP and therefore plays a crucial role in the strategy formulation of the South African automotive industry.

- **Vision:**

  The vision of the AIEC is to enhance the international competitiveness of the South African automotive industry and, for the automotive sector as the leading manufacturing sector in South Africa, to upgrade the industry's export value chain as well as cross cutting value chains and to make a positive contribution to economic growth and employment in South Africa (AIEC, 2012: 5).

- **General:**

  Export Councils constitute the prime delivery vehicle used for stimulating export growth and deepening the export base. This format was initiated by Trade and Investment SA in a number of key sectors and is also aimed at assisting Small Medium and Micro Enterprises (SMMEs) and Broad Based Black Economic Empowerment (BBBEE) companies to enter the export market successfully. Export Councils communicate with the National Export Advisory Council, of which the Minister of Trade and Industry is the chairman, regarding the obstacles and proposals that may affect the ability of exporters to function successfully (AIEC, 2012: 5).

The AIEC was established at the end of 1999. Its purpose was to provide a central body to assist companies in the automotive sector that are currently exporting, may be interested in exporting in future, or may become capable of exporting in the future. The end result of the activities of the AIEC will be to broaden the export base by bringing in more companies that export directly, either in their own right or by being suppliers to exporting companies. In addition, the objective will be to increase the value of the exports of automotive products (AIEC, 2012: 6).

The customers and stakeholders of the AIEC comprise all the automotive industry stakeholders as well as The dti head office, The dti foreign economic representatives, and global players abroad. The needs of members are primarily twofold, namely, research and information, and practical assistance with exhibitions and trade missions. These needs constitute the basis of the assistance provided (AIEC, 2012: 6).

Further to the MIDP, the AGOA incentive also greatly contributes towards the prosperity of the South African automotive industry. The AGOA incentive will be briefly discussed below.

2.4.2 AGOA (AFRICAN GROWTH AND OPPORTUNITY ACT)

The AGOA incentive represents a non reciprocal gesture by the USA aimed at liberalising trade and assisting growth and development of sub Saharan African countries by extending duty free and quota free access into the USA market in respect of a broad range of products for a period of eight years. An "*AGOA 3"* is now working its way through the USA Congress, which would extend the general market provision until 2015. While South Africa, together with 36 other African countries, had been designated eligible in terms of the Act, two were subsequently excluded and one added. In the order of 95% of traded products, comprising 6 500 products, of which 1 837 are new under AGOA, these currently qualify for duty free access into the USA market (The dti, 2004: 90; AIEC, 2012: 31).

Through AGOA, the South African automotive industry benefits from huge opportunities to access the largest consumer market in the world on a duty free and quota free basis, on approved products, for a period of eight years. The double benefit of the MIDP support and duty free access to the USA should make it attractive for OEMs to consider additional manufacturing operations in South Africa with a view to exporting to the USA. Automotive quantifying products eligible in terms of AGOA include (The dti, 2004: 91; AIEC, 2012: 31):

- Cars and passenger vehicles
- Light, medium and heavy commercial vehicles and buses
- Road tractors for semi trailers
- Chassis fitted with engines

- Bodies, including cabs
- Silencers and exhausts
- Automotive bearings
- Vulcanised rubber belting, transmission belts, fan belts
- Steel springs for motor vehicle suspensions.

As a result of the MIDP and AGOA, the South African automotive industry makes a large contribution towards exports. This in turn exerts a positive impact on the trade balance of the country.

2.5 AUTOMOTIVE INDUSTRY'S CONTRIBUTION TO THE SOUTH AFRICAN TRADE BALANCE

A positive or favourable trade balance is important for economies as well as for market segments (Ambe & Badenhorst-Weiss, 2011: 337). The South African automotive industry is a major contributor towards the South African trade balance and therefore it is important to secure the competitiveness of the industry. The overall picture in respect of the South African automotive sector's trade balance under the Motor Industry Development Programme (MIDP) reflects that exports have increased very rapidly but that imports have expanded rapidly as well. Since the introduction of the MIDP in 1995, until 2012, automotive component exports remained the key driver behind the automotive industry's trade balance (AIEC, 2012: 24). As a result, the South African automotive industry is a major contributor towards the country's trade balance through the exports of Completely Built Up (CBU) Units and automotive components. Hence, exports of the automotive industry along with its export destinations are discussed in greater detail below.

2.5.1 EXPORT PERFORMANCE OF THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY

The South African automotive industry's trade deficit has widened to R30,7 billion in 2010 compared to the R18,9 billion in 2009. The overall picture in respect of the domestic automotive industry's trade balance under the MIDP reflects that not only exports but also imports have expanded rapidly. Since the introduction of the MIDP, until 2007, automotive component exports remained the key driver behind the automotive industry's trade balance. In 2008, owing to the record vehicle exports of 284 211 units, the vehicle export value exceeded the automotive component export value for the first time, a trend that continued into 2010 (AIEC, 2011: 21).

Despite the significant increase in exports of CBUs and automotive components in recent years, the South African automotive industry has remained a net user of foreign exchange. This resulted from the importation of products not manufactured in the relatively small domestic market.

Capital-intensive components such as engines, gearboxes and interior electronic components are mainly imported and the remainder is sourced from the domestic market. The industry's reliance on global designs, technologically sophisticated plant and machinery, and high-value automotive components, contributes to the large outflow of foreign exchange. In addition, the importation of replacement parts has increased substantially in recent years in order to support the increased imports of vehicles.

The export performance of the South African automotive industry is significant and the value of automotive exports exceeded gold exports for the first time in 2001 and has done so since 2003 as revealed in Table 2.3: Automotive exports versus gold exports (AIEC, 2008: 14)

Table 2.3: Automotive exports versus gold exports (AIEC, 2008: 14)

YEAR	GOLD EXPORTS (R MILLION)	AUTOMOTIVE EXPORTS (R MILLION)
1995	R21,484	R4,218
1996	R27,149	R4,801
1997	R25,784	R6,715
1998	R25,549	R9,995
1999	R23,700	R14,754
2000	R27,838	R23,358
2001	R29,276	R29,986
2002	R43,643	R40,110
2003	R32,106	R40,732
2004	R28,698	R39,233
2005	R27,023	R45,277
2006	R35,470	R55,103
2007	R29, 898	R67 600

The important information regarding vehicle component exports will be discussed in further detail.

2.5.1.1 Exports of vehicles

The South African automotive industry exported left and right hand drive vehicles to 77 destinations in 2010. The top markets were the USA with 58 370 units followed by the UK with 39 865 units, Japan with 21 347 units, Australia with 18 112 units and France with 13 389 units (AIEC, 2011: 48) being exported to them as indicated in Table 2.4.

In 2010, the 239 465 CBU exports from South Africa comprised 75,8% or 181 654 passenger cars, 23,8% or 56 950 light commercial vehicles and 861 or 0,4% medium and heavy commercial vehicles and buses. Passenger car exports as a percentage of passenger car production totalled 61,5% in 2010

compared to the 3,7% in 1995 (AIEC, 2011: 48). This trend continued in 2011 as the 272 457 CBU exports from South Africa comprised of 68,8% or 187 529 passenger cars, 30,9% or 84 125 light commercial vehicles and 803 or 0,3% medium and heavy commercial vehicles and and buses (AIEC, 2012: 52).

Opportunities presented by the AGOA, which is operational since 1 January 2001 by the USA for the benefit of 37 African countries, allows for the duty and quota free access of a variety of products, including vehicles, to the USA market. This trade incentive serves as an impetus for the automotive sector's export drive to the USA and hence, the country becoming the top destination for South African manufactured light vehicles. The Mercedes Benz C-class and the BMW 3-series are currently exported to the USA (under the AGOA).

The important objective of the MIDP in terms of model rationalisation is not to merely reduce the number of models but also to increase the volumes of those models assembled in the domestic market as well as the local content, in line with average volume increases. The average volumes of passenger cars per model produced by the OEMs increased from 11 500 units in 1995 to 29 900 units in 2010. Nonetheless, the local content remains stable (AIEC, 2011: 48).

Table 2.4: Light Vehicles (Passenger Cars and Light Commercial Vehicles) Exports (AIEC, 2011: 49)

Country	2006	2007	2008	2009	2010
Total (R billion)	**23,9**	**27,8**	**48,3**	**32,2**	**37,8**
Ranking of Exporters	**Toyota** **BMW** **VW** **MBSA** **Ford**	**Toyota** **BMW** **VW** **MBSA** **Ford**	**Toyota** **VW** **BMW** **MBSA** **GM**	**Toyota** **BMW** **MBSA** **VW** **Ford**	**Toyota** **BMW** **MBSA** **VW** **Ford**
Total (Units)	179 320	170 587	282 984	174 116	238 604
USA	11%	13%	30%	41%	35%
Germany	1%	1%	2%	13%	22%
Japan	29%	26%	14%	8%	8%
Australia	20%	20%	13%	7%	7%
Algeria	3%	3%	2%	4%	3%
France	2%	2%	2%	2%	2%
Nigeria	1%	2%	4%	4%	2%
UK	12%	3%	2%	1%	2%
Korea Rep South	-	-	-	1%	1%
Zimbabwe	1%	2%	1%	1%	1%
Other	20%	28%	30%	18%	17%
EU	20,2%	15,1%	16,5%	21,1%	32,8%
NAFTA	10,9%	13,9%	30,0%	41,4%	35,5%
SADC	4,7%	5,%	5,2%	5,4%	4.1%

Apart from vehicle exports the South African automotive industry also exports large quantities of automotive components.

2.5.1.2 Exports of automotive components

Automotive component exports increased by R2,94 billion or 10,6% to R30,8 billion in 2010, from the R27,9 billion in 2009 (see Table 2.5). However, recognising the fact that the Rand strengthened by an average of 15%, the growth in foreign currency terms was 30%, a remarkable recovery from the depressed 2009 level, and only 17% below the 2008 peak in real terms. The focus of exporters tends to fall on high value domestically beneficiated automotive components that consume as little transport and space as possible. Catalytic converters remain the main component exported under the MIDP (AIEC, 2011: 50).

The popularity of catalytic converters, the main purpose of which is to reduce harmful emissions from vehicles, is continuing to grow, owing to increasingly stringent emission legislation in Europe and the USA. South Africa supplies approximately 15% (AIEC, 2001: 50) of the global market with these converters.

The top automotive component export statistics for the period 2006 – 2010 are depicted in Table 2.5.

Table 2.5: Automotive Component Exports (AIEC, 2011: 51)

Country	2006	2007	2008	2009	2010	% of 2009 Total	2009 Ranking
Total (R million)	30 052	39 106	44 055	27 853	30 802	100%	
Catalytic Converters	15 810	21 683	24 267	12 280	14 761	47,9%	1
Stitched leather seat parts	2 549	2 760	3 084	2 357	2 898	9,4%	2
Silencers / exhaust pipes	407	1 705	1 913	1 283	1 696	5,5%	3
Engine parts	984	1 092	1 853	1 554	1 505	4,9%	4
Tyres	1 220	1 96	1 676	1 355	1 133	3,7%	5
Engines	1 216	1 080	1 045	605	965	3,1%	6
Automotive Tooling	272	520	518	464	447	1,5%	7
Transmission shafts/cranks	351	556	782	503	415	1,3%	8
Road wheels and parts	681	772	694	388	383	1,2%	9
Filters	218	275	316	341	337	1,1%	10
Shock absorbers	1	12	172	261	329	1,1%	11
Automotive Glass	321	295	315	403	305	1,0%	12
Radiators	365	368	350	384	286	0,9%	13
Clutches / shaft couplings	81	152	166	194	270	0,9%	14
Gauges / Instruments / Parts	184	248	328	291	241	0,8%	15
Lighting / signalling / wiping	63	164	210	165	229	0,7%	16
Steering wheel / column / box	69	150	287	169	170	0,6%	17
Batteries	83	115	169	172	116	0,4%	18
Axles	375	273	279	186	111	0,4%	19
Brake parts	120	138	124	105	93	0,3%	20
Ignition / starting equipment	174	204	191	126	83	0,3%	21
Jacks	18	60	88	110	83	0,3%	22
Body parts/panels	115	127	122	75	75	0,2%	23
Gaskets	45	70	103	84	75	0,2%	24
Alarm systems	81	97	92	53	73	0,2%	25

Gear boxes	**113**	**86**	**84**	**80**	**67**	**0,2%**	**26**
Wiring harnesses	**208**	**198**	**205**	**93**	**51**	**0,2%**	**27**
Air conditioners	**11**	**21**	**29**	**19**	**35**	**0,1%**	**28**
Seat belts	**60**	**62**	**48**	**41**	**33**	**0,1%**	**29**
Springs	**38**	**44**	**44**	**35**	**30**	**0,1%**	**30**
Car radios	**377**	**589**	**14**	**43**	**20**	**-**	**31**
Seats	**7**	**8**	**8**	**6**	**5**	**-**	**32**
Other parts	**3 435**	**3 986**	**4 479**	**3 628**	**3 482**	**11,3%**	

Table 2.6 reveals the major destinations for the top component exports from South Africa. The range, in respect of the diversity of automotive products, and reach, in respect of the number of destinations of the exports, are increasing. Many of the domestic automotive component manufacturers have links with European-based companies, largely because the German OEMs exerted pressure on their European suppliers to form links with South African companies when they instituted their export programmes. The EU extensively displaces its own production to lower-cost developing countries such as South Africa. The level of industry integration increases the export expansion and the degree to which it improves competitiveness.

Table 2.6: Top10 Automotive Export Destinations (AIEC, 2011:52)

Country	2006	2007	2008	2009	2010
Germany	**29,9%**	**28,5%**	**33,1%**	**33,2%**	**35,8%**
USA	**9,7%**	**8,0%**	**7,7%**	**6,0%**	**8,1%**
Spain	**11,5%**	**10,4%**	**9,8%**	**6,6%**	**6,7%**
UK	**9,3%**	**7,8%**	**8,4%**	**7,1%**	**6,3%**
Poland	**2,9%**	**2,7%**	**3,2%**	**3,5%**	**4,0%**
Belgium	**4,4%**	**5,0%**	**5,2%**	**4,6%**	**3,8%**
Brazil					**2,8%**
France	**7,0%**	**7,8%**	**5,8%**	**4,0%**	**2,8%**
Netherlands	**1,8%**	**2,4%**	**2,3%**	**2,1%**	**2,2%**
Zambia	**1,1%**	**1,3%**	**1,5%**	**2,2%**	**2,1%**
Other	**22,1%**	**21,8%**	**22,5%**	**28,3%**	**25,4%**

It is evident from the above that the export of automotive components contributes largely towards the trade balance and because of the global nature of the automotive industry; all efforts should be made to retain the industry at large.

2.6 CHALLENGES FACING FOR THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY

In the light of the complicated business environment brought about by globalisation and a shift from a transactional to a relationship orientation, the supply chain dynamics have shifted dramatically in the automotive industry (Henke, Parameswaran & Pisharodi, 2008: 288). Globalisation is bringing about shorter life cycles, rapidly changing customer product buying patterns, and more knowledgeable and sophisticated customers; therefore adding value through long term relationships seems to be a prerequisite for competitive advantage (Jüttner & Wehrli, 1994: 54; Li, 2010: 316; Rehman, 2012: 598; Lindgreen, Hingley, Grant &Morgan, 2012: 208).

Downstream suppliers rely heavily on upstream suppliers for business and therefore strategies should be fostered by downstream suppliers in order to retain business (Henke, et al., 2008: 287). With this in mind, interaction and communication through long term relationships enhanced by trust and commitment, form a crucial part of buyer-supplier relationships in the automotive industry (Henke et al., 2008: 288 – 289; Alqahtani, 2011: 586; Rehman et al 2012: 600; Lindgreen et al, 2012: 210).

Business firms are increasingly concentrating on their core competencies and are externalising traditionally important activities such as manufacturing, design and logistics (Möller & Törrönen, 2003: 109). This impacts on the automotive supplier in the supply chain as both the buyer and supplier often have to make substantial adaptations and commitment of resources in the

development of partnering supplier relationships (Möller & Törrönen, 2003: 109; Alqahtani, 2011: 586; Rehman et al 2012: 600; Lindgreen et al, 2012: 210).

Strong supplier relationships in areas that have high strategic relevance for the customer firm lead to hierarchical supply chain networks comprising several tiers of suppliers, such as the automotive industry (Möller & Törrönen, 2003: 109). Therefore, buyers are reducing the number of their suppliers in order to manage the supply chain more effectively. This reduction of suppliers (Ulaga, 2003: 677) and the focus on strategic competencies are also prevalent in the South African automotive supply chain (Barnes, 2000b: 38).

In the light of globalisation and the reduced supplier base, customers need to decide whether to invest in a new supplier relationship, to maintain and develop a valued relationship, or to divest from a low-value relationship (Ulaga, 2003: 677). Ulaga and Eggert (2006: 119) reinforce this argument when they suggest that vendors should constantly add relationship-based value or they might face the alternative of being pushed into the role of a backup supplier, capturing only a small share of a customer's business. By delivering superior relationship value to customers, a supplier can sustain long term relationships with customers (Ulaga & Chacour, 2001: 526).

As the global as well as the South African automotive industry is currently under immense pressure, OEMs are increasingly moving vehicle manufacturing down the supply chain to the point that suppliers are responsible for two-thirds or more of the content of many car models globally. This renders both the component suppliers and the OEMs vulnerable if the relationships between them deteriorate. In far too many cases these values are based on the principle of coercion, rather than collaboration. The attitudes of the OEMs are reflected in their financial performance and the value of their companies. A positive sign is that more OEMs have realised

that such damage to their supply chains will be to their own detriment. The emphasis is starting to move from forcing cost reductions by suppliers to collaborating with them to reduce costs, while preserving viable margins (Lamprecht, 2006: 55).

In summary, the South African automotive industry is faced with the challenges as discussed below:

2.6.1 COMPETITION FROM LOW COST MANUFACTURING COUNTRIES

The South African automotive component role players are faced by constant global competition. Increasingly countries are offering investment incentives with the increase of competition (Moodley, et al., 2001: 12; Kaggwa, 2008: 7; Lamprecht, Rudansky-Kloppers & Strydom, 2011: 56) and OEM's are resorting to low cost countries such as China (Lamprecht, 2006: 56) to benefit from low cost production.

2.6.2 PHASING OUT OF MIDP

The MIDP will phase out in 2012 and will not be replaced with an incentive scheme with the same advantages (it is contradictory to the WTO). Criticism against the MIDP include the incentive cost to Government, limited job creation realised thus far, deteriorating industry trade balances (increased trade deficit from R12,2 billion in 1995 to R27 billion in 2005), vehicle affordability, and skewed benefits of the programme in favour of the OEMs (Kaggwa, 2008: 7). Hence, more pressure will be bestowed upon the local automotive industry for survival (Lamprecht, 2006: 167; Tolmay, 2004: 71).

2.6.3 LACK OF TIER 2 SUPPLIER PERFORMANCE

As South African automotive suppliers face various challenges in the global automotive arena, such as competition from low cost countries (Lamprecht, Rudansky-Kloppers & Strydom, 2011: 56), and the phasing out of the MIDP, creative initiatives are essential to secure the retention of their business.

Internationally owned OEMs and Tier 1 suppliers enjoy the financial benefits from the MIDP, while locally owned Tier 2 suppliers benefit the least from these incentives (Tolmay, 2004: 7). Also, because of their global technology and resource accessibility, OEMs and Tier 1 suppliers comply with world standards in terms of continuous improvement, lean manufacturing, advanced supply chain management, customer relationship management and more. Local Tier 2 suppliers usually consist of smaller organisations with limited export capacity and negotiation power and have to rely on Tier 1 buyers for business. Therefore, Tier 2 suppliers (and suppliers lower down in the South African automotive supply chain) lack global backup and support compared to the OEM and Tier 1 suppliers (Tolmay, 2004: 7), are less competitive (Barnes, 2000a: 37; Tolmay, 2004: 20; Naude & Bardenorst-Weiss, 2011: 279), and should introduce competitive strategies in order to survive.

As Tier 2 suppliers and other local suppliers lower in the supply chain are not performing to the required international benchmarks (Barnes, 2000b: 38; Tolmay, 2004: 7), their competitive advantage will lie in its ability to manufacture products as efficiently and competitively as possible (Barnes, 2000b: 38). The focus of this study will fall on the survival of Tier 2 suppliers in the South African automotive supply chain.

This is confirmed by UNIDO (2003: 43) which states that although growth in the global automotive arena is limited, there is still space for expansion for

locally owned Tier 2 suppliers; however, proactive (UNIDO, 2003: 44) marketing strategies will prove to be crucial for Tier 2 suppliers.

As already mentioned relationship value can strengthen the competitive position of Tier 2 suppliers and therefore forms the foundation of this study. As manufacturers very seldom focus on proactive marketing (Swarmidass, Baines & Darlow, 2001: 933) strategies, this study will investigate how Tier 2 suppliers can capitalise on business retention as a result of relationship value (Ulaga & Eggert, 2004: 311).

2.6.4 LIMITED COMPONENT DESIGN CAPABILITIES

South African automotive component suppliers fall mainly within the lower Tier component manufacturing segments. The local automotive component suppliers have no or limited technology and innovation capabilities and mandates (Kaggwa, 2008:10). Kaggwa (2008: 11) further avers that it is envisaged that the participation of local automotive component suppliers will decline unless they are empowered to acquire technological competencies in line with global benchmarks. The way to overcome this obstacle is for local automotive component suppliers to establish long term business relationships with OEMs (Moos, Steyn & Pretorius, 2006; Kaggwa, 2008: 11; Naude & Badenhorst-Wiess, 11: 282).

UNIDO (2003: 43) stated that although growth in the global automotive industry arena is limited, there is still space for expansion for locally owned Tier 2 suppliers, but that proactive marketing strategies (UNIDO, 2003: 44) will prove to be crucial for Tier 2 suppliers.

With the abovementioned in mind, local automotive role players, and specifically automotive component suppliers (especially local Tier 2

suppliers), should align themselves with competitive (Barnes, 2000b: 38) strategies in order to retain business.

One such strategy is to offer relationship value to customers in order to enhance a competitive advantage in the market. The focus of this study will fall on identifying the required relationship value antecedents as well as mediators and determining whether relationship value leads to retention in the South African automotive supply chain.

2.7 RELATIONSHIP VALUE IN THE SOUTH AFRICAN AUTOMOTIVE INDUSTRY PURCHASING ARENA

It is very seldom found that suppliers carry out proactive marketing; in fact, Swamidass, et al., (2001: 933) opine that reactive marketing may be detrimental to business. This is no exception in the South African automotive industry, especially for suppliers lower down in the supply chain. According to Sharma, Tzokas, Saren and Kyziridis, (1999: 601) and Ulaga and Chacour (2001: 526), the relationship value concept is of utmost importance when analysing buyer-seller relationships in the business environment, especially with the view of expanding business (Ulaga & Eggert, 2004: 312). It is explicitly stated by Ulaga and Eggert (2006: 120) that *"a sound understanding of the dimensions that drive value creation in manufacturer-supplier relationships is needed".*

Various authors (such as Barnes, 2000a; Kaggwa, 2008; Lamprecht, 2006; Moodley, et al., 2001; Black, 1998), analysing the South African automotive industry, focussed mainly on production activities, quality benchmarks, export performance, industry incentives and neglected marketing activities, and more specifically, relationship value. However, literature on relationship value within the South African automotive industry is currently extremely limited (Naude & Badenhorst-Wiess, 2011: 295).

The purpose of this study will be to align theory with reality and investigate whether relationship value will increase the opportunities for Tier 2 automotive component suppliers to retain business in the global automotive supply chain. While literature pertaining to relationship value has emphasised successful results, this topic has not yet been fully exploited, especially in the South African automotive industry. Hence, the purpose of this study is to identify relationship value antecedents and mediators as well as to test relationship value theory by means of a structural equation model.

2.8 CONCLUSION

The automotive industry is thought of as one of the most globalised industries and the industry is represented in South Africa by a complete supply chain.

Although South Africa produces less than 1% of the world's automobiles (Kaggwa, 2008: 2), the industry contributes substantially towards the country's GDP as well as the country's trade balance. The South African government acknowledges the importance of the industry and government incentives such as the MIDP enhances the industry and stimulates exports.

South Africa's automotive industry is concentrated in four of the country's nine provinces, namely Gauteng, KwaZulu Natal, Eastern Cape while some automotive development is increasingly also taking place in the Western Cape.

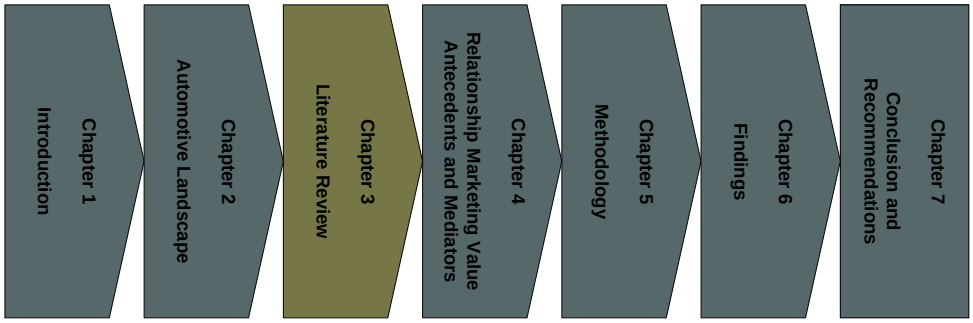
In the light of globalisation, the South African automotive industry faces various challenges such as increased competition (Lamprecht, Rudansky-Kloppers & Strydom, 2011: 56) from other low cost countries, the phasing out of the MIDP in 2012, limited performance of Tier 2 suppliers (usually South African owned suppliers), as well as limited technology and innovation capabilities.

As it was found that manufacturers very seldom focus on proactive marketing (Swamidass, et al., 2001: 933), the purpose of this study will be to investigate how local Tier 2 suppliers can capitalise on business retention through relationship value (Ulaga & Eggert, 2004: 311).

Amidst all the abovementioned challenges, UNIDO (2003: 43) found that substantial opportunities still exist for Tier 2 suppliers. However, these suppliers should pro-actively strategise to render them more globally competitive.

Relationship value can strengthen the competitive advantage of local Tier 2 automotive component suppliers, which will be further discussed in the next chapter.

CHAPTER 3 – LITERATURE REVIEW



3.1 INTRODUCTION

Although the creation of value is viewed as the next source of competitive advantage, the amount of literature on the concept of value and how it is related to relationship marketing is limited (Pane & Holt, 2001: 159; Ulaga & Eggert, 2006: 119). However, it is undisputed that relationship marketing creates perceived customer value (Eggert, Ulaga & Schultz, 2006: 20; Li, 2010: 313) and is crucial in order to advance business relationships. With this in mind, Ulaga and Eggert (2004: 311) believe that value directly impacts on a customer's intention to expand business with suppliers.

Relationship marketing forms an integral part of the exchange theory (Li, 2010: 321) which holds that each time an exchange between two parties occurs, value is added (Bagozzi, 1975: 33; Li, 2010: 313). The transactional exchange compared to collaborative exchange or relationship exchange (Dwyer, et al., 1987: 12; Lindgreen & Wynstra, 2005: 741) is compared on numerous occasions in literature, and the benefits of relational exchange

outperform transactional exchange by far when the explicit benefits of relational exchange such as retention and economic benefits are considered (Lindgreen, et al., 2000: 295, Ulaga & Eggert, 2004:311; Ang & Buttle, 2006: 85).

Relationship marketing and the value thereof (called relationship value) was established (Constantinides, 2006: 406) because various authors have criticised the shortcomings of the original marketing mix approach within the B2B market (Jansen van Rensburg, 2008: 62). In his critique of the marketing mix approach, Constantinides (2006: 412) highlighted these shortcomings (Lehtinen, 2011: 117), consequently, gave birth to the new approach of relationship marketing.

Literature relating to value has also passed through various stages of research (Payne & Holt, 2001: 162). The most recent trend is to focus specifically on relationship value, which is a sub section or relationship marketing. For the purpose of this research, theory and dimensions relating specifically to relationship value were reviewed in order to determine the antecedents of, and mediators for, relationship value. These studies include those of Morgan and Hunt (1994); Sharma, Tzokas, Saren and Kyziridis (1999); Lapierre (2000: 125), Ulaga and Eggert (2005); Hunt, Arnett and Madhavaram (2006); Ulaga and Eggert (2006); Eggert, et al., (2006), while contemporary views of Pine and Gilmore (1999) and Shaw (2007) have also been researched.

It is apparent that, from all the literature reviewed, the authors disagree on which value constructs should be viewed as relationship value antecedents and mediators (Spiteri & Dion, 2004: 675). Also, further research regarding relationship marketing and the value thereof, specifically in the B2B market (Watkins & Hill, 2008: 1; Alqahtani, 2011: 585) should be undertaken and the role of dimensions such as commitment and trust should be determined (Palmatier, et al., 2006: 136). New literature is still required regarding the

design of a model depicting the measurement, performance and effectiveness of relationship value (Parvatiyar & Sheth, 1997: 249; Payne & Holt, 2001: 177) as well as commitment and trust (Palmatier, et al., 2006: 136). To date, research in terms of countries, purchasing professionals, industries and demographic sub samples (Morgan & Hunt, 1994: 34; Ulaga & Eggert, 2005: 89 – 90) is also limited; the focus of this study falls specifically on the relationship value between the Tier 1 (customer) and the Tier 2 (supplier) in the South African automotive component supply chain.

Prominent researchers in the South African automotive industry, such as Barnes (2000a), Barnes (2000b), Black (2001), Lamprecht (2006), and Kaggwa (2008), have focused more on the production related economics of the South African automotive industry, thus leaving space for research regarding relation value concepts.

In this exploratory study, the researcher attempts to contribute towards literature in terms of a conceptional relationship value model by identifying the applicable antecedents and mediators and outcomes for the B2B South African automotive industry.

This research outlines how relationship marketing results in relationship value with retention as an outcome. The main discussion points of this chapter derived from the literature include the different dimensions of value, as part of the exchange theory (Li, 2010: 321) in the B2B market as well as the evolution of theory relating to it. Sacrifices and benefits form part of value and this is discussed in detail in the chapter. It is stated that relationship value forms part of relationship marketing, which will be discussed below.

3.2 THEORETICAL PERSPECTIVES ON VALUE

The delivery of superior value to customers is an ongoing concern of management in many business markets today, and the value concept is considered one of the most popular constructs among business managers and academics (Payne & Holt, 1999: 159; Ulaga, 2001: 315; Ulaga & Chacour, 2001; Li, 2010: 313). This is also of major and increasing concern for consumers and marketers (Patterson & Spreng, 1997). The creation of value is increasingly viewed as the next source of competitive advantage (Woodruff, 1997; Eggert & Ulaga, 2006: 119), while the retention of important customers through the addition of customer value is also regarded as crucial for business success (Flint, Woodruff & Gardial, 1997).

In the current markets, creating value is also crucial for a company's long term survival or prosperity (Ulaga & Chacour, 2001; Eggert, et al., 2006: 21; Li, 2010: 313). Knowing where value resides from the standpoint of the customer has become critical for managers, because greater levels of customer satisfaction lead to greater levels of customer loyalty and retention, positive word of mouth, a stronger competitive position, and ultimately, greater market share (Ulaga & Chacour, 2001). Jansen van Rensburg and Venter (2005: 46) reiterated that loyal customers are willing to pay more for value and are less likely to make use of special offers.

Therefore, value can result in various benefits in the B2B environment, namely, competitive advantage, goal attainment, and cash, financial, and social benefits (Hogan, 2001).

According to Slater (1997) and Woodruff (1997), value can be applied in various dimensions, while the value concept has been widely used in disciplines such as economics, accounting, finance, strategy, production management and marketing (Ulaga & Chacour, 2001). In business markets in particular, customer value is regarded as the cornerstone of the B2B

marketing management process (Anderson & Narus, 2004). During the 1980s, the marketing literature started to acknowledge the crucial importance of strategic inter-firm relationships as a strategic asset (Webster, 1984; Jackson 1985; Ulaga & Eggert, 2006: 119) which results in value.

Zeithaml (1998) and later Grönroos (1997: 412) agree that relationship value as perceived by the customer is the "...*overall assessment of the utility of a product based on a perception of what is received and what is given*". Grönroos (1997) and Payne and Holt (2001: 170) also state that relationship value is the *"...customer perceived value created and delivered over time as the relationship develops".*

The main objective why relationship marketing and the value thereof (Rehman, 2012: 600), is of importance, is the fact that it results in business retention (Ulaga, 2001; Watkins & Hill, 2008; Palmatier, 2008) and this will be discussed in more details later in this chapter.

3.2.1 VALUE AND EXCHANGE THEORY

Value is constantly implied in the work carried out with regard to the marketing dimension of the marketing exchange theory (Payne & Holt, 1999:161; Ulaga & Eggert, 2004: 314; Li, 2010: 321). For example, the pioneering studies conducted by Kotler and Levy (1969: 12) and Kotler (1972: 48) refer to the importance of value and that it implies the "*exchange of values between two parties. The things-of-value need not to be limited to goods, services, and money; they include other resources such as time, energy and feelings*" (Kotler, 1972: 48).

Dwyer, et al., (1987: 11) state that the exchange theory consists of four key benefits. They explain that these benefits are firstly that the exchange is the focal event between two or more parties; and secondly, the exchange

furnishes an important frame of reference in terms of social association resulting in exchange parameters. Thirdly, the exchange offers the opportunity to examine the domain of objects or psychic entities that are transferred, which could also be viewed as being products and money; and fourthly, the exchange is "*a crucial event in the marketplace*" as it determines relational exchange antecedents such as added services, higher quality, or trust (Dwyer, et al., 1987: 11).

Therefore, the exchange view of marketing (Bagozzi, 1975: 33; Hunt, 1991; Ulaga & Eggert, 2005: 75; Lyndgreen & Wynstra, 2005: 732; Li, 2010: 321) is based on the concept of value. Within the market, exchanges take place because all parties expect to be better off after the exchange. Therefore, the higher the net-value expected or received, the stronger the motivation to commence and sustain an exchange process (Ulaga & Eggert, 2005: 75).

The exchange theory in terms of relational value is also supported by a number of authors (Bagozzi,1975; Dwyer, Schurr & Oh, 1987: 12 - 11; Jüttner & Wehrli,1994; Mudambi, Dowle & Mudambi, 1995; Fontenot & Wilson, 1999; Yau, McFetridge, Chow, & Lee, 2000; Payne & Holt, 2001: 160; Spiteri & Dion, 2004; Hunt & Arnett, 2006: 77; Watkins & Hill, 2008; Hald, Cordón & Vollmann, 2008; Palmatier, 2008: 84; Li, 2010: 321). For example, Jüttner and Wehrli (1994: 57) aver that long term relationships create interactive value exchange between customer and supplier and constant value enhancing activities ensure that the relationship is retained (Li, 2010: 316; Rehman, 2012: 598; Lindgreen et al, 2012: 208). In order to keep on adding relationship value through the relational exchange, suppliers need to respond to individualised fast changing customer needs and wants while costs are constantly being reduced (Jüttner & Wehrli, 1994: 69). However, although it is a known fact that relationship exchange adds value, more research is required to determine the *"mechanisms through which it occurs*" (Cannon & Homburg, 2001: 29), which is also the focus of the current study.

Bagozzi (1975) focuses on the importance of the exchange process in greater detail and points out that there are three broad categories of exchange relationships:

The first exchange relationship, namely restricted exchange, refers to the "*give to and receive from*" relationship between two parties (Dwyer, et al., 1987:11), for instance, the supplier and the OEM. Something of value is exchanged for payment (Bagozzi, 1975: 33). A restricted exchange is characterised by two elements, namely, to attempt to maintain equality and to cut transaction time intervals as short as possible (Bagozzi, 1975: 33) and is mostly applicable in the commodity industry where the buyer needs little or no new information. Hutt and Speh (2004: 63) refer to this relationship as a straight re-buy relationship in the B2B market.

Secondly, the generalised exchange refers to the exchange relationship between at least three parties, for example, Party A "*gives"* to Party B, who in turn "*gives"* to party C. These parties benefit from each other either directly or indirectly. Each time value is added by each party and subsequently passed on to the next (Bagozzi, 1975: 33). This exchange involves at least three parties and these parties benefit each other indirectly. This refers to a typical supply chain where one party sources components from the next party down the supply chain. Party A will deal with party B who in return will deal with party C. Party C will not necessarily deal directly with party A but will benefit indirectly from the supply chain activity.

Thirdly, the complex exchange, according to Bagozzi (1975: 33), is the third determinant of the exchange theory, which describes the mutual relationships between at least three parties. The complex exchange entails each party being involved in at least one direct exchange, while the entire system is organised by an interconnecting web of relationships; for example in a production supply chain (Bagozzi, 1975: 33). For instance, an OEM may buy from suppliers A or B. However, suppliers A and B might also source

equipment from each other in the same supply chain with different tiers of suppliers. A specific supplier might also act as a Tier 1 as well as a Tier 2 supplier to the same customer. Hutt and Speh (2004: 66) refer to this as a modified re-buy where specialised information is constantly required and it is most applicable in a market driven by cost, quality or service improvements (Hutt & Speh, 2004: 66).

Bagozzi (1975: 36) further suggests that the reasons behind the exchange lie in the social and psychological significance of the experience, feelings and meaning of the parties in the exchange. The creation of value in the exchange theory adds customer perceived value resulting in a competitive advantage (Payne & Holt, 2001: 159; Li, 2010: 313) which is important in the B2B arena.

3.2.2 VALUE IN THE B2B ARENA

In recent years, the concept of value has attracted substantial attention among marketing researchers and practitioners, although according to Ulaga and Eggert (2005: 73), the customer value concept does not enjoy the prominent position it should.

Four characteristics are applicable to customer perceived value (Ulaga, 2003: 678; Ulaga & Eggert, 2004: 314):

- Customer perceived value is a subjective concept (Kortge & Okonkwo, 1993). Value may be perceived differently by different parties or industries.
- Customer value is conceptualised as a trade-off between benefits and sacrifices (Zeithaml, 1988:13). As an example, you will pay money in return for something. Therefore, it is a trade-off between what you "*give",* for example, money, and what you "*get",* for example, the

component. Various authors, including Lapierre (2000: 123), support this concept. This will be discussed in greater detail under section 3.2.4.

- Value comprises of benefits and sacrifices. Benefits and sacrifices can be multifaceted (Grisaffe & Kumar, 1998). This is not only applicable to marketing but also to other disciplines such as production and logistics.
- Value perceptions are relative to the competition (Gale, 1994; Ulaga & Chacour, 2001) and are constantly compared to that which is available in the market.

According to Lindgreen and Wynstra (2005: 734), providing customer perceived value offerings in the B2B offer various advantages for suppliers, that is, customers are more likely to respond favourably to cross-selling efforts by suppliers and by taking up more products, they take less of the supplier's time in personal selling, they bring the benefits of word of mouth advertising, and they are less price sensitive. Since there are no acquisitions or set-up costs, the marketing expenditure is reduced. This scenario is also applicable to the South African automotive supply chain.

Lindgreen and Wynstra (2005: 734) further assert that value to the customer means that they receive high-quality service and customised products, hence they feel "*valued",* they experience social benefits (e.g., friendship/fraternisation with the producer) and special treatment (e.g., economic benefit and customisation), especially in services where there is a high degree of contact between the user and producer. They also sense that anxiety has been reduced because they trust the producer.

The growing trend towards the commoditisation of products and services (Pine & Gilmore, 1999) creates a need for suppliers to offer higher value offerings in order to differentiate themselves from the competition. By means

of a higher value offering, companies can enjoy premium prices and distinguish themselves from the competition (Pine & Gilmore, 1999). These authors further believe that commoditisation will result in businesses perishing from relying on low prices and economies of scale associated with the mass produced goods and services. Therefore businesses are seeking new and innovative means to add value in order to circumvent commoditisation (Pine & Gilmore, 1999).

Further to this, Ulaga (2001) confirms that a greater relationship value offering can secure higher levels of customer satisfaction and lead to customer loyalty and retention, positive word of mouth, a stronger position, and, ultimately, greater market share. By means of value offerings, customer loyalty, which is directly related to profitability, is secured. This results in long term relationships which, in turn, become a source of competitive advantage (Flint, Woodruff & Gardial, 1997; Eggert, et al., 2006: 21; Ulaga & Eggert, 2006: 119; Li, 2010: 313).

The establishment as well as the maintenance of "*buyer-seller"* relationships are of utmost importance (Rehman, 2012: 600) and have profoundly influenced academic theory (Jansen van Rensburg: 2008: 7). Within the manufacturing industry, such as the automotive industry, the value concept is of utmost importance when analysing industrial buyer-seller relationships (Ulaga, 2001; 2006). Added to this, buyers benefit from cooperation, while suppliers distinguish themselves along intangible dimensions that are difficult to imitate (Barry & Terry, 2008).

Apart from the above drivers towards higher value offerings, companies should also add value in order to grow in an evolutionary and revolutionary manner (Greiner, 1998; Piercy, 2002).

A definite means for companies to add more value than the competition does and to survive in the global economy is to move towards a higher value offering paradigm (D'Amico, 2004: 793). D'Amico (2004: 793) further asserts that "*the profound transformations taking place in the world economy pose the need for all businesses, of whatever size and sector, to review their production processes and reorganise their value chain".*

Organisations should also strive towards a higher value offering in order to circumvent the decline phase in the lifespan of the organisation (Van Tonder, 2004: 64). A company, over its lifespan, moves through various stages such as introduction, growth, maturity and decline, as depicted in Figure 2.1. During the birth or introduction stage, growth is slow in comparison with that of the growth stage where momentum is gathered and expansion is rapid. The maturity stage is characterised by slower growth and is almost stagnant, followed by the decline or death stage where business declines (see Figure 3.1). A company will prefer to maintain the growth stage for as long as possible and prevent the decline stage by every possible means. Therefore, companies tend to want to "*jump the curve"* (Pellissier, 2001: 35) in order to circumvent the last or declining phase (see also Figure 3.1). One way to maintain the maturity phase for as long as possible is to differentiate from the competition by adding customer perceived value (Payne & Holt, 2001: 159; Li, 2010: 313).

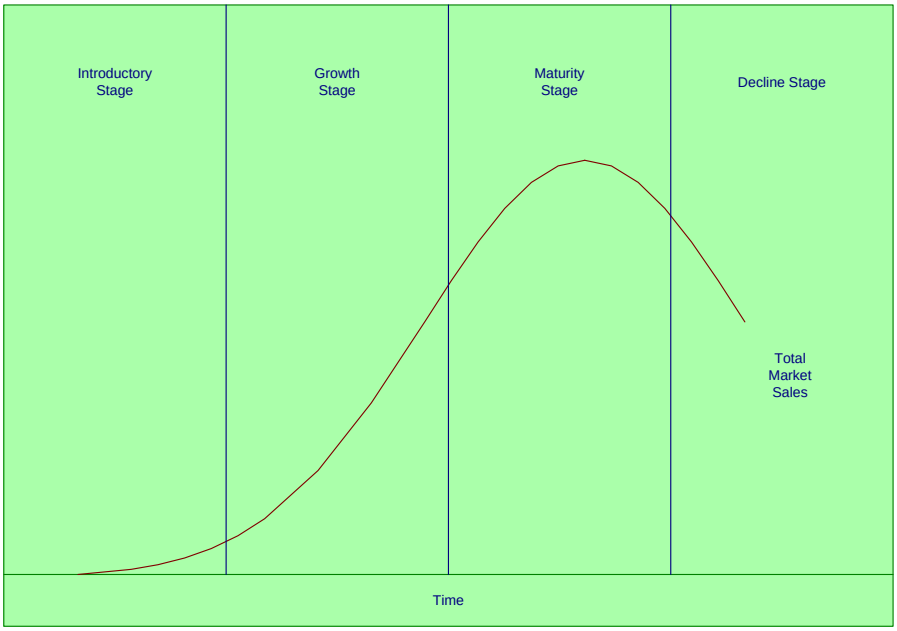


Figure 3.1: S-curve Depicting the Natural Business Cycle (Pellissier, 2001: 35)

Van Tonder (2004: 64) elaborates on the model and states that by means of a dedicated strategy, management can secure the revival of a firm through a renewal phase (see Figure 3.2). However, according to Van Tonder (2004: 68), management should have dedicated corporate strategies to ensure that the revival phase is achieved through creativity, direction, delegation, coordination and collaboration. Strategies to implement relationship value will also be discussed in the next chapter (chapter 4). To prevent the decline and even death of an organisation is to revive it by adding more value in an ever changing market.

According to Jüttner and Wehrli (1994), the turbulent global market has resulted in shorter product life cycles, rapidly changing customer buying patterns and more knowledgeable and sophisticated customers, forcing companies to provide more value than the competition in order to sustain business and profitability (Ulaga & Eggert, 2004: 312). Within this higher degree of market turbulence in general, long term relationships (as a value offering) with customers seem to be a prerequisite for a competitive advantage (Jüttner & Wehrli, 1994: 55; Eggert, et al., 2006: 20; Ulaga & Eggert, 2006: 119).

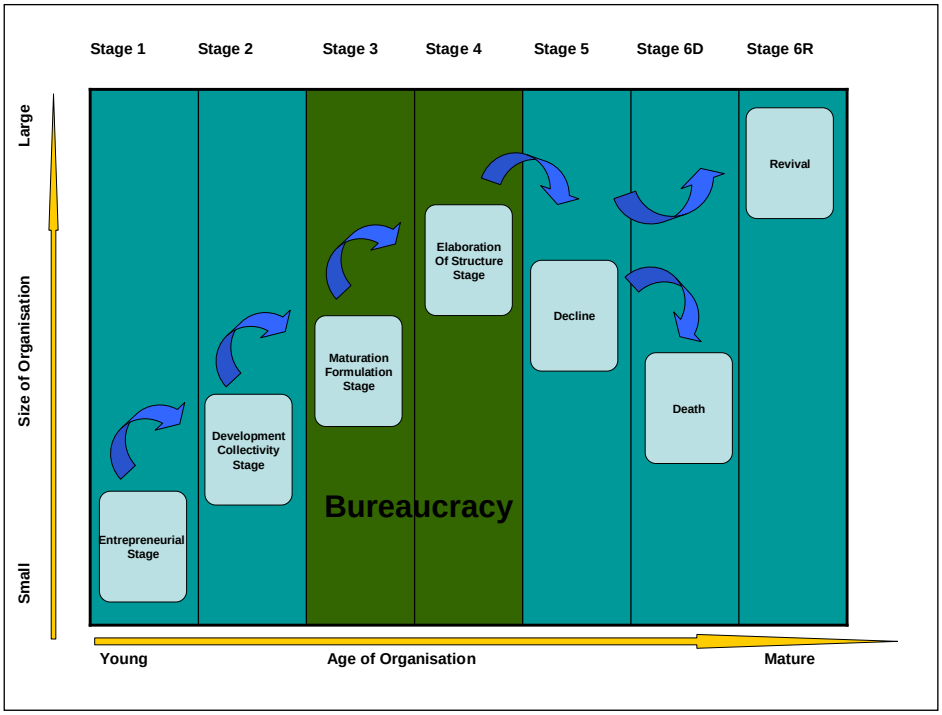


Figure 3.2: An Integrated model of the organisational life cycle (Van Tonder, 2004: 64)

While the literature research on value has progressed through various stages, current studies mainly revolve around relationship value (Payne & Holt, 2001: 162). This evolution of value literature is discussed in the next section.

3.2.3 EVOLUTION OF VALUE LITERATURE

The concept of value has been extensively researched through the years. As a summary of value in the relevant literature, Payne and Holt (2001: 162) state that nine core streams of value literature have been identified, namely; consumer values and consumer value, the augmented product concept, customer satisfaction and service quality, the value chain, creating and delivering superior customer value, the value of a customer, customer-perceived value, customer value and shareholder value, and relationship value, as indicated in Table 3.1.

Table 3.1: Development of the Value Literature (Payne and Holt, 2001: 162)

Illustrative contributors	Key Influences
Gutman (1982); Holbrook (1994); Kahle (1983); Mitchell (1983); Rokeach (1973); Zeithaml (1988).	Customer values and consumer value
Christopher (1997); Collins (1989); Levitt (1980, 1981); Lovelock (1995).	Augmented product concept
Parasuraman, Berry and Zeithaml (1991); Parasuraman, Zeithaml and Berry (1985, 1988); Zeithaml (1988).	Customer satisfaction and service quality
Bower and Garda (1985(a), 1985(b); Burns and Woodruff (1992); Clark, Peck, Payne and Christopher (1995); Gluck (1980); Jüttner and Wehrli (1994); Normann and Ramirez (1993, 1994); Piercy (1998); Porter (1985); Vandemerwe (1993).	The value chain
	Recent Perspectives
Band (1991); Bowman and Ambrosini (1998); Brown (1995); Christopher (1997); Cravens (1997); Day (1990); Gale (1994); Grönroos (1990): Knox and Maklan (1998); Narver and Slater (1990); Naumann (1995); Nicholis (1994); Scott (1998); Slater and Narver (1994); Vandemerwe (1993); Zemke (1993).	Creating and delivering superior customer value
Blattberg and Deighton (1996), Fredericks and Salter (1995); Reichheld (1996); Reichheld and Sasser (1990); Slywotzky (1996).	Customer's value to the firm
Butz and Goodstein (1996); Christopher (1996, 1997); Gordon, Kaminski, Calantone and di Benedetto (1993); Hillier (1998); Parasuraman (1997); Patterson and Spreng (1997); Slater (1997); Woodruff (1997); Woodruff and Gardial (1996); Zeithaml (1998).	Customer-perceived value
	Newer Developments
Cleveland and Bruno (1996, 1997); Laitamäki and Kordupleski (1997).	Customer value and shareholder value
Grönroos (1997); Gummerson (1997, 1999), Ravald and Grönroos (1996); Tzokas and Saren (1998); Wilson and Jantrania (1993, 1994).	Relationship value

In Table 3.1, it is evident that value literature has moved through various stages and perspectives since the early 1980s. The phases include:

- **Consumer values and consumer value,** which refers to literature that focuses on the meaning of value and how it is interpreted and perceived by the consumer (see Table 3.1). The importance to organisations of analysing perceived customer value (and the benefits thereof) is emphasised in order to assist organisations in creating customer value (Payne & Holt, 2001: 161).

- **Augmented product concept,** refers to research related to *"added components"* of manufactured products such as packaging, services, advertising, customer advice, financing, delivery arrangements, warehousing and other aspects that customer value. Hence the value of a product and service lies in the elements that are added (Payne & Holt, 2001: 163) (see Table 3.1).

- **Customer satisfaction and service quality,** has been a research topic for many years, referring to customer satisfaction surveys, customer attitudes and suggestions as per Table 3.1. Customer satisfaction and service quality in relation to buying behaviours has also formed important components of the research (Payne & Holt, 2001; 164).

- **The value chain** covers theory inspired mainly by Porter (1985) with regards to how value is added along the value chain activities, resulting in a competitive advantage (Ulaga & Eggert, 2006: 119). A few authors have also criticised the value chain theory developed by Porter. Nevertheless, the importance of added value as well as the delivery of superior customer value is emphasised (Payne & Holt, 2001; 165). Refer to Table 3.1.

- **Recent perspectives of value** have focused more on the role of value in relation to a competitive advantage (as in Table 3.1), which includes the following research:

    - **Creating and delivering superior customer value:** this work focuses on the organisation becoming more market and customer focused, resulting in higher profitability. The value concept is not new but today's customer wants more than "*value"* and expects *"convenience of purchase, after-sale service, dependability"* (Zemke, 1993: 46). Furthermore, the customer always considers value in relation to the competition (Payne & Holt, 2001; 166). Relating to this, originally Zemke (1993: 46) provided examples of OEMs such as Mazda, Ford and Mercedes Benz, who started offering additional features and services to the customer relative to the competition. Zemke (1993, 50) advised that in order to succeed in the market place, companies should decide what they want their company to be famous for and "*then pull out all the stops to make that real and palpable for the customer*". Thus, companies should add value where the customer requires it the most.

    - **The customer's value to the firm** has focused on the understanding of customer value from the perspective of the value of the customer to the organisation. Therefore, this thesis is not focused on the creation of value for the customer but rather on the value outcome that can be derived from providing and delivering superior customer value (Payne and Holt, 2001; 167).

    - **Customer perceived value:** instead of focusing on customer satisfaction, this stream of research has focused more on understanding that which customers value in terms of those

products and services which help them to achieve their organisational goals and purposes. Slater (1997: 165) maintains that the customer nowadays considers both the costs and the benefits that they receive from a supplier, and that the focus has shifted to customer-perceived value, which is a trade off between perceived benefits and perceived sacrifices (Payne & Holt, 2001; 168). Therefore, the creation of superior customer perceived value will be the reason for success (Slater, 1997: 166) of firms operating in an increasingly "*turbulent and complex and competitive environment"* (Slater, 1997: 163).

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According to Payne and Holt (2001: 168), new developments in research with regards to value reflect on customer value and shareholder value as well as relationship value (Table 3.1).

- **Customer value and shareholder value**: recent research has focused not only on customer value but also on value created for shareholders such as a positive share yield and a higher demand for shares as companies are seen as blue chip organisations. Payne and Holt (2001: 169) also assert that customer value drives shareholder value. The customer and shareholder value stream of research is important because it introduces a further stakeholder, the shareholder, into the consideration of value (Payne & Holt, 2001: 169).

- **Relationship value:** the most recent development in value research addresses relationship value (Payne & Holt, 2001; 162) and this stream of research specifically highlights the quality of the relationship. Instead of a transactional approach, the supplier should rather focus on a long term relationship with the customer (Grönroos, 1997: 408), with the result that the relationship itself can exert a major impact on the total value received by the customer. Grönroos (1997: 417) concluded that *"To be able to manage the value creation in a relational*

context the firm has to focus on the resources – personnel, technologies, knowledge and information, customer's time and customer itself – as well as on the competencies of the firm to acquire and manage these resources". Not only does the customer benefit, but, as Gummerson (1997: 267) avers, that relationship value creates value for all parties as a *"joint-effort".*

As the *"relationship value"* topic is the most recent development within the *"value"* literature genre, the focus of this study specifically falls on this. However, literature referring to the earlier sources mentioned in Table 3.1 was also reviewed in order to describe the complete "*value"* landscape.

Value comprises of sacrifices and benefits, which will be discussed in the next section.

3.2.4 VALUE TRADE-OFF: SACRIFICES AND BENEFITS

Value implies a trade-off between benefits and sacrifices and an interaction between the customer and product/service (Payne & Holt, 2001: 161). The concept of "*benefits*" or "*sacrifices*" as the basis for determining "*value*" is also described by Dwyer, et al., (1987, 14), Pine and Gilmore (1999), Anderson, et al., (1993), Anderson and Narus (1999), Ravald and Grönroos (1996), Lapierre (2000: 123), Ulaga and Chacour (2001), and Walter, et al., (2001).

"Customer perceived value can, therefore, be defined as the difference between the benefits and sacrifices" in terms of customer expectations (Lapierre, 2000: 123). Lapierre (2000: 123) also asserts that the purchasing decisions of customers are often guided by a careful assessment of the benefits or value they obtain in exchange for the costs they incur in order to acquire and consume the product.

In his in depth research, Lapierre (2000: 124) identified 13 value based drivers (see Table 3.2) which are product, service and relationship-related.

Table 3.2: Total Value Proposition (Lapierre, 2000 : 125)

DOMAIN	SCOPE		
	PRODUCT	SERVICE	RELATIONSHIP
BENEFITS OR SATISFACTION	Alternative Solutions Product Quality Product Customisation	Responsiveness Flexibility Reliability Technical Competence	Image Trust Solidarity
SACRIFICE	Price		Time/Effort/Energy Conflict

Lapierre (2000) maintains that customer perceived value can be divided into product, service and relationship value (see Table 3.2). Product value, according to Lapierre (2000: 125) refers to:

- alternative solutions (which entails product substitutes)
- product quality (refers to the performance of the product)
- product customisation (relates to the application of the product).

The service value is listed as (Lapierre, 2000: 125):

- responsiveness (this relates to the quick response time to customers)
- flexibility (relates to the ability to adjust delivery times)
- reliability (indicates consistent deliveries with correct products)
- technical competence (entails the technical knowledge of the supplier).

The relationship value includes (Lapierre, 2000: 125):

- image (relates to the corporate branding of the supplier)

- trust (entails the trustworthiness of the supplier)
- solidarity (relates to the uniqueness of the supplier).

According to Lapierre (2000: 123), customer sacrifices represent the overall monetary and non monetary costs which the customer invests or gives to the supplier in order to complete the transaction or to maintain a relationship with the latter. The non monetary costs can be defined as the time/effort/energy and/or conflict invested by the customer to obtain the desired products or services or to establish a relationship with a supplier.

Table 3.2 displays the three value sacrifices identified by Lapierre (2000) as:

- price – product and service related
- time/effort/energy – relationship related
- conflict – relationship related.

Lapierre (2000: 132) establishes that price (as a sacrifice), a monetary cost, and time/effort/energy (as sacrifices), and non-monetary costs, do not contribute much to the value proposition. Although Lapierre's (2000) model was criticised by Eggert, Ulaga and Schultz (2006: 20), this was the first definite model relating to relationship value in the B2B arena.

Apart from Lapierre (2000), various other authors also emphasise the benefits and sacrifices encapsulated in a value offering.

According to Table 3.3, additional authors who support the benefit and sacrifice dimention include Dwyer, Schurr and Oh (1987: 14); Mudambi, McDowle and Mudambi (1995); Walter, Ritter, Gemunden (2001); Van der Haar, Kemp and Omata (2001: 628); Spiteri and Dion (2004); Hunt and

Arnett (2006: 76); Damkuvienè and Virvilaitè, (2007); and Baxter (2009). See also Table 4.6 in chapter 4.

Grönroos (1997) is a prominent researcher who focuses extensively on value offering benefits and maintains that it comprises a core solution and additional services. As in Table 3.3 Grönroos (1997) also asserts that value sacrifices consist of price and relationship costs, which correspond with the study conducted by Lapierre (2000). According to Table 3.3, Ulaga and Eggert (2005) elaborate on value sacrifices such as price and process costs, and particularly focused on value benefits and they constitute product, service, know-how, time-to-market and social benefits. These value benefits identified by Ulaga and Eggert (2005) are also the focus of the current study.

Table 3.3: Proposed Dimensionally of Relationship Value (Ulaga & Eggert, 2005)

Author(s)	Benefit Dimensions	Sacrifice Dimensions
Anderson, et al., (1993) **Anderson and Narus (1999)** **Anderson, et al., (2000)**	Four benefit dimensions (perceived as net benefits): • Economic benefits • Technical benefits • Service benefits • Social benefits	One sacrifice dimension: • Price
Wilson and Jantrania (1995)	Three benefit dimensions: • Economic benefits • Strategic benefits • Behavioural benefits	
Grönroos (1997)	Two benefit dimensions: • Core solution • Additional services	Two sacrifices: • Price • Relationship costs
Ravald and Grönroos (1996)	Two benefit dimensions: • Episode benefits • Relationship benefits	Two sacrifice dimensions: • Episode sacrifices • Relationship Sacrifices
Gwinner, et al., (1998)	Three benefit dimensions:	

	• Confidence benefits • Social benefits • Special treatment benefits	
Lapierre (2000)	Three benefit dimensions: • Product related benefits • Service related benefits • Relationship related benefits	Two sacrifice dimensions: • Price • Relationship related sacrifices
Ulaga and Eggert (2005)	Five Benefits • Product Benefits • Service Benefits • Know-how benefits • Time-to-market benefits • Social benefits	Two Sacrifices • Price • Process Costs

This concept of satisfaction and sacrifice is also emphasised in contemporary studies by Pine and Gilmore (2000: 19) who introduced the following equation:

Customer satisfaction = (What customer expects to get – What customer perceives s/he gets).

However, in terms of a value proposition, the customer sacrifice (see equation below) should also be understood as consisting of the areas that have not yet been fully identified between what a customer settles for and what s/he wants exactly (Pine & Gilmore, 2000):

Customer sacrifice = (What customer wants exactly – What customer settles for).

It is essential to add value to a customer in order to maintain a competitive advantage (Payne & Holt, 2001: 159) and organisations should do anything possible to make sure that their value offering includes the maximum benefits with minimum sacrifices to the customer. Eggert, et al., (2006) opine that relationship value can therefore be created by either increasing value benefits or decreasing value sacrifices. Hence, benefits and sacrifices form a central part of a value offering and are key to relationship marketing value, which will be discussed in the next section.

It is clear from theory that value constitutes a trade off between benefits and sacrifices. However, for the purpose of this study, only value benefits are taken into consideration and the study does not focus on value sacrifices by any means. Ulaga and Eggert (2005: 78) state that in line with former research they regard the product benefits as key dimensions of relationship value. This will also be noted as research delimitation in chapter 5. The reason for this is because of limited finances and a limited research framework which affect the "*goodness of fit"* of the structural equation model.

3.3 RELATIONSHIP MARKETING AND THE VALUE THEREOF

According to Constantinides (2006: 406), the marketing mix has its origins in the 1960s when Neil Borden identified twelve controllable marketing elements that, properly managed, would result in a "*profitable business operation".* Later, Jerome McCarthy reduced Bordon's factors to a simple four-element framework: Product, Price, Promotion and Place.

Table 3.4 presents the evolution of the marketing mix as presented by Gummerson (1994: 8). According to him, the marketing mix theory, mainly described as the 4Ps, first appeared in the textbook by McCarthy (1960) and provided the foundation for various marketing textbooks. Later (1987), Judd suggested the fifth P, people, thereby regarding marketing staff as an important marketing parameter (Gummerson, 1994: 8). Booms and Bitner

(1981) introduced the 7Ps for services marketing, adding participants, physical evidence, and process. Kotler (1986) added a further 2 Ps, namely, political power and public opinion. Baumgartener (1991) substantially expanded the marketing mix to 15Ps (Gummerson, 1994: 8).

Table 3.4: Marketing Mix and Proposed Extensions of the 4 Ps (Gummerson, 1994: 8)

4Ps McCarthy (1960)	5Ps Judd (1987)	6Ps Kotler (1984)	7Ps Booms and Bitner (1981)	15Ps Baumgartener (1991)
Product	Product	Product	Product	Product/service
Price	Price	Price	Price	Price
Promotion	Promotion	Promotion	Promotion	Promotion
Place	Place	Place	Place	Place
	People	Political Power	Participants	People
		Public Opinion Formation	Physical Evidence	Politics
			Process	Public Relations
				Probe
				Partition
				Prioritize
				Position
				Profit
				Plan
				Performance
				Positive Implementations

Of all the marketing mix extensions, the 4P marketing mix model is widely embraced by practitioners and academics, but according to Constantinides (2006: 409), this model still poses various areas that have not yet been fully identified, especially in the B2B environment (Jansen van Rensburg, 2008: 62).

According to Grönroos (1994: 53) and Constantinides (2006: 408), the majority of marketing practitioners consider the traditional marketing mix as the toolkit of transaction marketing (or even a once off transaction). However, in the manufacturing B2B environment, the traditional marketing mix (product, price, promotion and place) does not provide the necessary requirements for obtaining a competitive edge (Lehtinen, 2011: 117).

In support of this argument, Gordon (1998: 1) maintains that the role of marketing has been under siege for over a decade, since management wants more revenue impact from marketing, more immediately.

The developments in the B2B landscape have forced marketers to explore new theoretical approaches that address specific marketing problems and expand the scope of the marketing management theory (Constantinides, 2006: 412). Constantinides (2006: 413) avers that the major shortcomings of the 4P marketing mix approach are found in too much internal focus, the lack of consumer interactivity and the lack of strategic elements.

According to Constantinides (2006: 415), market saturation, economic crises and increasing global competition combined with inconsistent and unpredictable consumer behaviour, are some of the main drivers behind the relationship marketing movement.

Gordon (1998: 3) asserts that developments in the market such as shortened time horizons, changes in market segmentation approaches, individualism or customisation, shortened market research cycles and pro-active customer demands, have forced organisations to rethink their marketing approach; Hence collaborative (relationship) marketing was introduced in the 1990s to overcome these shortcomings in the B2B environment (Constantinides, 2006: 411).

Subsequently, as Constantinides points out, marketers discovered the advantages of personalisation and customer value, resulting in loyalty through relationship marketing. Table 3.5 provides a review of relationship marketing in relation to the marketing mix.

Table 3.5: The 4Ps Approach Reviewed against Relationship Marketing (Constantinides, 2006: 416)

Author(s)	Marketing Mix	Collaborative or Relationship Marketing
	Arguments	**Proposition**
Lauterborm (1990)	The 4 Ps Marketing Mix is product oriented. The successful marketing plan must place the customer at the centre of the marketing planning.	Four Cs replace the 4 Ps indicating the customer orientation: • Customer needs • Convenience • Cost (customer's) • Communication
Rozenberg, Czepiel (1992)	Keeping existing customers is as important as acquiring new ones. The approach towards existing customers must be active, based on a separate marketing mix for customer retention.	Retention marketing mix: • Product extras • Reinforcing promotions • Sales-force connections • Specialised distribution • Post-purchase communication
Gummesson (1994, 1997)	"The role of the 4Ps is changing from being founding parameters of marketing to one of being contributing parameters to relationships, network and interaction"	30 R (relationship) parameters illustrate the role of marketing as a mix of relationships, networks and interaction.
Grönroos (1994)	Several arguments underlying the limitations of the marketing mix as the marketing paradigm: Obsolete, not integrative, based on conditions not common to all markets, production oriented, not interactive, etc.	Relationship marketing offers all the necessary ingredients to become the new marketing paradigm, while the marketing mix is not suitable to support a relation-based approach.
Goldsmith (1999)	The trend towards personalisation has resulted in the increasing	The personalised marketing plan includes 4 more Ps next to the

	contribution of services related to the marketing of products. Personalisation must become the basis of the marketing management trajectory.	traditional Ps of the marketing mix: • Personalisation • Personnel • Physical assets • Procedures
Patterson and Wald (2000)	The traditional marketing mix therefore has a clearly offensive character because the strategies associated with the 4Ps tend to be function oriented and output oriented. Well-managed organisations must shift the emphasis in managing valued customer relationships in order to retain and increase their customer base.	Four information-intensive strategies form the "new Cs" of marketing: • Communication • Customisation • Collaboration • Clairvoyance
Healy, et al., (2001)	The weight of marketing management is clearly switching towards relationship marketing as the future marketing paradigm.	Relationship marketing addresses the elements of marketing management identified by the marketing relationship trilogy: • Relationships • Neo-relationship marketing • Networks

In Table 3.5 it is evident that the marketing mix approach focuses mainly on the once off transaction in comparison with the collaborative approach that focuses more on the personal relationship and interaction (Eggert, et al., 2006: 21). The latter is more aligned with a long term and ongoing relationship where a social exchange proves to be extremely important. The relationship marketing (Alqahtani, 2011: 585) approach is also much more appropriate in the B2B environment in comparison with the marketing mix approach. Table 3.5 also reveals that personal interaction forms the core of relationship marketing (Goldsmith, 1999; Healy, Hastings, Brown & Gardiner, 2001) with constant communication and interaction (Lauterborm, 1990; Rozenberg, Czepiel, 1992; Patterson & Wald, 2000).

Consequently, an emphasis was placed on a long term very close relationship and a win-win philosophy rather than the win-lose philosophy (Vakis, 1998: 4). This approach motivates the movement from the traditional adversarial relationship between suppliers and their customers towards a new form of relationship based on co-operation (Vakis, 1998: 4), which is particularly applicable in the B2B arena, as discussed below.

3.3.1 Relationship Marketing in the B2B Arena

It is known that buyers and sellers craft different types of relationships in response to market conditions and the characteristics of the purchasing situation. Transactional relationships prevail where there is a competitive supply market featuring many alternatives, the purchase decision is not complex, and the supply market is stable (Hutt, 2004: 93).

Contrary to this, a collaborative relationship exists when there are few alternatives, the market is dynamic, and the complexity of the purchase is high, as in the automotive industry. Between the two extremes on the relationship continuum are value-adding exchanges, as illustrated in Figure 3.3 (Hutt, 2004: 93).

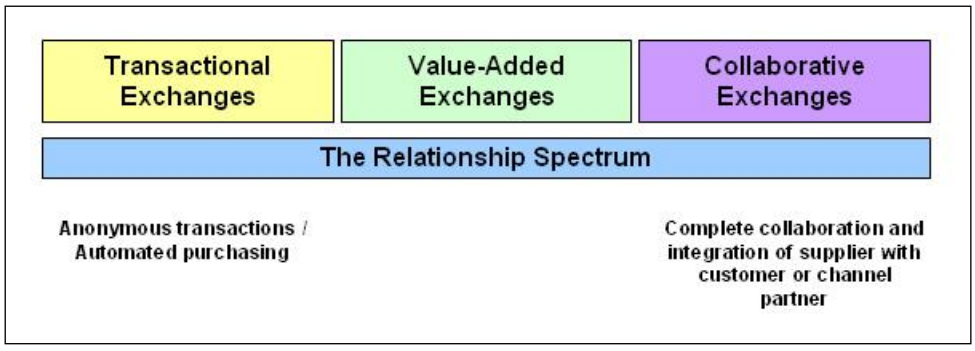


Figure 3.3: The Relationship Spectrum (Hutt, et al., 2004: 93)

Therefore, with the focus falling on collaborative advantage for both parties in the transaction, especially as regards the procurement process, much emphasis is focussed on the relationship which *"centres on all activities directed toward establishing, developing and maintaining successful exchanges with customers and other constituents"* (Hutt, 2004: 92).

Relationship marketing value through a collaborative exchange, rather than transactional exchanges, also falls under the focus of this study.

Hogan (2001) and Ulaga and Chacour (2001) observe that the business environment is undergoing a paradigm shift from a transactional marketing to a longer term or collaborative marketing relationship. A growing number of firms in the business markets seek competitive advantages by forming close, collaborative relationships with selected suppliers and customers. This view is also shared by Dwyer, et al., (1987), Kotler (1990), Lyons, Krachenberg and Hemke, (1990), Webster (1992), Grönroos (1996), Parvatiyar and Sheth (1997), Jap (1999), Payne and Holt (2001: 159), Hewitt, Money and Sharma (2002), Ulaga and Eggert (2006: 119), Barry and Terry (2008).

Very importantly, Grönroos (2004) avers that relationships are based on the notion that in addition to the value of products, the existence of a relationship between two parties creates additional value for the customer, for example, security, a feeling of control and a sense of trust, minimised purchasing risks, and in the final analysis, reduced costs of being a customer.

Collaborative relationships in business markets are of growing importance (Rehman, 2012: 600) to customers and suppliers alike (Hutt, 2004: 93). Ulaga (2003) maintains that a growing recognition of collaborative relationships in business markets offers significant opportunities for companies to create competitive advantages and achieve superior results. With the ever competitive business market environment, a growing number of

companies develop close relationships with their customers in order to cope with the pressure of increasing competition (Anderson & Narus 1990; Morgan & Hunt, 1994: 20; Sheth & Parvatiyar, 2002).

Dwyer, et al., (1987: 13) also present a matrix (Table 3.6) comparing once off transactional relations with long term collaborative (or relational) exchange in terms of situational characteristics and process characteristics. The collaborative or relational exchange clearly outperforms the transactional exchange. Dwyer, et al., (1987: 13) also refer to the distinction between transactional or once off transactions (named discrete transactions) and relational marketing or ongoing relationships. Table 3.6 (Dwyer et al., 1987: 13) refers to 12 dimensions with which to differentiate between transactional and relational exchanges.

Dwyer, et al., (1987) (Table 3.6) assert that only two parties are involved with a transactional exchange and in the case of the relational exchange more than two parties are involved in the exchange. The timing of the relational exchange is much longer than in that of the transactional exchange.

Transactional exchange is also characterised by minimal personal relationships, and simple obligations, while conflict is often present, whereas relational exchange is based more on personal relationships characterised by trust which results in the management of conflict and obligations.

Contrary to transactional exchange with no collaboration between parties, a relational exchange results in joint planning efforts measured against specific goals, which would result in benefits for both parties.

Table 3.6: A Comparison between Transactional and Relational Exchange (Dwyer, Schurr & Oh, 1987: 13

	Contractual Elements	Transactional Exchange	Collaborative or Relational Exchange
Situational Characteristics	Timing of exchange (commencement, duration, and termination of exchange)	Distinct beginning, short duration, and sharp ending by performance	Commencement is traced to previous agreements; exchange is longer in duration, reflecting an ongoing process
	Number of parties (entities taking part in some aspect of the exchange process)	Two parties	Often more than two parties involved in the process and governance of exchange
	Obligations (three aspects; source of content, sources of obligation, and specificity)	Content comes from offers and simple claims, obligations come from beliefs and customs (external enforcement), and standardised obligations	Content and source of obligations are promises made in the relation plus customs and laws; obligations are customised, detailed and administered within the relationship.
	Expectations for relations (especially concerned with conflicts of interest, the prospects of unity, and potential trouble)	Conflicts of interest (goals) and little unity are expected, but no future trouble is anticipated because cash payment upon instantaneous performance precludes future interdependence	Anticipated conflicts of interest and future trouble are counterbalanced by trust and efforts at unity
Process Characteristics	Primary personal relations (social interaction and communication)	Minimal personal relationships; ritual-like communications predominate	Important personal, non economic satisfactions derived; both formal and informal communications are used
	Contractual solidarity (regulation of exchange behaviour to ensure performance)	Governed by social norms, rules, etiquette, and prospects for self gain	Increased emphasis on legal and self-regulation; psychological satisfaction causes internal adjustments
	Transferability (the ability to transfer rights, obligations and	Complete transferability; it does not matter who fulfils contractual	Limited transferability; exchange is heavily

	satisfactions to other parties)	obligation	dependent on the identity of the parties
	Cooperation (especially joint efforts at performance and planning)	No joint efforts	Joint efforts related to both performance and planning over time; adjustment over time is endemic
	Planning (the process and mechanisms for coping with change and conflicts)	Primary focus on the substance of exchange; no future is anticipated	Significant focus on the process of exchange; detailed planning for the future exchange within new environments and to satisfy changing goals; tacit and explicit assumptions abound
	Measurement and specificity (calculation and reckoning of exchange)	Little attention to measurement and specifications; performance is obvious	Significant attention to measuring, specifying, and qualifying all aspects of performance, including psychic and future benefits
	Power (the ability to impose one's will on others)	Power may be exercised when promises are made until promises are executed	Increased interdependence increases the importance of judicious application of power in the exchange
	Division of benefits and burdens (the extent of sharing of benefits and burdens)	Sharp division of benefits and burdens into parcels; executive allocation to parties	Likely to include some sharing of benefits and burdens and adjustments to both shared and parcelled benefits and burdens over time

Very similar to the above, Lindgreen and Wynstra (2005: 742) summarise the traits of a transactional orientated purchasing approach as compared to the relational or collaborative approach. According to Table 3.7, a long relational approach combine resources and knowledge between customers and focuses on co-operation with the supplier in addition to a transactional approach where the customer choose the most efficient supplier with no long term relational approach. It is also important that a transactional approach

should focus on the buying of a product whereas the relational approach will focus on the buying of capabilities.

Table 3.7: Transactional oriented versus relational oriented purchasing behaviour (Lindgreen & Wynstra, 2005)

Transactional Oriented Approach	Relational or Collaborative Oriented Approach
Many alternatives	One of few alternatives
Every deal is a new business, and no-one should benefit from past performances	A deal is part of a relationship, and the relationship is part of a network context
Exploit the potential of competition	Exploit the potential of co-operation
Short-term, arm's length distance, and avoid coming too close	Long term with tough demands and joint developments
Renewal and effectiveness by change of partner, and choose the most efficient supplier at any time	Renewal and effectiveness by collaboration and team effects, and combine resources and knowledge
Buying product: • Price-orientation, strong in achieving favourable prices in well-specified products	Buying capabilities: • Cost- and value-orientation, strong in achieving low total costs of supply and developing new value

The additional authors who support the relational transaction rather than the discrete transaction theory include; Bagozzi (1975), Dwyer, Schurr and Oh (1987: 11), Jüttner and Wehrli (1994), Mudambi, McDowle and Mudambi (1995), Fontenot and Wilson (1999), Yau, McFetridge, Chow and Lee (2000),

Payne and Holt (2001), Spiteri and Dion (2004), Hunt and Arnett (2006: 72), Hald, Cordón and Vollmann (2008), Watkins and Hill (2008), Palmatier (2008: 84). These authors emphasise the importance of the relational exchange over a long period with benefits for both parties such as productivity and cost savings. It appears that authors agree that relationship value results in business retention which provides a competitive advantage for suppliers.

It is evident that the relational oriented approach poses many more advantages than that of the transactionally oriented approach in the B2B market, especially with regards to the buying capabilities that result from this.

Dwyer, et al., (1987) also asserts that it is important to note that relational exchange (also known as relationship marketing) transpires over time and that it is not a once-off intervention (Eggert, et al., 2006: 21).

As a result of the importance of the collaborative or long term relationship in the B2B market, the theoretical concept of relationships was introduced during the 1990s by various authors (Wilson & Jantrania, 1993, 1994; Ravald & Grönroos; Grönroos, 1997; Gummerson, 1999).

3.3.2 DEFINITION OF RELATIONSHIP MARKETING

Relationship Marketing has been defined by various authors:

- Dwyer, Schurr and Oh (1987) proposed that: *"Relationship Marketing refers to all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges*" and that relationships evolve through 5 general phases: (1) awareness, (2) exploration, (3) expansion, (4) commitment, and (5) dissolution (1987: 15).

- According to Gummerson (1994: 2), *"[r]elationship marketing is seen as relationships, networks and interaction".*

- Morgan and Hunt (1994, 22) define relationship marketing as *"all those market activities directed toward establishing, developing, and maintaining successful relational exchanges".*

- Grönroos (1997: 407) defined relationship marketing as "*the process of identifying and establishing, maintaining, enhancing, and when necessary, terminating relationships with customers and other stakeholders, at a profit, so that the objectives of all parties involved are met, where this is done by a mutual giving and fulfilment of promises".*

- Gordon (1998: 9) confirms that relationship marketing is: "*the ongoing process of identifying and creating new value with individual customers and then sharing the benefits from this over a lifetime of association*". He further states that *"[i]t involves the understanding, focusing and management of ongoing collaboration between suppliers and selected customers for mutual value creation and sharing through interdependence and organisational alignment*".

The definition of relationship marketing is a summary of the abovementioned definitions in Table 3.8.

Table 3.8: Summary of the Definition of Relationship Marketing (Author)

Relationship Marketing			
Is: ▪ Identifying ▪ Establishing ▪ Maintaining ▪ Enhancing ▪ Terminating (if necessary) ▪ Understanding ▪ Focusing ▪ Management ▪ Developing	Through: ▪ Relationships ▪ Network ▪ Interaction ▪ Exchange	To achieve: ▪ Profit Mutual: ▪ Objectives ▪ Fulfilment of promises ▪ Benefits	Towards: ▪ Stakeholders
Ongoing interdependence <u>value</u> **creation** process			

As summarised in Table 3.8 the definition of relationship marketing and the value thereof in the manufacturing supply chain context can be summarised as**:** *The establishment and maintenance of an ongoing and interdependent relational exchange between the supplier and customer to deliver value for all stakeholders.*

3.3.3 RELATIONSHIP MARKETING RESULTS IN VALUE

Since the more recent development has been to consider the collaborative relationship value concept from the viewpoint of relationship marketing (Payne & Holt, 1999; Li, 2010: 313), researchers direct their attention more towards the concept of customer value as a major building block of relationship marketing (Ulaga & Eggert, 2005). Anderson (1995: 349) opines that *"value creation and value sharing can be regarded as the raison d'être of collaborative customer-supplier relationships".*

Payne and Holt (2001: 159) confirm that relationship marketing and value thereof (Li, 2010: 313) has been one of the key developments of modern marketing science (Alqahtani, 2011: 585). Several leading scholars such as Grönroos (1996a) and Payne and Holt (2001: 159) suggest that relationship value represents a paradigm shift in the approach to, and orientation of, marketing.

Wilson and Jantrania (1993, 1994) believe that any relationship creates some value for both parties and the means by which this value is shared is likely to present a major issue in the life of the relationship. Later, Ravald and Grönroos (1996) assert that the relationship itself can exert a major impact on the total value received by the customer. They add that "*value for the customer is not embedded in a transactional exchange of a product for money. Instead customer perceived value is created and delivered over time as the relationship develops"* (Ravald & Grönroos, 1996).

Value derives from relationship marketing. Grönroos (1997: 422) avers that *"[v]alue is considered to be an important constituent of relationship marketing and the ability of a company to provide superior value to its customers is regarded as one of the most successful strategies".*

Ravald and Grönroos (1996) extended the views of value as discussed earlier and suggest that the relationship itself might have a major effect on the total value received by the customer. They further stated that *"Value is considered to be an important constituent of relationship marketing and the ability of a company to provide superior value to its customers is regarded as one of the most successful strategies for the 1990s. This ability has become a means of differentiation and a key to the riddle of how to find a sustainable competitive advantage*" (Ravald & Grönroos, 1996: 19).

Hunt, Arnett and Madhavaram, (2006: 77) assert that relationship marketing results in various positive value outcomes which include:

- Trust (Dwyer, et al., 1987; Morgan & Hunt, 1994; Sividas & Dwyer, 2000; Smith & Barclay, 1997; Wilson, 1995; Hunt & Arnett, 2006), which is conceptualised as one party placing confidence in a supplier's reliability and integrity.
- Commitment (Anderson & Weitz, 1992; Day, 1995; Geyskens, et al., 1999; Moorman, et al., 1992; Hunt & Arnett, 2006) exists when a customer believes that a relationship with a supplier is so important as to warrant efforts to maintain it as long as possible.
- Cooperation (Anderson & Narus, 1990; Morgan & Hunt, 1994; Hunt & Arnett, 2006) occurs when both parties participate jointly in achieving a win-win situation.

- Keeping promises (Grönroos, 1990, 1994; Hunt & Arnett, 2006) refers to the ability of suppliers and customers to deliver what they have committed to do.
- Shared values (Brashear, et al., 2003; Morgan & Hunt, 1994; Yilmaz & Hunt, 2001; Hunt & Arnett, 2006) entail the sharing of the same beliefs.
- Communication (Mohr & Nevin, 1990; Mohr, et al., 1996; Hunt, et al., 2006) involves the two way discussion between two parties who share information.

Similarly, Gordon (1998, 9) states that relationship marketing incorporates inputs such as the creation of new value (Li, 2010: 313) for customers and stakeholders; recognises the importance of creating value for each individual customer according to their specific needs; the design and alignment of business processes towards strategic, customer required, value; continuous cooperation between buyer and seller; the recognition of customers over a lifetime – not short term; and seeking ways to build a chain of relationships with all the stakeholders within the organisations.

According to Gordon (1998: 22), the eight relationship marketing components responsible for the creation of the above mentioned inputs are:

- culture and values
- leadership
- strategy
- structure
- people
- technology
- knowledge and insight
- processes.

Gordon (1998: 54) summarises these as being people, process, technology, knowledge and insight. It is clear that relationship marketing is not an

isolated process, but a structured approach which incorporates the entire organisation (Gordon, 1998, xv). It is important that relationship marketing as a formal process needs to be understood (Alqahtani, 2011: 585) and should be effectively managed in the supply chain so that the supplier and customer continuously derive mutual value from the relationship (Gordon, 1998: xiv; Grönroos, 1997; Li, 2010: 313). As mentioned earlier, the value creation process in relationship marketing (Li, 2010: 313) is extremely important and is supported by various authors including; Gummerson (1994), Jüttner and Wehrli (1994), Mudambi, McDowle and Mudambi (1995), Wilson (1995), Flint, Woodruff & Gardial, (1997), Grönroos, (1997), Cleland and Bruno (1997), Laitamäki and Kordupleski (1997), Walters and Lancaster (1999), Grönroos (2004), Payne and Holt (2001), Walter, Ritter and Gemunden, (2001), Ulaga (2001), Weinstein (2002), Spirteri and Dion (2004), Anderson, Narus and Van Rossum (2006), Hald, Cordón and Vollmann (2008), Baxter (2009), Palmatier (2008), Watkins and Hill (2008), Alqahtani (2011), Lindgreen et al., (2012).

3.3.4 CONCEPTUALISATION OF RELATIONSHIP MARKETING AND THE VALUE THEREOF

Barnes (1994: 561) presents a number of ways in which relationship marketing has been conceptualised in recent years. This is also discussed by Brunyee (1996: 2) in further detail.

Relationship marketing is referred to as partnering (Barnes, 1994: 561). Barnes suggests that an alternative, more mutually rewarding understanding of relationship marketing involves the move toward partnering or single source buying (Ulaga, 2003: 677). The phenomenon is also prevalent in the South African automotive supply chain (Barnes, 2000b: 38). The benefits include enhanced performance, purchasing cost reduction and increased technical cooperation (Barnes, 1994 563). The partnering perspective implies moving away from trying to lock customers into the "*relationship"* against their will. Rather, relationship marketing involves having buyers and sellers as

willing partners in a relationship that rewards both parties (Grönroos, 1997: 407).

Three critical concepts regarding relational marketing are addressed by Barnes (1994) as discussed below.

Firstly, relationship marketing as locking the customer in; Barnes (1994, 562) points out that in the industrial marketing literature, little effort has been made to determine whether the motivation for a relationship was mutually felt or whether there was necessarily commitment from both sides. However, much emphasis has been placed on creating social and structural bonds which ensure long term relationships (Li, 2010: 316; Rehman, 2012: 598; Lindgreen et al, 2012: 208) through the creation of powerful barriers to an exit. According to Barnes (1994, 563), and also supported by Morgan and Hunt (1994), the most successful buyer-seller relationships appear to incorporate trust and commitment in the relationship. One of the objectives of this study is to investigate the role of commitment and trust and whether these two constructs can be viewed as antecedents or mediators of relationship marketing value in the South African automotive supply chain.

Secondly, relationship marketing as customer retention; as Barnes (1994: 561) asserts, relationship marketing should not be viewed as retention (repeat buying). Customer retention does not provide conclusive evidence of the existence of a *"relationship*" in that a customer may have a variety of reasons for returning to the same service provider. However, various researchers who maintain that relationship marketing results in retention include: Buchanan and Gillies (1990), Mudambi, McDowle and Mudambi (1995), Morgan and Hunt (1994), Weinstein (2002) Spiteri and Dion (2004), Ulaga and Eggert (2004: 311), and Damkuvienè and Virvilaitè, (2007).

Relationship marketing and retention is discussed in further detail later in this document. This study also determines whether relationship marketing value results in the retention of orders within the South African automotive industry.

Thirdly, and finally, relationship marketing as database marketing; Barnes (1994: 564) maintains that very few companies keep databases that track the buying trends of their customers. This activity is crucial to determining the needs of the customer and can contribute greatly towards relationship marketing value (Li, 2010: 313). The advantages of information technology enable marketers to compile extensive databases containing detailed information about customer purchasing behaviour. The relationship marketing concept has therefore also been extended to become synonymous with database marketing (Barnes, 1994: 563; Jüttner & Wehrli, 1994).

A newer development in relationship marketing is relationship value (Payne & Holt, 2001: 168; Li, 2010: 313)(which is also discussed in the next chapter). Relationship value leads towards business retention (Eggert, et al,. 2006), which will be discussed in the next section. Payne and Holt (2001: 162) state that relationship value specifically highlights the quality of the long term relationship.

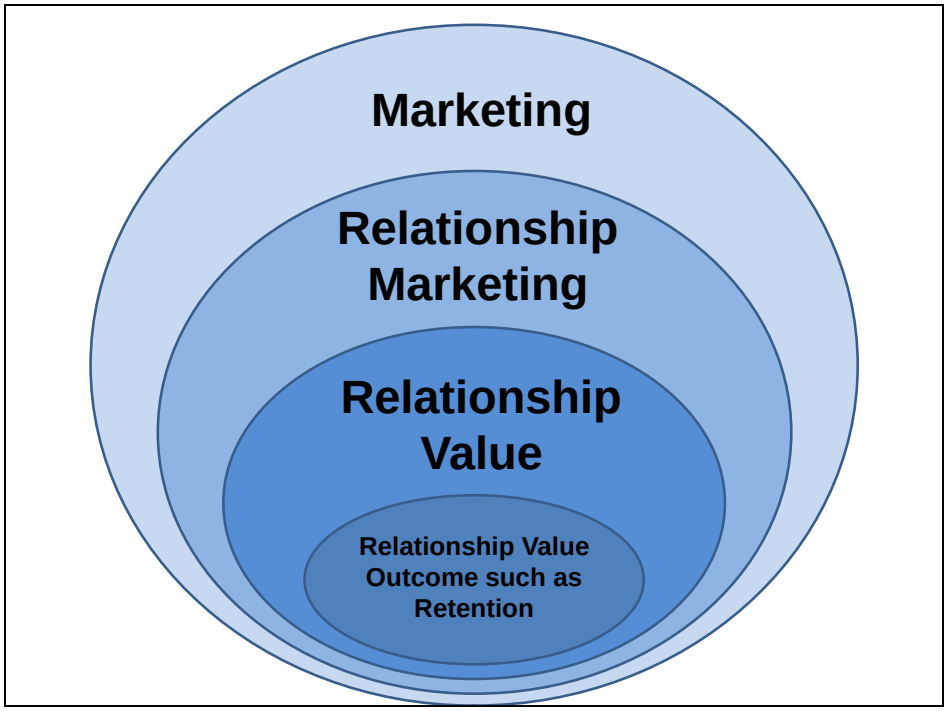


Figure 3.4 Relationship Marketing results in Relationship Value (Author)

It is also undisputed that relationship value (as a sub-section of relationship marketing)(Eggert, Ulaga & Schultz, 2006: 20; Li, 2010: 313) results in positive outcomes such as business retention (indicated as the core of diagram Figure 3.4)(Grönroos, 1997: 407; Ulaga, 2001; Watkins & Hill, 2008; Palmatier, 2008). For the purpose of this research, theory and dimensions relating specifically to relationship value are reviewed in order to determine the antecedents of, and mediators for, as well as the outcomes of relationship value.

3.4 RELATIONSHIP VALUE AND RETENTION

In general, academics and practitioners agree on the importance of customer retention, especially within the B2B arena (Jansen van Rensburg, 2008: 2). "*Retention is seen as a decision to continue business with a supplier (an action)…that constitutes both cognitive and behavioural actions*" (Jansen van Rensburg, 2008: 8). However, customer retention has not received sufficient attention in marketing literature (Jansen van Rensburg, 2008: 26). In the

literature, much attention is paid to retention through relationship marketing and its value; mainstream literature provides very little guidance on specific managerial practices associated with high levels of customer retention (DeSouza, 1992; Ang & Buttle, 2006: 84). Also, studies have not conclusively linked relationship marketing and its value (such as relationship value) to the embeddedness of substance to customer retention (Eriksson & Vaghult, 2000: 365). Therefore, this study also seeks to determine the extent to which relationship marketing and its value influence retention within the South African automotive supply chain. This will be spelled out in further detail in the chapter covering the methodology of this study.

Various authors maintain that relationship marketing and the value thereof (Li, 2010: 313) lead to retention, resulting in financial benefits and profitability (refer to Table 4.6 in chapter 4): Sharma, et al., (1999), Walter, Ritter and Gemunden (2001), Yau, McFetridge, Chow, Lee, Sin and Tse., (2000), Palmer and Bejou (1994), Walters and Lancaster (1999), Laitamäki,and Kordupleski (1997), Ulaga, (2001), Hunt and Derozier (2004), Watkins and Hill (2008), Mudambi, McDowle and Mudambi (1995), Damkuvienè and Virvilaitè (2007), Spiteri and Dion, (2004), Baxter (2009), Palmatier, et al,. (2008), and Van der Haar, Kemp and Omata (2001: 628). In a study conducted specifically on the South African automotive industry, Brunyee (1996, 28) also confirm that relationship marketing and the value it generate result in a significant increase in turnover.

The economic advantages of business retention through relationship value are numerous in business environments (Eriksson & Vaghult, 2000; Blankenburg Holm, et al., 199; Ulaga & Eggert, 2004: 311), while Grönroos (1997) suggests that customer retention leads to reduced sales and marketing costs compared to selling to new customers. Further to this, business retention, according to Ang and Buttle (2006, 85), results in other benefits such as increased purchasing volumes, a growth in customer referrals, a decrease in maintenance and administration costs and a

decrease in customer replacement costs. It was also found that retained customers are willing to pay higher prices than newly acquired customers and are less likely to receive discounted offers that are often made to acquire new customers (Jansen van Rensburg & Venter, 2004; Ang & Buttle, 2006: 85). It can be up to ten times more expensive to win a customer than to retain one and the costs associated with bringing a new customer up to the same level of profitability as the lost one are up to 16 times higher (Lindgreen, et al., 2000: 295; Ang & Buttle, 2006: 85). Various organisational processes can be associated with customer retention, such as the processes relating to customer satisfaction measurement, customer retention planning, quality assurance, win-back, and complaints-handling (Ang & Buttle, 2006: 85).

According to Weinstein (2002: 259) and Ang and Buttle (2006: 85), most companies spend a majority of their time, energy and resources pursuing new business so that 80% or more of marketing budgets is often earmarked for acquiring new business. However, only 23% of marketing budgets in UK organisations is spent on customer retention (Payne & Frow, 1999; Ang & Buttle, 2006: 85). Therefore, a more strategic approach should be considered in order to secure relationship marketing and the value brought about by it (Li, 2010: 313).

3.5 OBJECTIVES OF THIS STUDY

During the literature review process, it was found that more research relating to relationship marketing and relationship value theory and models are required. It was further determined that there is no agreement between authors regarding relationship value antecedents, mediators and outcomes relating to business retention.

The contribution of this study will be the compilation of a contextual literature model for the South African automotive supply chain to depict relationship value antecedents, mediators and outcomes.

The researcher also envisages contributing towards literature (which will be discussed further in chapter 4) by achieving the following objectives;

The primary objective of the research is to*: "develop a relationship value model for the South African automotive B2B supply chain".*

The major constructs addressed in the study are: relationship value antecedents, relationship value mediators and their relationship value.

The secondary research objectives of this study are:

- Objective 1: Determine RVM constructs in the relationship between Tier 1 and Tier 2 suppliers.
- Objective 2: Determine how trust and commitment relate to relationship value
- Objective 3: Determine the antecedents for the perception of relationship value by Tier 1 suppliers.
- Objective 4: Determine the relationship between relationship value and business retention.

3.6 CONCLUSION

The delivery of superior value to customers in the B2B arena is an ongoing concern of management and has constituted an important research topic since the 1980s. Value to customers incorporates four characteristics, namely it is subjective, it is conceptualised as a trade-off between benefits and sacrifices, the benefits and sacrifices are multifaceted, and the value perceptions are relative to the competition. The studies relating to value

moved through various stages with the most recent trends being the focus on customer relationship value.

This chapter addresses the different theoretic views on relationship value and specifically relationship value in the B2B environment. Relationship value (a part of relationship marketing) forms part of the marketing exchange theory. The traditional marketing mix is not sufficient (Lehtinen, 2011: 117) to add sustainable value in the B2B environment. Therefore, long term collaborative relationships rather than transactional exchange add value and result in business retention and profitability.

Numerous authors state that relationship value consists of sacrifices and benefits. It is therefore essential for organisations to ensure that their offering's benefits exceed the sacrifices. Only the benefits relating to relationship value are addressed in this study.

Based on existing theory, the author of this study defines relationship marketing value as "*the establishment and maintenance of an ongoing and interdependent relational exchange between the supplier and customer to deliver value for all stakeholders".* According to literature, relationship marketing value can lead to trust, commitment, cooperation, keeping promises, shared values and communication resulting in financial benefits.

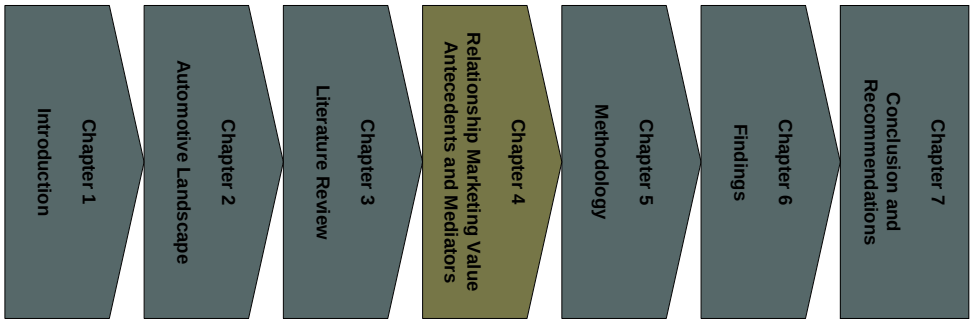
However, in terms of the literature reviewed, it is evident that authors disagree on which value constructs should be viewed as antecedents and mediators. Also, relationship value research in the South African automotive supply chain is limited.

This research envisages contributing towards academic literature by designing a SEM (Structural Equation Model) depicting relationship value antecedents, mediators and outcomes in the South African automotive supply

chain. Furthermore, this study determines whether relationship value in the South African automotive supply chain leads towards business retention as indicated by literature.

The next chapter will focus on theoretic models relating to antecedents, mediators and outcomes of relationship value.

CHAPTER 4 - RELATIONSHIP MARKETING VALUE ANTECEDENTS AND MEDIATORS



4.1 INTRODUCTION

The recent focus on relationship marketing value (Li, 2010: 313) studies aims to design specific models and frameworks revealing relational antecedents and mediators. However, consensus between authors fails to prove the definite role of antecedents and mediators in relationship marketing models (Palmatier, et al., 2006: 136). While research either focuses on relationship value antecedents, mediators or outcomes, this study aims to combine them. As relationship value is viewed as a result of relationship marketing, as discussed in the previous chapter, this chapter will review models and frameworks relating to relationship marketing and relationship value.

In this chapter, models depicting relationship value antecedents will be discussed while mediating constructs such as commitment and trust (Morgan & Hunt, 1994) are also investigated and discussed (refer to Table 4.6).

Finally, strategic approaches toward the introduction of a relationship marketing value strategy are discussed. It is very seldom found that manufacturers engage in proactive marketing, while reactive marketing may be detrimental to business (Swamidass, Baines & Darlow, 2001: 933). This scenario can also be observed in the South African automotive supply chain (Barnes, 2000a: 37). Hence, Tier 2 suppliers should consider relationship value strategies in order to satisfy the needs of their clients (Tier 1 buyers) and achieve business retention objectives. The study focus specifically on which relationship value constructs are required by the Tier 1 suppliers of the best Tier 2 supplier in the South African automotive supply chain.

The models and frameworks reviewed in this chapter all relate to the B2B market specifically and not towards the consumer industry.

4.2 ANTECEDENTS OF RELATIONSHIP MARKETING

Although relationship marketing and the perceived customer value thereof (Li, 2010: 313) is viewed as being important in the B2B environment, insufficient research is available (Payne & Holt, 2001: 160) to determine which value constructs can be viewed as antecedents of relationship marketing value.

The exchange theory forms the foundation of relationship marketing value and requires the determination of relational exchange antecedents (Dwyer, et al., 1987: 11). It is clear that a number of authors do agree that relationship marketing consists of various antecedents (Ulaga & Eggert, 2005, 2006, Morgan & Hunt, 1994; Wilson, 1995; Grönroos, 1997, 2004; Sharma, et al., 1999: 604; Palmatier, et al., 2006: 139). While some authors cannot reach agreement regarding which antecedents comprise relationship marketing value, certain constructs are viewed as being more prominent than others; however, more research is required (Dwyer, et al, 1987: 11) regarding

relationship marketing value antecedents (Spiteri & Dion, 2004: 675) and the measurement thereof (Payne & Holt, 2001: 177). Literature is also inconsistent regarding which value constructs could be viewed as mediators (Palmatier, 2006: 136).

Literature regarding relationship marketing value antecedents was reviewed and the most prominent views (according to the most prominent citations) of various authors including Grönroos (1997), Sharma, et al., (1999), Hunt and Arnett (2003), Ulaga (2003), Grönroos (2004), Ulaga and Eggert (2005), Palmatier, et al., (2006), Hunt, et al., (2006), Ulaga and Eggert (2006), Eggert, et al., (2006), are discussed below:

4.2.1 GRÖNROOS (1997, 2004)

Grönroos (1997, 2004) asserts that the two major antecedents of relationship marketing include interaction and communication, which result in relationship value (Figure 4.1)

Interaction is the core and most important process for relationship marketing and includes dialogue and knowledge sharing, that is, the sharing of information that might result in the co-design of a solution (Grönroos, 2004). According to Grönroos (2004), for the supplier to be successful, it has to align resources, competencies and processes with the customer's (the buyer in the case of this study) value-generating processes (Li, 2010: 313).

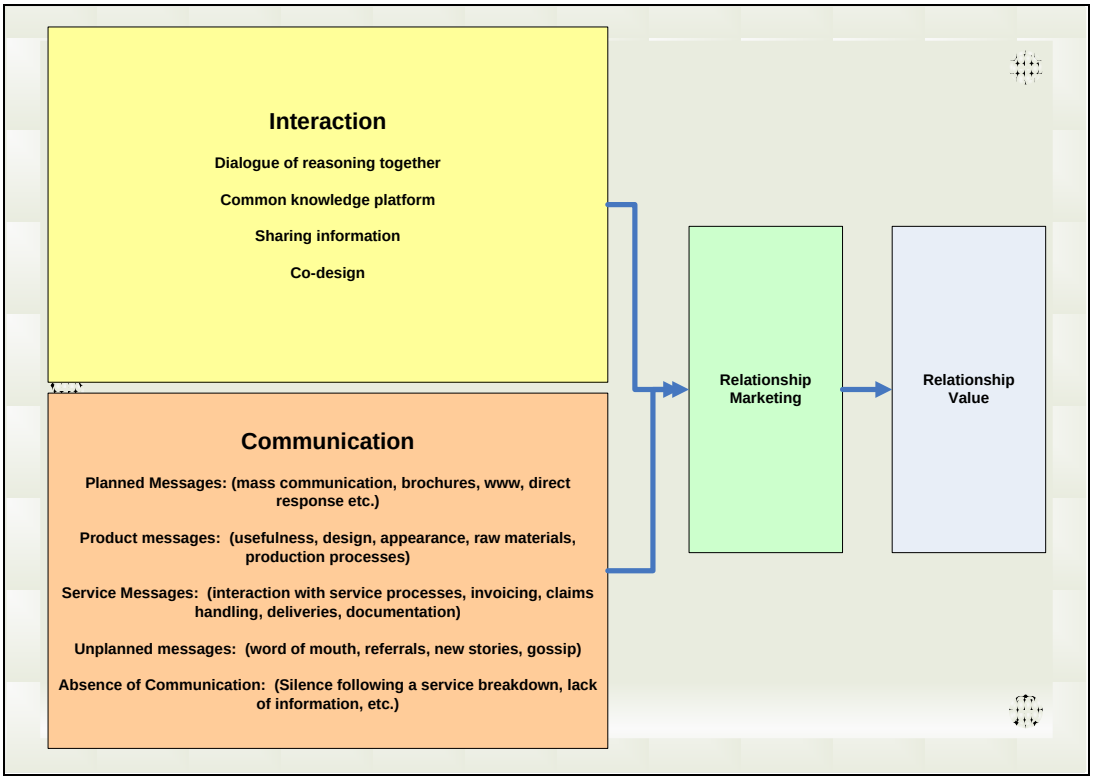


Figure 4.1 Processes of Relationship Marketing (Grönroos, 2004)

The communication process of relationship marketing includes planned messages such as mass communication, product messages such as design, service messages such as invoicing, and unplanned messages such as word of mouth, encapsulating integrated marketing communications (IMC). Communication as an antecedent is also promoted by Hunt and Arnett (2003), Eggert, et al., (2006: 21), Palmatier, et al., (2006: 137), and Hunt, et al., (2006). According to Grönroos (2004), if relationship marketing is to be successful, an integration of all marketing communications messages is needed to support the establishment, maintenance and enhancement of relationships with customers.

The "*ingredients*" for the interaction and communication process of the relationship marketing process comprise resources such as personnel, technologies, knowledge, and information (Grönroos, 1997). If the relationship marketing is to be successful, the supplier has to align its

resources, competencies and processes with the customer's value-generating processes (Grönroos, 2004; Li, 2010: 313).

Grönroos (2004) states that the actual product may be less important than the added value gained from relationship marketing (Li, 2010: 313). Customers not only look for goods or services, they also demand a much more holistic offering, including everything from information about the best and safest use of a product to delivering, installing, repairing, maintaining and updating solutions they have purchased.

Grönroos (1997; 2004) adds that in a transaction-oriented approach to marketing, the product is the core of the marketing mix. However, a relationship oriented or collaborative relationship offering is less reliant on the traditional marketing mix. Therefore, the traditional marketing mix approach does not necessarily apply to the B2B relationship approach (Lehtinen, 2011: 117).

In a relational context, one should go beyond the product concept in order to understand the value-creating benefits of an offering. Instead, the core benefit – the technical solution achieved by a physical good or service – is accompanied by additional services and value adds (Grönroos, 1997). In order to achieve the relational value, all strategies and resources should be aligned in order to execute the designed relationship marketing strategy (Grönroos, 1997; Swarmidass, et al., 2001), the result being that customer-perceived value follows from a successful and customer-oriented management of resources relative to the customer's sacrifice (Grönroos, 1997). In conclusion, Grönroos (1997; 2004) claims that the core antecedents for relationship marketing are communication and interaction, which result in relationship value (Li, 2010: 313).

Sharma, et al., (1999) focus more on the antecedent's inputs from salespeople; their view is discussed below.

4.2.2 SHARMA, ET AL., (1999)

Sharma, et al., (1999: 602) also emphasise the importance of relationship marketing (Rehman, 2012: 600) and the value gained from it (Li, 2010: 313) confirmed that the paradigm shift towards relationship marketing is critical for achieving and sustaining a competitive advantage. Sharma, et al., (1999: 602) emphasise the importance of personal selling within relationship marketing and noted that past research focused only on personal selling in relation to transactional, or product, selling.

This shift in paradigm is due to an increased recognition of the importance of customer satisfaction, retention strategies, and the performance of a firm. Sharma, et al., (1999: 604) also identify (sales people related) antecedents of relationship marketing, specifically referring to the sales process to secure business and business retention. As a result, Sharma, et al., (1999) emphasise the role of the key account representatives of an organisation who will represent the organisation when interacting with the client. The personalisation of an organisation is therefore very important. They mention that the following three antecedents are important (see Figure 4.2), namely:

- Relationship enhancing salespeople's behaviours:
    - Customer orientation
    - Customer trust
    - Pro-active behaviours
- Relationship enhancing behaviours
    - Customers' positive attitude
    - Mutual/common goals and satisfaction
- Relationship threats
    - Lack of freshness
    - Balance of professional and friendship relations
    - Unreasonable demands

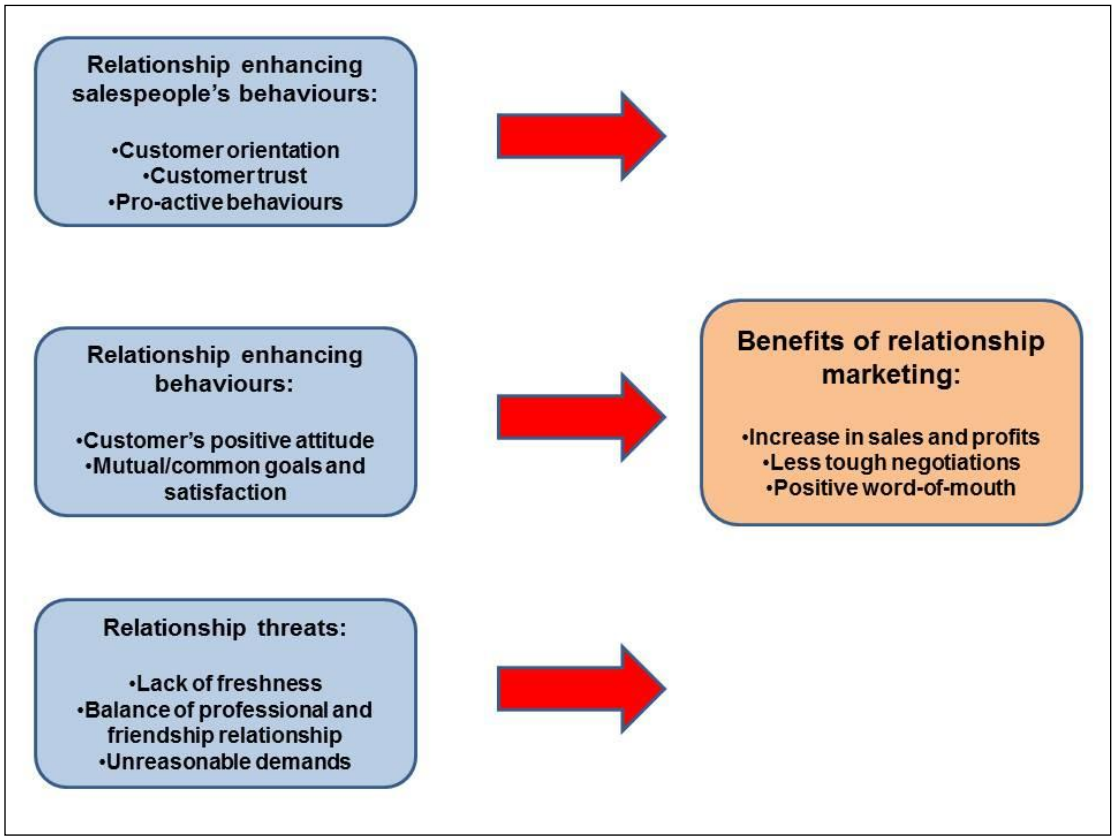


Figure 4.2 Relationship Marketing Antecedents and the Benefits (Sharma, et al., 1999: 604)

The rewards stemming from an effective relationship marketing (see Figure 4.2) approach (Sharma, et al., 1999: 603) will be the increase in sales and profits, less tough negotiations and positive word of mouth, which can be translated as the relationship value gained from the relationship marketing (Li, 2010: 313). On the contrary, dissatisfied customers may switch to a new supplier whose performance is more satisfactory (Sharma, et al., 1999: 603).

Sharma, et al., (1999: 604) separate the antecedents of relationships that enhance salespeople's behaviour into two main groups, namely, relationship enhancing behaviours and relationship threats. Close personal relationships with customers result in various benefits such as the increase of sales and profits, less tough negotiations, and positive word of mouth.

However, although personal relationships result in various benefits, if the organisation is not cautious, it can also result in threats or sacrifices such as complacency (Sharma, et al., 1999: 606).

Ganesan (1994: 1) as well as Sharma, et al., (1999: 604) aver that one of the most important antecedents for relationship marketing is dependence on seller / supplier where the seller provides various resources and inputs and ultimately this can lead to a trust relationship.

A meta-analysis by Palmatier, et al., (2006) further elaborates the relational antecedents, which will be discussed in the next section.

4.2.3 PALMATIER, ET AL., (2006)

Similar to Grönroos (2004), Palmatier, et al., (2006) also mention communication and interaction as important antecedents for relationship marketing. The meta analysis study of Palmatier (2006: 137) identifies dyadic antecedents (communication, similarity, relationship duration, interaction and conflict), seller focal antecedents (relationship investment and seller expertise) and customer focal (relationship benefits and dependence on seller) antecedents for relationship marketing, and is summarised in Table 4.1 are of the view that the supplier (or seller) should invest time, effort, money and resources in order to build stronger relationships. Further, the supplier (or seller) should also possess the necessary industry knowledge, experience and overall competency.

Also, both the customer and the supplier should interact through regular communication in order to share quality information (seeTable 4.1). It is also beneficial if both parties (customer and supplier) have similarity in terms of lifestyle, status and culture, which incorporates values and norms.

It is further important that both parties invest in frequent interaction over a long period in order to secure the success of the relationship.

Table 4.1 Relationship Antecedents and Mediators (Palmatier, et al., 2006: 137, 138)

Palamatier, et al., (2006) – Meta- Analysis			
Antecedent categories	**Antecedents**	**Mediators**	**Authors**
Dyadic Antecedents (Palmatier, Dant, Grewal & Evans, 2006)	**Communication** ▪ Amount ▪ Frequency ▪ Quality of Information shared between exchange partners	▪ Commitment ▪ Trust ▪ Relationship satisfaction ▪ Relationship quality	Anderson and Weitz,(1992); Mohr, Fisher,M and Nevin,(1996); Morgan and Hunt, (1994); Palmatier, Dant, Grewal and Evans; (2006).
	Similarity ▪ Common appearance and lifestyle ▪ Status between individual boundary spanners ▪ similar cultures, values and goals between buying and selling organisations		Crosby, Evans, and Cowles, (1990); Doney and Cannon, (1997); Morgan and Hunt (1994); Palmatier, Dant, Grewal and Evans, (2006).
	Relationship Duration ▪ Length of time that the relationship between the exchange partners has existed		Anderson and Weitz, (1989); Doney and Cannon, (1997); Kumar, Scheer and Steenkamp, (1995); Palmatier, Dant, Grewal and Evans, (2006).
	Interaction ▪ Frequency Number of interactions or number of interactions per unit time between exchange partners		Crosby, Evans and Cowles, (1990); Doney and Cannon, (1997); Palmatier, Dant, Grewal and Evans, (2006).
	Conflict ▪ Overall level of disagreement between exchange partners		Anderson and Weitz, (1992); Kumar, Scheer and Steenkamp, (1995); Palmatier, Dant, Grewal and Evans, (2006).

Seller Focal Antecedents (Palmatier, Dant, Grewal & Evans 2006)	**Relationship Investment** ▪ Seller's investment of time, effort, spending and resources focused on building a stronger relationship		De Wulf, Odekerken-Schröder, and Iacobucci, (2001); Ganesan, (1994); Palmatier, Dant, Grewal and Evans, (2006)
	Seller Expertise ▪ Knowledge, experience, and overall competency of seller		Crosby, Evans and Cowles, (1990); Lagace, Dahlstrom, and Gassenheimer, (1991); Palmatier, Dant, Grewal and Evans, (2006).
Customer Focal Antecedents (Palmatier, Dant, Grewal & Evans 2006)	**Relationship benefits** ▪ Benefits received, including time saving, convenience, companionship, and improved decision making		Henning-Thurau, Gwiner, and Gremler:,(2002); Morgan and Hunt, (1994); Reynolds and Beatty, (1999); Palmatier, Dant, Grewal and Evans, (2006).
	Dependence on Seller ▪ Customer's evaluation of the value of seller-provided resources for which few alternatives are available from other sellers		Hibbard, Kumar, and Stern, 2001; Morgan and Hunt, 1994; Palmatier, Dant, Grewal and Evans, 2006.

Table 4.1 also reveals that it is also beneficial for the supplier if the customer is more dependent on the supplier because of the limited number of certain available suppliers. Customers also require benefits from the supplier such as time saving convenience, companionship and improved decision making support.

Palmatier, et al., (2006: 137) also introduced mediators such as commitment, trust, relationship satisfaction and relationship quality. Mediators will be discussed later in this chapter.

Hunt, et al., (2006) also elaborated on antecedents and their views are reflected in the next section.

4.2.4 HUNT, ARNETT AND MADHAVARAM, (2006)

Hunt, et al., (2006: 72) state that "*The purpose of relationship marketing theory is to provide systemised structures that, at the minimum, explain the relationship marketing phenomenon*". Hunt, et al., (2006: 73) then continue by stating that relationship marketing and the value thereof (Li, 2010: 313) in the manufacturing industry is known as "*supplier partnerships*" where both parties need and rely on each other to achieve requirements such as just-in-time production schedules and total quality management (TQM).

Hunt, et al., (2006: 72) maintains that the reasons for companies in the manufacturing industry to enter into these partnerships are due to;

Firstly, partnerships contribute towards the commitment (Alqahtani, 2011: 586; Rehman et al 2012: 600; Lindgreen et al, 2012: 210) and trust theory (proposed by Morgan & Hunt, 1994). Customers have the desire to commit which results in relational exchange and relationship marketing value. Further, customers desire relationship partners that they can trust (Hunt, et al., 2006: 75; Lindgreen et al, 2012: 210).

Secondly, because of relational exchange, companies will achieve greater efficiency and therefore reduce costs and risk (Hunt, et al., 2006: 76). This corresponds with findings by Sheth and Parvatiyar (1995: 256) who note that customers engage with other firms to; "*achieve greater efficiency in their decision making, to reduce the task of information processing, to achieve more cognitive consistency in their decisions, and to reduce perceived risk associated with further choices*".

Thirdly, customers enter into a relationship or partnership because of shared values and goals (Hunt, et al., 2006: 76). Bagozzi (1975: 273) also initially stated:

> *The most common and determinative motive for entering a marketing relationship is that consumers see the relationship as a means for fulfilment of the goal to which one hade earlier, and perhaps tentatively, committed. That is, people have goals to acquire a product or use a service, and a relationship then becomes instrumental in goal achievement.*

Fourthly and finally, Vargo and Lusch (2004: 15), cited in Hunt, et al., (2006: 76), opined that the focus is shifting from tangibles to intangibles such as skills, information, knowledge and interconnectivity and ongoing relationships. Therefore, relationships address individual needs, wants, tastes and preferences (Hunt, et al., 2006: 76).

In summary, Hunt, et al., (2006: 76) aver that relationship marketing theory confirms that relational benefits derived from such relational exchanges exceed the costs (or sacrifices).

Hunt, et al., (2006: 78) identified factors or antecedents resulting in relationship marketing value which include trust, commitment, co-operation, keeping promises, shared values and communications (see Table 4.2).

Table 4.2: Relational Antecedents (Adapted from Hunt, et al., 2006: 78)

Hunt, et al., (2006)		
Antecedent Category	**Antecedents**	**Outcomes**
Relational Factors	▪ Trust ▪ Commitment ▪ Cooperation ▪ Keeping promises ▪ Shared values ▪ Communication	▪ Competitive Advantage ▪ Financial performance ▪ Satisfaction ▪ Learning ▪ Propensity to stay ▪ Acquiescence ▪ Decreased uncertainty

Hunt, et al., (2006: 77) claim that the six relationship marketing value antecedents listed above are cited the most often in literature. The most prominent authors who contributed to the six factors (also mentioned in chapter 3), according to Hunt, et al., (2006: 77), are (see Table 4.2):

- Trust (Dwyer, et al., 1987; Morgan & Hunt, 1994; Sividas & Dwyer, 2000; Smith & Barclay, 1997; Wilson, 1995)
- Commitment (Anderson & Weitz, 1992; Day, 1995; Geyskens, et al., 1999; Moorman, et al., 1992)
- Cooperation (Anderson & Narus, 1990; Morgan & Hunt, 1994)
- Keeping promises (Grönroos, 1990, 1994)
- Shared Values (Brashear, et al., 2003; Morgan & Hunt, 1994; Yilmaz & Hunt, 2001)
- Communication (Mohr & Nevin, 1990; Mohr, et al., 1996).

The benefits and outcomes from the abovementioned relationship marketing value antecedents are numerous, according to Hunt, et al., (2006 : 77); for example, competitive advantage, financial performance, satisfaction, learning, propensity to stay, acquiescence, and decreased uncertainty (see Table 4.2).

Chapter 3 explained how relationship marketing results in relationship value. The following section will specifically follow on relationship value. The theory of Ulaga (2003), Ulaga and Eggert (2005), and Eggert, et al., (2006) regarding relationship value antecedents are discussed next.

4.2.5 ULAGA (2003); ULAGA AND EGGERT (2005); EGGERT, ULAGA AND SCHULTZ (2006)

The most comprehensive depiction of relationship value (as a result of relationship marketing) antecedents in the B2B manufacturing segment is mainly formulated in literature by Ulaga (2003), Ulaga and Eggert (2005) and Eggert, et al., (2006).

Ulaga (2003) formulate relationship value antecedents (or dimensions), and later Ulaga and Eggert (2005) and Eggert, et al., (2006) divide them into three main categories, namely core offerings, the sourcing process and customer operations as per Table 4.3.

Table 4.3: Relationship Value Core Offering, Sourcing Process and Customer Operations (Ulaga, 2003; Ulaga & Eggert, 2005; and Eggert, et al., 2006)

Empirical Research			
Discipline	**Benefit**	**Activity**	**Costs**
Core Offering	**Product Quality**	• Product performance • Product reliability • Product consistency	Direct Cost
	Delivery Performance	• On-time delivery • Delivery flexibility • Accuracy of delivery	
Sourcing Process	**Service Support**	• Product-related services • Customer information • Outsourcing of activities	Acquisition Cost
	Personal Interaction	• Communication • Problem solving • Mutual goals	
Customer Operations	**Customer know-how**	• Knowledge of supply market • Improvement of existing products • Development of new products	Operation Cost
	Time-to-market	• Design tasks • Prototype development • Product testing and validation	

Detailed discussions on Table 4.3 follow below.

4.2.5.1 Core offering

The core offering consists of product quality and delivery performance.

- Product Quality: at core, manufacturers engage in relationships with their industrial suppliers in order to source products. Therefore, the supplier's product offering is the primary core of relationship value (Homburg & Rudolph 2001: 17). Previous research into supplier value in the business markets has revealed that purchasing managers focus on product performance and reliability when assessing a supplier's

offering (Ulaga & Chacour, 2001). Product benefits are regarded as the key dimension of relationship value (Ulaga & Eggert, 2003; 7).

- Delivery Performance entails the meeting of delivery schedules through coordination (Ulaga, 2003: 684), in particular, value delivery (Li, 2010: 313) performance of procurement managers (Ulaga & Eggert, 2006: 123). Delivery flexibility is also required with a just-in-time manufacturing process when spikes in demand, or changes in the mix of products or in the case of emergency deliveries occur (Ulaga, 2003: 684). Finally, the accuracy of deliveries is also crucial in the manufacturing industry, which is particularly important in the automotive supply chain.

The core offering also involves a direct cost and according to Ulaga and Eggert (2006: 123), this entails the actual price charged by the supplier for the core offering.

4.2.5.2 Sourcing process

The sourcing process encapsulates service support and personal interaction.

- Service Support; in most business markets, manufacturers search for complete solutions rather than products (Ulaga & Eggert, 2003). Therefore suppliers typically provide a blend of tangible products and a range of accompanying service elements (Hutt & Speh, 1998: 345). Anderson, et al., (1993) identify "*service benefits*" as part of the bundle of benefits a company receives in exchange for the price it pays for a market offering. Similarly, Lapierre (2000: 125) identifies "*service-related*" benefits as a key driver of customer-perceived value in the industrial business market. Hence, Ulaga and Eggert (2003) regard service quality as a second key dimension of relationship value;

- Personal Interaction: Granovetter (1985: 490) believes that economic action in modern industrial society is embedded in "*concrete personal relations and structures (or networks) of such relations*". Although business relationships are established between organisations, actually, they are managed by individuals within these organisations and therefore "*people make relationships work or fail*" (Wilson & Jantrania, 1995). Also, within the context of buyer-seller relationships, Dwyer, Schurr, and Oh (1987) mention social benefits as being part of the relational exchange. Buyers consider personal relationships as one important aspect of purchasing (Dwyer & Tanner, 1999; Ulaga & Eggert, 2005).

A cost is also associated with the sourcing process, namely acquisition cost. Ulaga and Eggert (2006: 126) formulate this as inventory, order-handling and incoming-product inspection costs.

4.2.5.3 Customer operations

Customer operations comprise know-how and time-to-market.

- Customer Know-How: in the business environment, manufacturers develop relationships that go beyond the exchange of products and services, and turn to suppliers to help them achieve a strong competitive position (Ulaga & Eggert, 2003). Kalwani and Narayandas (1995) aver that manufacturers search to gain access to the supplier's resources, skills and strength in long term manufacturer relationships. Therefore, Ulaga and Eggert (2003) include know-how as a third dimension of relationship value.

- Time-to-Market refers to reduced cycle times as suppliers are constantly faced with increased pressure to develop or manufacture

products faster (Ulaga & Eggert, 2006: 127). Stalk (1988) noted that competitive advantage in manufacturing industries has shifted from low labour costs and economies of scale to flexible manufacturing. Researchers such as Ulaga and Eggert (2003) as well as Wilson and Jantrania (1995) acknowledged that a supplier's ability to reduce time-to-market for its customers represents a source of competitive advantage in a buyer-seller relationship.

The customer operations process also have operational costs associated with it which entail manufacturing process costs, tooling and warranty (Ulaga & Eggert, 2006: 127).

However, the Models presented by Ulaga (2003), Ulaga and Eggert (2005) and Eggert, et al., (2006) also require literature contributions such as;

- The core dimensions model pertaining to relationship, developed by Ulaga, tested as a snapshot model across various industries (Ulaga & Eggert, 2005). Ulaga (2003) as well as Ulaga and Eggert (2005) further assert that one of the shortcomings of the model is that it was not tested in specific business markets such as the automotive industry. Ulaga and Eggert (2005) claim that different industries will emphasise different dimensions and might even require additional dimensions: for example, a machine manufacturing industry might value know-how more than an office equipment industry which might value social benefits more.

- Ulaga and Eggert (2005) suggested that a replication of the study in other countries would allow for a cross-border validation of the model and results.

- Furthermore, Ulaga and Eggert (2006) asserted that there needs to be a greater understanding of which value-creating dimensions of a business relationship represent a promising basis for differentiation. In other words, from a vendor perspective, which value drivers are keys when competing for main supplier status?

- Finally, the model developed by Ulaga measures the relationship value of suppliers and assists buyers to prioritise suppliers according to a relationship value score. The theories reviewed regarding relationship value all hold that this can result in a competitive advantage (Ulaga & Eggert, 2006: 119). However, none of the models tested whether benefits can outweigh price (sacrifices), nor, more specifically, considered those that are applicable in the automotive supply chain. Dwyer, et al., (1987) asserts that: "*It is possible, however, that real or anticipated costs outweigh the benefits of relational exchange*".

The models and frameworks presented by Ulaga (2003), Ulaga and Eggert (2005) and Eggert, et al., (2006) elaborated on the antecedents leading to relationship marketing value. However, some authors also disagree on the role that mediators play in relation marketing value. Mediators such as commitment and trust are promoted as being the most prominent (Morgan & Hunt, 1994). These two mediators will be discussed in further detail in the following section.

4.3 MEDIATORS OF RELATIONSHIP MARKETING VALUE

Various authors motivate that trust and commitment can be viewed as relationship marketing value mediators (Palmatier, et al., 2006: 137). The most prominent KMV study was undertaken by Morgan and Hunt (1994) and it still enjoys prominence with regards to their commitment-trust mediating theory while various authors such as Sheth and Parvatiyar (1995), Garbarino

and Johnson (1999), Payne and Holt (2001), Ulaga and Eggert (2002: 15), Gounaris (2003), and Palmatier, et al., (2006) referred to the importance of the KMV model.

Although the commitment and trust are viewed as salient mediating factors, literature still needs to be expanded. According to Ulaga & Eggert (2005: 91), it would be interesting to integrate the concept in prevailing models of relationship marketing, that is, Morgan and Hunt's (1994) KMV model of relationship marketing, resulting in value (Li, 2010: 313). Mediator variables such as trust and commitment are not yet fully modelled or empirically tested and thus also present fruitful areas for future research (Spiteri & Dion, 2004: 685); and despite the importance of trust and commitment, there is still limited academic research regarding the affect of trust and commitment in marketing exchange relationships (Gounaris, 2005: 126) more research is required in this respect (Gounaris, 2005: 137).

Trust and commitment as relationship marketing value mediators are key to this research and will be discussed in further detail in the next section.

4.3.1 COMMITMENT-TRUST MEDIATOR THEORY (MORGAN & HUNT, 1994)

Apart from relationship marketing value antecedents, this study also intends to determine the role of mediating factors such as commitment and trust by means of a model in the South African automotive supply chain. Garbarino and Johnson (1999: 72) aver that it is important to draw up a model with relation to relationship marketing value in order to determine the role of trust and commitment and to depict the future intentions of customers, namely business retention.

Various contextual factors (antecedents and mediators) contribute to the success or failure of specific relationship marketing value efforts, and

according to Morgan and Hunt (1994: 22), the most prominent mediating factors are trust and commitment. Garbarino (1999: 73) confirmed that the two mediating factors, commitment and trust (identified by Morgan & Hunt 1994), are key factors required to succeed with long term relationship exchange.

Table 4.4: Commitment and Trust, Key Mediating Variable (KMV): (Morgan & Hunt, 1994)

Morgan and Hunt 1994 (Commitment-Trust Theory of RM) **KMV Key Mediating Variable**		
Antecedents	**Mediators**	**Outcomes**
▪ Relationship termination costs ▪ Relationship benefits ▪ Shared values	Commitment	▪ Acquiescence ▪ Propensity to leave ▪ Cooperation ▪ Functional conflict ▪ Uncertainty
▪ Shared values ▪ Communications ▪ Communication ▪ Opportunistic behaviour	Trust	

The KMV proposed by Morgan and Hunt (1994: 22) is conducive to relationship marketing success. Furthermore, the KMV model of Morgan and Hunt (1994: 22) positions commitment and trust between important relationship antecedents and outcomes, as per Table 4.4. This model was measured against an alternative model which depicts commitment and trust as antecedents for relationship marketing.

The relationship marketing value commitment-trust theory was tested by Vakis (1998, 55) in the South African automotive supply chain where it was found that commitment and trust are key factors because they encourage marketers to:

- Work at preserving relationship investments by co-operating with exchange partners (Morgan & Hunt, 1994: 22);
- Resist attractive short-term alternatives in favour of the expected long term benefits of staying with existing partners (Morgan & Hunt, 1994: 22);
- View potentially high-risk actions as being prudent because of the belief that their partners will not act opportunistically (Morgan & Hunt, 1994: 22).

Vakis further asserts that both commitment and trust (not just one or the other) produce outcomes that promote efficiency, productivity, and effectiveness. In short, commitment and trust lead directly to co-operative behaviours that are conducive to relationship marketing value success (Vakis, 1998: 55).

Other authors who support the commitment and trust mediator theory are Palmatier, et al., (2006: 137), who define commitment as "*an enduring desire to maintain a valued relationship*" and trust as "*confidence in an exchange partner's reliability and integrity*".

However, Palmatier, et al., (2006: 137) add that there is little agreement among researchers as to which mediators are the most appropriate to influence favourable outcomes (Palmatier, et al., 2006: 139).

Commitment and trust as relationship marketing mediators will be discussed in more detail below.

4.3.2 COMMITMENT

Morgan and Hunt (1994: 23) define relationship commitment as "*an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely*". This corresponds with the definition proposed by Moorman, et al., (1992: 316), which states that; "*commitment to the relationship is defined as an enduring desire to maintain a valued relationship*". Wilson (1995) maintains that "*commitment implies importance of the relationship to the partners and a desire to continue the relationship in the future*", while Gounaris (2005) opines that "*commitment is the desire for continuity manifested by the willingness to invest resources into the relationship*" and Jansen van Rensburg (2008: 98), that "*relational commitment exists when a partner believes that relationship is important enough to warrant maximum efforts at maintaining that relationship in the long term*". Moorman, et al., (1992: 316) adds to these definitions that through commitment partners have the "*unwillingness to consider partners other than those in the current relationship*".

Commitment as a central factor of relationship marketing is supported by the following authors: Dwyer, Schurr and Oh (1987: 19), Anderson and Weitz (1992), Morgan and Hunt (1994), Wilson (1995), Mudambi, McDowle and Mudambi (1995), Gummerson (1997), Ganesan and Hess (1997), Hocutt (1998), Garbarino and Johnson (1999: 71), Fontenot and Wilson (1999), Wong and Sohal (2002), Hunt, Arnett and Madhavaram (2003), Spiteri and Dion (2004), Gounaris (2005), Palmatier, Dant, Grewal and Evans (2006), Hunt, Arnett and Madhavaram (2006), Damkuvienè and Virvilaitè (2007), Palmatier (2008), and Watkins and Hill (2008), Alqahtani (2011), Rehman et al (2012) and Lindgreen et al (2012). Commitment adds value to the relationship and people by nature are unwilling to commit to something they do not value (Moorman, et al., 1992: 316).

Commitment is also important in a relational exchange. Dwyer, et al., (1987: 23) assert that commitment represents the highest stage of relational bonding (Alqahtani, 2011: 586; Rehman et al 2012: 600; Lindgreen et al, 2012: 210). However, commitment to a long term relational exchange goes beyond a simple evaluation of the costs and benefits (Lapierre, 2000: 125) associated with a relationship, as Day (1995: 299) notes that before mutual benefits can realise, business partners must demonstrate to each other that they are fully committed to the relationship. Also, to establish true commitment, each partner must contribute assets, resources and capabilities that will enable the alliance to accomplish what neither can do alone (Day, 1995: 299). Commitment only develops fully when relationships enter an advanced stage which is characterised by the parties engaging their resources (Geykens, et al., 1999: 225).

Commitment also implies a willingness to make short-term sacrifices in order to realise long term benefits (Ganesan & Hess, 1997: 441). Commitment will therefore lead to customer retention, which is also a focus of the current study.

Another relationship marketing value mediator that receives much interest is trust, which is further discussed below.

4.3.3 TRUST

Trust is conceptualised through literature in the sense that it is an assurance of developed reliability and integrity between the customer and the supplier (Gounaris, 2005: 127). Gounaris (2005: 127) further asserts that "*The more the customer trusts the supplier, the higher the perceived value of relationship*". Therefore, the chances are greater that the customer will remain in the relationship and more orders will result because of this.

Various authors elaborate on the trust concept in relation to relationship marketing (Palmer & Bejou, 1994; Morgan & Hunt, 1994; Wilsin, 1995; Mudambi, McDowle & Mudambi, 1995; Gummerson, 1997; Ganesan & Hess, 1997; Hocutt, 1998; Palmatier, 2008; Garbarino & Johnson, 1999: 71; Fontenot & Wilson, 1999; Sharma, Tzokas, Saren & Kyziridis, 1999; Dwyer, et al., 1987; Sharma, et al., 1999; Lapierre, 2000; Wong & Sohal, 2002; Hunt, Arnett & Madhavaram, 2003; Spiteri & Dion, 2004; Gounaris, 2005; Palmatier, Dant, Grewal & Evans, 2006; Hunt, Arnett & Madhavaram, 2006; Damkuvienè & Virvilaitè, 2007; Watkins & Hill, 2008; Hald, Cordón, Vollmann, 2008; Lindgreen et al, 2012: 210).

Wilson (1995) avers that trust is the fundamental relationship model building block for most models. The definition of trust is formulated by the following authors as:

- A willingness to rely on an exchange partner in whom one has confidence (Moorman, Zaltman & Deshpande, 1992; Wilson, 1995);
- One party believing that its needs will be fulfilled in the future by actions taken by the other party (Anderson & Weitz, 1990; Wilson, 1995);
- A party's expectation that another party desires coordination, will fulfil obligations and pull its weight in the relationship (Dwyer, Schurr & Oh, 1987; Wilson, 1995);
- The belief that a party's word or promise is reliable and a party will fulfil his/her obligations in an exchange relationship (Schurr & Ozanne, 1985; Wilson, 1995); and
- A "*generalised expectancy held by an individual that the word of another… can be relied on*" (Rotter, 1967: 65; Morgan & Hunt, 1994: 23).

Morgan and Hunt (1994) state that the definitions of trust highlight the importance of confidence on the part of the trusting party (Lindgreen et al, 2012: 210). This will result in the trustworthy party being reliable with a high degree of integrity, which is associated with such qualities as commitment, competence, honesty, fairness, responsibility, helpfulness, and benevolence (Morgan & Hunt, 1994: 23; Anderson & Narus, 1990: 45). Trust has the additional advantage of indirectly contributing positively towards commitment (Morgan & Hunt, 1994; Geykens, et al., 1999: 225; Gounaris, 2005: 128; Alqahtani, 2011: 586; Rehman et al 2012: 600 and Lindgreen et al, 2012: 210).

Although various authors touch on trust as an integral part of relationship marketing, Dwyer, et al., (1987: 23) opine that the current research has only "*scratched the surface of its rich conceptual and empirical foundations*".

The advantage of trust resides in the fact that the more the customer trusts the supplier (Sharma, et al., 1999: 604), the higher the perceived value of that relationship, and consequently, the higher the probability that the relationship will be retained (Jansen van Rensburg, 2008: 100).

However, relationship marketing value antecedents and mediators need careful planning in order to retain business. Suppliers need to evaluate their offerings and implement specific long term relationship strategies in order to mitigate risk and to provide benefits to the customer in the long run (Cann, 1998: 393). A strategic approach to creating relationship value will be discussed in the next section.

4.4 RELATIONSHIP MARKETING VALUE: STRATEGIC APPROACHES

Swamidass, et al., (2001: 933) opine that marketing should exist on an equal footing to that of the manufacturing functions. However, the manufacturing

process falls under the spotlight while managers do not realise the importance of the marketing process, especially relationship marketing (Rehman, 2012: 600), in order to maintain a competitive advantage.

As mentioned ealier, the old marketing paradigm of transaction marketing is slowly evolving into one that emphasises long term relationships. This is due to the changing needs of customers, the customers' new definition of value (Vakis, 1998: 7), as well as many other changing factors in the external economic environment.

Another current industrial manufacturing trend is to downsize the number of suppliers and to focus on closer relationships with key suppliers (Ulaga, 2003; Ulaga & Eggert, 2004: 312). This implies that suppliers therefore need to understand how they can create and deliver higher value offerings in B2B relationships. Ulaga and Eggert (2004: 312) maintain that customers should invent supplier performance evaluation tools and supplier development programmes in order to help them develop methods to analyse suppliers. Hence, suppliers need to understand how to build and manage supplier relationships (Ulaga & Eggert, 2004: 312) and to prevent being side lined by customers.

It is imperative that mutual value is to be continuously created with individual customers, and that the focus no longer falls on product and its mass production, communication, distribution and promotion (Gordon, 1998: 54).

However, it is very seldom that manufacturers (and suppliers) engage in proactive marketing and Swamidass, et al., (2001: 933) maintain that reactive marketing may be detrimental to business. The study by Swarmidass, et al., (2001: 945) conclude that within the manufacturing environment, the reactive marketing process influences competitiveness negatively. Therefore, it is important for South African automotive component suppliers to pro-actively

engage in relationship marketing value strategies, as confirmed by Brunyee (1996: 14) and Van der Wath (1996: 1). Hence, new capabilities are required to ensure that relationship marketing and the value thereof (Li, 2010: 313) is strategically aligned with company objectives as well as customer needs (Gordon, 1998: 54). Thus the introduction of a dedicated strategy to ensure relationship value is imperative and more attention should be paid to introduce a proper strategy in order to ensure exactly that. Having a step-by-step process to follow for the introduction of a new relationship marketing value strategy alleviates anxiety and frustration (Cann, 1988: 403). Such a strategy also functions as an important organising force in the firm because it directs all employees to focus on customer requirements, and provides the means for the firm to position its offerings in the minds of customers.

Market driven firms should strategically match their resources, skills, and capability with particular customer needs in order to deliver relationship marketing value (Gordon, 1998: 54). By understanding such needs, suppliers can define value from the customer's (Tier 1 supplier) perspective and convert that information into requirements for creating satisfied customers (Van der Wath, 1996: 11). Suppliers should develop the resources within their own organisations, namely, people, processes, technology, knowledge and insight to positively contribute towards the firm's capabilities as this will determine the degree to which the company can meet these requirements and provide greater relationship marketing than its competitors (Gordon, 1998: 54).

Also retention, as a result of relationship marketing value, should be strategically approached in the B2B market (Dawkins & Reichheld, 1990; Kalvani & Narayandas, 1995; Ang & Buttle, 2006) and firms should understand the mechanics behind customer retention (Eriksson & Vaghult, 2000: 364). Although generic characteristics of products, services and interventions may lead to relationship marketing value customer retention, it should be understood in relation to the situation, the customer and the

industry in which it is embedded (Eriksson & Vlaghult, 2000; Ang & Buttle, 2006: 85).

Dwyer, et al., (1987), Dawkins & Reichheld, 1990; Cann (1998) and Swarmidass, et al., (2001) recommend how relationship marketing strategies should actually be implemented in the B2B market, which will be discussed next.

4.4.1 DEVELOPING RELATIONSHIPS STRATEGICALLY – DWYER, ET AL., (1987)

Dwyer, et al., (1987) elaborate on the importance of the introduction of a strategy in the relational exchange context. In order to achieve this, they (Dwyer, et al., 1987: 15) identify a five step procedure to introduce a relationship marketing value process, namely; awareness, exploration, expansion, commitment, and dissolution.

- Awareness; the crucial stage during which two organisations have identified each other as possible partners. At this point, no interaction has occurred (Dwyer, et al., 1987: 15) but positioning of the organisaiton in terms of the competition and the client is imperative.

- Exploration; the search and trial phase during which companies attempt to assess issues such as obligations and cost-benefit trade-offs. All benefits and sacrifices are considered in order to explore the best fit with benefits for both. This is a very fragile period as minimal investment and interdependence make it easy to terminate the contract (Dwyer, et al., 1987: 16).

- Expansion; refers to the process of deriving benefits from the increasing interdependence between companies. Benefits should be

continuous and interdependence between both parties exists. Both companies also become more satisfied with the delivery of promised performances, and co-operation deepens (Dwyer, et al., 1987: 18).

- Commitment; Dwyer, et al., (1987: 19) explain that "*commitment refers to an implicit or explicit pledge of relational continuity between exchange partners".* The emphasis shifts to the continuity of the established relationship and resources are used to maintain the social bonds (Dwyer, et al., 1987: 19).

- Dissolution describes the eventual withdrawal of one party from the relationship. No relationship can continue indefinitely, which also implies that dissolution can be triggered throughout the relationship development process (Dwyer, et al., 1987: 15; Brunyee, 1996: 11). All reasonable efforts should be made to prevent the dissolution phase and to ensure that the relationship continues in the long run.

Further to Dwyer, et al., (1987), Dawkins and Reichheld (1990) also introduce a strategic approach to introduce a relationship marketing value strategy as discussed below.

4.4.2 STRATEGIC APPROACH TO RELATIONSHIP MARKETING AND THE VALUE THEREOF - DAWKINS & REICHHELD, 1990

Dawkins and Reichheld (1990) opine that relationship marketing which results in relationship value should also be strategically addressed at top level and should be continuously monitored. As part of the retention review, organisations should include the following eight steps (Dawkins & Reichheld: 1990: 45):

- What is the customer retention rate, by line of business, in each of the areas in which the company does business?

Retention should be clearly defined and clear guidance on what retention is should be furnished. Retention can be calculated annually or monthly by defined criteria which might differ from company to company or from industry to industry.

- How does the company's current retention rate compare with the previous year's rate?

  If the retention rate is slipping, management should seek explanations and take measures to circumvent this. Preferably customers should be interviewed to determine the real cause for the decrease in retention.

- What is the root cause of most customer defections?

  Although difficult, this cause should be determined and management should not blindly trust market research results and should rather approach customers directly. When customers are asked directly, for instance, why they have stopped buying, they may be more willing to answer the question.

- How do the company's retention rates compare with those of competitors?

  It is crucial to determine the position of one's company in relation to the competition. When customers regularly buy from one's organisation as well as the competition, it is important to establish the retention rate between one's firm and that of the competition. Telephone surveys may assist in this regard.

- What is the right target of defection for the company?

It is important that companies determine which clients are the most valuable and why. Procedures should be put into place to ensure the retention of these.

- What happens to company profits if it were to increase its retention rate by financial benefits?

  With the help of a customer retention paradigm, it is possible to link retention to profits. This should be regularly reviewed by senior management and the results should encourage employees to help reach the retention goals.

- What is management's plan to increase the company's retention rates, and how will management and the board track progress?

  Once the customer retention economics are understood, it is possible to develop specific investment plans to increase retention. Strengths and weaknesses can be analysed from the retention performance data. Strategies can be put into place to increase retention rates with regards to dissatisfied customers.

- What are the best ways to tie customer retention targets to planning and budgeting and incentive compensation?

  Managers are reluctant to take on new initiatives such as customer retention unless they are compensated accordingly. The board should be convinced that retention should be linked to compensation incentives.

It is important that suppliers investigage relationship value drivers and seek strategic ways to implement these drivers in order to retain business.

Cann (1998) also elaborates on the introduction of a relationship strategy.

4.4.3 RELATIONSHIP STRATEGY IMPLEMENTATION – CANN (1998)

Cann (1998: 393) is also spelling out that a long term relationship (Li, 2010: 316; Rehman, 2012: 598; Lindgreen et al, 2012: 208) between the supplier and the customer is the best road to success in the long run. Cann (1998) observes that although this is common knowledge, it is not always common practice. One reason for this is that some organisations do not know how to develop and/or maintain a relationship with their customers.

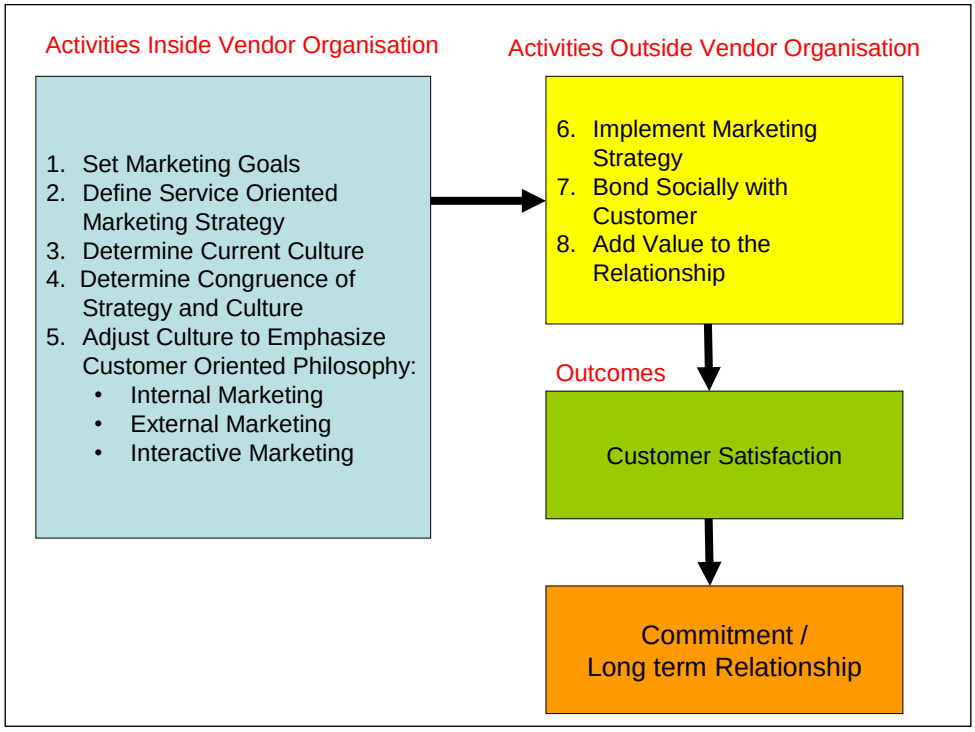


Figure 4.3: The Expanded Business-to-Business Relationship Building Process (Cann, 1998: 394)

Cann (1998: 394) introduced a model (Figure 4.3) of how to expand business-to-business relationships. It incorporates internal and external processes for which the outcomes, namely, satisfaction, commitment and long term relationships, are spelled out by her.

The internal focus entails setting the marketing goals and strategy, analysing their culture, and establishing congruence between the strategy and culture (Cann: 1998: 295). If necessary, a customer oriented culture should be developed. Incongruence between relationship marketing value strategy and the culture of the firm can lead to unachieved goals and objectives. Also, if necessary, the culture should be developed internally, externally and interactively and be marketing oriented. Relationship marketing between employees and stakeholders forms an important internal part of the strategy. Marketing to customers forms part of external marketing and interactive marketing results when keeping promises is tested every time there is an interaction between the supplier and customer (Cann, 1998: 398).

The external focus approach to the marketing strategy entails implementing the strategy, bonding socially with the customer, and adding more value to the customer. Once the strategy and culture are aligned, the supplier will be ready to implement the marketing strategy and, according to Cann (1998: 398), the first step between the supplier and customer is to close the sale and develop a long lasting mutually beneficial relationship. The bonding process with the customer follows, which is described by Cann (1998: 399) as a dynamic process that is steadily progressive. The termination costs now restrict easy dissolution of the bond.

With these steps in place the relationship marketing value strategy should lead to customer satisfaction (Figure 4.3) resulting in long-lasting relationship value (Cann, 1998: 402).

Swarmidass, et al., (2001) also introduce a five step strategy to implement a relationship marketing strategy which will be briefly discussed below.

4.4.4 RELATIONSHIP STRATEGY IMPLEMENTATION – SWARMIDASS, ET AL., (2001)

Swamidass, et al., (2001: 936) also present a five step relationship marketing strategy implementation process for the manufacturing industry. Similar to Cann (1998), Swarmidass, et al., (2001) also state explicitly that the manufacturing and marketing strategies should be congruent. The competitive manufacturing requirements include technological sophistication and product features, flexibility to modify design to suit customers, price, lead-time, delivery performance, flexibility in modifying delivery volumes, and quality conformance or perceived quality (Swarmidass, et al., 2001: 938).

The five step marketing strategy process according to Swarmidass, et al., (2001: 938) is depicted in Table 4.5 below.

Table 4.5: Marketing Strategy Approach in the Manufacturing Environment (Adapted from Swarmidass, et al., 2001: 938)

Step	Stage	Description
Step 1	Identifying product groups	The company's products are divided into groups. Products within a group share a similar market or competitive environment
Step 2	What are the objectives of our business and functions?	This stage generates a set of manufacturing objectives that are rooted in the business strategy.
Step 3	What is our current strategy?	Identify current strategy; use a strategy content charting tool if necessary.
Step 4	Can current strategy achieve our business process?	This stage identifies literature contributions in current and planned strategic actions. It can assess the fit between company strategy and manufacturing capabilities.
Step 5	Navigating towards our business objectives	This stage is the actual strategy formulation process

When the model compiled by Swarmidass, et al., (2001: 938) is applied to the South African automotive component industry, automotive component suppliers need to identify their product segment (step 1 in Table 4.5), for

example, the tyre or catalytic convertor industry, and subsequently set their objectives in terms of business functions (step 2 in Table 4.5) such as their position in relation to the local and international competition. The current relationship marketing value strategy (step 3 in Table 4.5) should be analysed and they should determine whether the business goals should be achieved in terms of profitability (step 4 in Table 4.5). An actual strategy formulation phase should follow where a proper relationship marketing value strategy will be planned and implemented (step 5 in Table 4.5).

Strategic approaches for the implementation or relationship marketing value might differ slightly; however, more important is the fact that suppliers in the South African automotive supply chain should choose an applicable implementation strategy that is the best fit for relationship marketing value objectives. While a few industry options are available, it is important to make sure that the strategy is successfully implemented in order to achieve goals and retain business.

Relationship marketing strategies resulting in value might differ from each other but the importance resides in the fact that a company should adopt a strategy to reach its goals and adapt to market demands (Anshoff, 1980: 131). According to Hutt and Speh (2004: 7), a business strategy must be based on an assessment of the company, the competitor, and the customer, and should not only focus on the "*implementation*" but also the "*execution*" of strategies (Prahalad, 1994: 5).

Automotive component suppliers in the South African supply chain should focus on a strategy that best fits their needs in order to achieve the maximum relationship marketing value with their customers.

4.5 RESEARCH APPROACH

This research is exploratory by nature in order to determine the antecedents and mediators of relationship value (as part of relationship marketing) in the South African automotive supply chain. These constructs will be simulated through a Structural Equation Model (SEM) which depicts the antecedents and mediator value drivers in relationship value.

Relationship value constructs identified from extensive literature (see Table 4.6) will be incorporated in the proposed SEM. The SEM will incorporate relationship value antecedents, which will be divided into the core offering, sourcing process and customer operations. Sub divisions of each of the constructs will also be initiated (as per Table 4.6).

Mediators such as trust and commitment (see Table 4.6) and their correlation with relationship value (as a result of relationship marketing) will also be determined. Finally, the economic benefit effect of relationship value such as retention (Lindgreen, et al., 2000; 295, Ulaga & Eggert, 2004: 311; Ang & Buttle, 2006: 85) will be investigated. Unique South African constructs such as the MIDP and BBBEE will be included in the research.

And finally, the correlation between relationship value and business retention will be determined in the South African automotive industry.

Table 4.6: Literature Review Framework (Author)

Relationship Marketin Literature						
	Value Dimension	**Antecedents (Benefits)**	**Antecedents (Sub Divisions)**	**Mediators**	**Relationships Create Value**	**Outcomes of Relationship Value**
Relationship Value Benefits	**Core Offering** (Cannon & Homburg, 2001; Bruhn & Frommeyer, 2004; Spiteri & Dion, 2004; Eggert, et al., 2006; Baxter, 2009)	**Product Quality** (Dwyer, et al., 1987; Mudambi, McDovwell & Mudambi, 1995; Van der Haar, Kemp & Omata, 2001; Walter, Ritter & Gemunden, 2001; Ulaga, 2003; Ulaga & Eggert, 2003; Spiteri & Dion, 2004; Ulaga & Eggert, 2005; Hunt, et al., 2006; Eggert, et al., 2006; Damkuvienė & Virvilaitè, 2007; Baxter, 2009)	**Product Performance** (Eggert, et al., 2006)	**Trust** (Morgan & Hunt, 1994; Palmer & Bejou, 1994; Mudambi, McDovwell & Mudambi, 1995; Gummerson, 1997; Hocutt, 1998; Sharma, et al., 1999; Garbarino & Johnson, 1999; Fontenot & Wilson, 1999; Lapierre, 2000; Yau, et al., 2000; Wong & Sohal, 2002; Hunt, et al., 2003; Spiteri & Dion, 2004; Gounaris, 2005; Palmatier, et al., 2005; Hunt, et al., 2006; Damkuvienė & Virvilaitè, 2007; Watkins & Hill, 2008; Hald, Cordón & Vollmann, 2008; Palmatier, 2008) **Commitment** (Dwyer, et al., 1987; Andersson & Weitz, 1992; Morgan & Hunt, 1994; Wilson,	**Value Creation** (Jüttner & Werli, 1994; Gummerson, 1994; Wilson, 1995; Mudambi, McDovwell & Mudambi, 1995; Flint, et al., 1997; Grönroos, 1997; Cleland & Bruno, 1997; Laitamäki & Kordupleski, 1997; Walters & Lancaster, 1999; Walter, Ritter & Gemunden, 2001; Payne and Holt, 2001; Ulaga, 2001; Weinstein, 2002; Grönroos, 2004; Spiteri & Dion, 2004; Anderson, Narus & Van Rossum, 2006; Watkins &	**Economic Benefits and Retention** (Palmer & Bejou, 1994; Mudambi, McDovwell & Mudambi, 1995; Laitamäki & Kordupleski, 1997; Sharma, et al., 1999; Walters & Lancaster, 1999; Lindgreenet, et al., 2000; Yau, et al., 2000; Walter, Ritter & Gemunden, 2001; Ulaga, 2001; Van der Haar, Kemp & Omata, 2001; Hunt & Derozier, 2004; Ulaga & Eggert, 2004; Spiteri & Dion, 2004; Ang & Buttle, 2006; Damkuvienė & Virvilaitè, 2007; Watkins & Hill, 2008)
			Product Reliability (Eggert, et al., 2006)			
			Product Consistency (Eggert, et al., 2006)			
		Delivery Performance (Ulaga, 2003; Spiteri & Dion, 2004; Ulaga & Eggert, 2005; Eggert, et al., 2006; Baxter, 2009)	**On-time Delivery** (Eggert, et al., 2006)			
			Delivery Flexibility (Lapierre, 2000; Eggert, et al., 2006)			
			Delivery Accuracy of Delivery (Eggert, et al., 2006)			
	Sourcing Process	**Service Support**	**Product Related Services** (Eggert, et al., 2006)			

	(Cannon & Homburg, 2001; Spiteri & Dion, 2004; Eggert et al., 2006; Baxter, 2009)	(Flint, et al., 1997; Walters & Lancaster, 1999; Ulaga, 2003; Ulaga & Eggert, 2005; Baxter, 2009)	**Customer Information** (Eggert, et al., 2006)	1995; Mudambi, McDovwell & Mudambi, 1995; Gummerson, 1997; Ganesan & Hess, 1997; Hocutt, 1998; Garbarion & Johnson, 1999; Wong & Sohal, 2002; Hunt, et al., 2003; Spiteri & Dion, 2004; Gounaris, 2005; Palmatier, et al., 2005; Hunt, et al., 2006; Damkuvienè & Virvilaitè, 2007; Watkins & Hill, 2008; Palmatier, 2008)	Hill, 2008; Hald, Cordón & Vollmann, 2008; Palmateier, 2008; Baxter, 2009)	
			Outsourcing of Activities (Eggert, et al., 2006)			
		Personal Interaction (Ulaga, 2003; Grönroos, 1997; Flint, et al., 1997; Ulaga & Eggert, 2003; Grönroos, 2004; Palmatier, et al., 2005; Ulaga & Eggert, 2005; Baxter, 2009)	**Communication** (Dwyer, et al., 1987; Morgan & Hunt 1994; Grönroos, 1997; Grönroos, 2004; Palmatier, et al., 2005; Eggert, et al., 2006)			
			Problem Solving (Palmatier & Bejou, 1994; Eggert, et al., 2006)			
			Mutual Goals (Wilson, 1995; Sharma, et al., 1999; Eggert, et al., 2006)			
	Customer Operations (Cannon & Homburg,	**Customer Know-How** (Ulaga, 2003; Ulaga & Eggert, 2003; Spiteri & Dion, 2004; Palmatier, et al., 2005; Ulaga & Eggert, 2005; Baxter, 2009)	**Knowledge of supply market** (Eggert, et al., 2006)			
			Improvement of existing products (Eggert, et al., 2006)			

	2001; Eggert ,et al., 2006)		**Development of new products** (Eggert, et al., 2006)			
		Time-to-Market (Ulaga, 2003; Ulaga & Eggert, 2003; Grönroos, 2004; Ulaga & Eggert, 2005; Eggert, et al., 2006; Baxter, 2009)	**Design tasks** (Eggert, et al., 2006)			
			Prototype development (Eggert, et al., 2006)			
			Product testing and validation (Eggert, et al., 2006)			

The theoretical model in Figure 4.4 as compiled from the literature review framework (Table 4.6) demonstrates the possible outcome of the Structural Equation Model (SEM) as certain Relationship Value constructs identified by Ulaga and Eggert (2005) as well as Eggert, et al., (2006) are combined with the KMV model of Morgan and Hunt (1994).

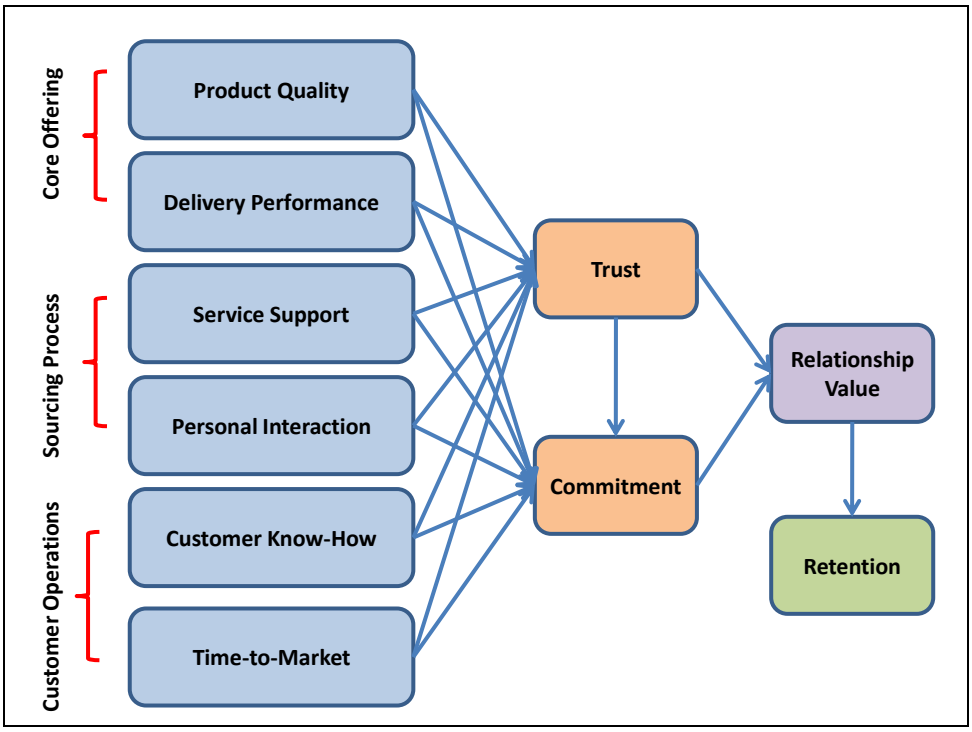


Figure 4.4 Literature Model (Author)

Ulaga and Eggert (2005) maintain that product quality, delivery performance, service support, personal interaction, customer know-how and time-to market are viewed as relationship value antecedents. Further to this, Eggert, et al., (2006) believe that these six antecedents are divided into three categories, namely, core offering, sourcing process and customer operations. Trust and commitment (Morgan & Hunt, 1994) are viewed as relationship value mediators leading towards relationship value. Literature also strongly suggests that trust influences commitment (Morgan & Hunt, 1994). Finally, various authors have asserted that relationship value leads to business retention (Lindgreen, et al., 2000; 295, Ulaga & Eggert, 2004: 311; Ang & Buttle, 2006: 85).

During an extensive literature review exercise it was determined that more contributions should be made to literature relating to relationship value models, including the

identification of their antecedents and mediators, which are elaborated in the section below.

4.6 CONTRIBUTION OF THIS STUDY

Various required literature contributions were identified regarding relationship marketing value theory, frameworks and models relating to this topic. The contributions are discussed and summarised in Table 4.7 in terms of the relationship marketing value model (Ulaga & Eggert, 2005; Eggert, et al., 2006), relationship marketing value mediating constructs (Morgan & Hunt, 1994), and relationship marketing value theory in general.

4.6.1 MODEL: ULAGA AND EGGERT (2005) AND EGGERT, ULAGA AND SCHULTZ (2006)

A relationship value model was first presented by Ulaga and Eggert (2005), which was later expanded by Eggert, et al., (2006). However, certain shortcomings regarding the model were identified, which include:

- According to literature, relationship value studies and the models thereof need further investigation. Therefore, business relationships and the value thereof remain an under-researched topic (Ulaga & Chacour, 2001: 526; Eggert, et al., 2005: 20) and it is explicitly stated by Ulaga and Eggert (2006: 120) that "*a sound understanding of the dimensions that drive value creation in manufacturer-supplier relationships is needed*". The studies also mainly focused on the physical product, neglecting relational dimensions of the underlying function of value (Anderson, et al., 2001; Ulaga & Eggert, 2005:91) in the B2B market.

- Furthermore, with regard to the model by Ulaga and Eggert (2005), it was stated that the sample of purchasing professionals selected from an association of purchasing managers is not representative of the population of manufacturing companies (Ulaga & Eggert, 2005: 89). Therefore, the dimensions pertaining to specific business markets have not been addressed by the research (Ulaga & Eggert 2005: 90). It was proposed by the authors that the study be expanded to specific manufacturing industries and tested as to whether the core dimensions of

relationship marketing value are common to different industries. Literature also indicates that the model of Ulaga (2005) has not been tested in different countries (Ulaga & Eggert, 2005, 89). The current researcher envisages that she will design and test the SEM in the South African automotive market.

- In the study conducted by Ulaga and Eggert (2005: 91), the concept was not investigated within the larger nomological network of key relationship variables. Although information on a number of control variables was collected, such as the nature and age of the relationship or the type of product considered, the current sample size did not allow for the comparison of sub-samples (Ulaga & Eggert, 2005: 89). Thus, it would be interesting to assess relationship value across a number of relationship characteristics, such as the age and type of relationship. (Ulaga & Eggert, 2005:91). The current research envisages identifying relationship value as a core building block thereof and to suggest ways of how to measure the construct and its dimensions. As mentioned earlier this study will also very specifically focus on the relationship between the Tier 1 (customer) and Tier 2 (supplier) automotive component supplier in the South African automotive supply chain.

The constructs presented by Ulaga and Eggert (2005) and Eggert, Ulaga and Schultz (2006) will be incorporated in this research for which the constructs are depicted in the literature model in Figure 4.4

.

Furthermore, constructs such as mediating constructs such as commitment and trust (Morgan & Hunt 1994) will also be addressed in the study; these will be discussed in the next section.

4.6.2 MODEL: MORGAN AND HUNT (1994)

The popular KMV research carried out by Morgan and Hunt (1994) was cited 6625 (by 1 June 2011) times on the internet and has been proven to be popular; however, various authors state that this model could be expanded. Ulaga and Eggert (2005: 91) suggest

that it would be interesting to integrate their model with Morgan and Hunt's (1994) KMV model of relationship marketing.

Also, mediator variables such as trust, commitment, and satisfaction, have not been fully modelled or empirically tested and would also present fruitful areas for future research (Spiteri & Dion, 2004: 685). This should also determine how it affects marketing exchange relationships (Gounaris, 2005: 126).

In the KMV model, Morgan & Hunt (1994) assert that trust strongly influences commitment, which is also confirmed by Hunt, et al., (2006: 75). This research will determine if this statement proves true in the South African automotive market. The proposed literature model in Figure 4.4 indicates that trust, commitment and retention should be included which will be researched in this study.

4.6.3 RELATIONSHIP MARKETING FRAMEWORKS IN GENERAL

Relationship marketing and the value thereof, in the B2B environment is not fully exploited (Watkins & Hill, 2008: 1; Doherty & Alexander, 2004). Consequently, this needs further attention. Ulaga and Eggert (2002: 15) as well as Spiteri and Dion (2004: 675) indicate that more research is needed on relationship marketing value antecedents and mediators as well as conclusiveness regarding their respective roles (Palmatier, et al., 2006: 136).

While authors such as Fontenot and Wilson (1999:10) maintain that no single framework or model captures all elements relevant to relationship marketing, Parvatiyar and Sheth (1997: 249) suggest that future research should determine performance measures of relationship marketing value (Payne & Holt, 2001: 177).

Finally, very limited research exists regarding relationship marketing value in the South African context, and more specifically, pertaining to the South African automotive supply chain.

The literature contributions listed above are summarised in Table 4.7.

Table 4.7: Literature contribution matrix (Author)

Literature Contributions	Ulaga and Eggert (2005) Eggert, et al., (2006)	Morgan and Hunt 1994	General Relationship marketing theory
Limited research sample in terms of countries, purchasing professionals, industries, demographical sub samples	(Ulaga & Eggert, 2005:89 - 90) (Morgan & Hunt, 1994:34)		
Integration of KMV in RM models		(Ulaga & Eggert 2005: 91)	
Mediators such as trust and commitment have not yet been fully modelled		(Spiteri & Dion, 2004: 685)	
Limited research on trust and commitment in terms of exchange theory		(Gounaris, 2005: 126)	
More research required on measurement, performance, effectiveness of relationships			(Parvatiyar & Sheth, 1997: 249) (Payne & Holt, 2001: 177)
Relationship Marketing in the B2B market not fully exploited. Further research required.			(Watkins & Hill, 2008: 1) (Doherty & Alexander, 2004)
More research on mediators and antecedents of relationship marketing value	(Ulaga & Eggert, 2002:15)		(Spiteri & Dion, 2004: 675)

More research is required on value measurement			**(Payne & Holt, 2001: 177)**
No single model captures all elements in relation to relationship management			**(Fontenot & Wilson, 1999: 10)**
No consensus of the role of commitment and trust in relationship marketing models			**(Palmatier, et al., 2006: 136)**
No relationship marketing model addressing the B2B and specifically the automotive supply chain			**Tolmay (2004)** **(Patterson & Spreng, 1997: 414)**

Further to the above, research on relationship marketing and the value thereof in the South African context and specifically the South African Automotive industry is limited. The majority of research undertaken in the South African automotive industry (Lamprecht, 2006; Kaggwa, 2008; Black, 1998, 2001; Barnes, 1994, 1999, 2000; Moodley, et al., 2001), focus mainly on the production side of the supply chain such as competitiveness, quality control and benchmarking. Barnes (2000a: 38) states that the South African automotive industry is currently still performing poorly in certain areas and should focus on key performance criteria in order to improve competitiveness.

Relationship marketing research (Lazarus, 1997; Van der Wath, 1998; Vakis 1998; Brunyee, 1996) in the B2B market is more applicable to consumer or commodity markets.

4.7 CONCLUSION

It is very seldom the case that manufacturers engage in proactive marketing while reactive marketing may be detrimental to business (Swamidass, Baines & Darlow, 2001: 933). This scenario can also be observed in the South African automotive supply chain.

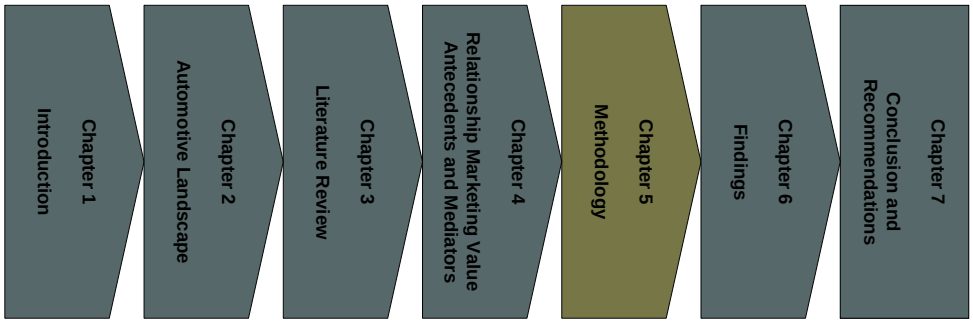
According to Spiteri and Dion (2004: 675), a contribution should be made to literature to design a relationship marketing value model for the manufacturing industry that combines antecedents with mediators.

Models depicting antecedents from Ulaga (2003), Ulaga and Eggert (2005) and Eggert, et al., (2006) present various antecedents divided into three constructs, namely, core offerings, sourcing process and customer operations. Grönroos (1997, 2004) maintains that the two major antecedents of relationship marketing are; interaction and communication, while Palmatier, et al., (2006) assert that relationship antecedents are divided into dyadic antecedents (communication, similarity, relationship duration, interaction and conflict), seller focal antecedents (relationship investment and seller expertise) and customer focal (relationship benefits and dependence on seller) antecedents. Hunt, et al., (2006) aver that relational antecedents comprise trust, commitment, cooperation, keeping promises, shared values and communication, while Sharma, et al., (1999) believe that relational antecedents include customer orientation, trust, pro-active behaviours, positive attitude and common goals.

Further to this, trust and commitment are identified by various authors as being very important mediators for relationship marketing value creation. Morgan and Hunt (1994) present the KMV theory where they believe that relational mediators are commitment and trust which lead to successful business retention. However, similar to antecedents, consensus between authors fails to prove the definite role of trust and commitment in relationship marketing models (Palmatier, et al., 2006: 136).

This study envisages identifying the relationship value antecedents and mediators required by Tier 1 suppliers (buyers) for Tier 2 South African automotive component suppliers. The following chapter (on methodology) will describe the process followed to design a relationship marketing value model for the South African automotive supply chain.

CHAPTER 5 - RESEARCH METHODOLOGY



5.1 INTRODUCTION

During the literature review stage of this study on relationship value models and frameworks, certain areas that have not yet been fully explored, were identified. Relationship value which is a sub section of relationship marketing is a fairly new concept which originated largely during the 1990s, and various authors state that this subject is not fully explored yet (Watkins & Hill, 2008: 1; Doherty & Alexander, 2004). It is further evident that research relating to models calculating the value of such marketing are also limited (Ulaga & Eggert, 2005: 73). Given the importance of value (Li, 2010: 313) in relationship marketing, it comes as a surprise that value does not enjoy a more prominent position in the establishment of relationship value models (Morgan & Hunt, 1994; Ulaga & Eggert, 2005: 74).

The literature reviewed did not provide clarity on which relationship value constructs can be viewed as antecedents and which as mediators (Spiteri & Dion, 2004: 177).

Various authors have touched on the subject of relationship value mediators such as trust and commitment; the most prominent mediating model reviewed was that presented by Morgan and Hunt (1994). However, consensus on the role of constructs (antecedents or

mediators) is inconclusive (Palmatier, et al., 2006, 1999: 10). Therefore, researchers differ on this topic.

This research is an exploratory approach for assessing and modifying theoretical models and further development to theory relating to relationship value which is treated as a sub section of relationship marketing.

5.2 RESEARCH SCOPE

The research scope will summarise the focus of this study. The research methodology is determined by the research construct and objectives, and this section will shed more light on the basis for the research.

As relationship marketing results in relationship value (Li, 2010: 313), a SEM could illustrate the causal relationship among variables (Cooper & Schindler, 2001: 586) such as those mentioned.

5.2.1 THE PRIMARY RESEARCH OBJECTIVE

This research aims to determine which relationship value constructs can be classified as antecedents and which as mediators. In addition, it is intended to determine the relationship between relationship value and retention. Value, according to Lindgreen and Wynstra (2005: 733), is an increasingly relevant concept not only in the marketing context, but also from the perspective of purchasing and supply management. More relationship marketing research is also required in the B2B arena (Patterson & Spreng, 1997: 414) and this research will specifically focus on the B2B automotive supply chain in South Africa.

This chapter will explain the research methodology in terms of research instruments, and finally the collection and analysis of data. The outcome of the research is to design a SEM for Relationship Value creation in the South African automotive supply chain.

The primary objective of the research is to*: "develop a relationship value model for the South African automotive B2B supply chain".*

The major constructs to be addressed in the study are: relationship value antecedents, relationship value mediators and their relationship value.

5.2.2 SECONDARY RESEARCH OBJECTIVES

The secondary research objectives of this study are:

- Objective 1: Determine RVM (relationship value model) constructs in the relationship between Tier 1 and Tier 2 suppliers.
- Objective 2: Determine how trust and commitment relate to relationship value.
- Objective 3: Determine the antecedents for the perception of relationship value by Tier 1 suppliers.
- Objective 4: Determine the relationship between relationship value and business retention.

5.2.3 SIGNIFICANCE OF THE RESEARCH

The areas that have not yet been fully identified in literature relating to relationship value are summarised in Table 4.7 in chapter 4. This research envisages filling in the research areas that have not yet been fully identified in the literature by various authors such as:

- Limited research on relationship marketing value (Doherty & Alexander, 2004; Watkins & Hill, 2008: 1).
- Limited research on relationship marketing models (Palmatier, et al., 2006: 136).
- Limited research on the measurement of relationship marketing value (Payne & Holt, 2001: 177).

- Limited research on relationship marketing value in the B2B automotive industry, specifically the South African automotive supply chain (most research such as Eggert, et al., 2006 focused on multi sector organisations).
- Unique South African constructs such as the MIDP and BBBEE will also be incorporated in the SEM.

Hence, the most significant contribution of the research will be to fill in the areas that have not yet been fully identified; the research approach that was applied is discussed in the next section.

5.3 RESEARCH APPROACH

The study followed a quantitative exploratory study approach, the purpose being to account for the forces that caused a certain phenomenon to occur (Cooper & Schindler, 2001: 13) such as the variables mentioned.

The process was intended to obtain data via an email exercise where questionnaires were forwarded to all senior managers in the South African automotive industry who were listed as members of NAACAM (National Association Automobile Component and Allied Manufacturers of South Africa). . Refer to annexure F for a complete list of them.

The research utilised questionnaires with structured questions that provided the respondents with a fixed set of choices also called closed questions (Cooper & Schindler, 2001: 334), obtained mainly from the research of Eggert, et al., (2006) as well as Morgan and Hunt (1994). However, in preparation for the research, a questionnaire validation process was introduced where qualitative questions were posed to certain industry experts in order to ensure that all valid information related to the South African automotive industry was included. This exploratory research approach aimed to clarify concepts, to improve the final research approach (Cooper & Schindler, 2001: 139) and thereby to validate issues prevalent in the South African automotive industry. Refer to the questionnaire in Annexure E.

Questionnaires were emailed to respondents after which non-respondents were phoned and telephonic interviews conducted.

5.4 METHODOLOGY

The methodology will focus largely on research instruments, data and analysis (Hofstee, 2006: 112); the exploratory research undertaken will be an interrogation/communication study in order to collect responses by means of personal or impersonal means (Cooper & Schindler, 2001: 135).

This research will specifically apply statistical modelling which will be explained in more detail next.

5.4.1 STATISTICAL MODELLING

Two processes will be applied, namely exploratory factor analysis (EFA) and structural equation modelling (SEM).

5.4.1.1 Factor analysis

Although Factor Analysis is not a statistical model, it is a method utilised to extract factors to be simulated. Factor Analysis is a research technique particularly suitable for analysis of the patterns of complex, multi dimensional relationships (correlations) encountered by researchers (Hair, Black, Babin, Anderson & Tatham, 2006: 101; Also see Hair, Black, Babin & Anderson, 2010) among a large number of variables by defining sets of variables that are highly interrelated, known as factors (Hair, et al., 2006: 104; Also see Hair et al., 2010).

The use of Factor Analysis increased dramatically in all fields of business related research (Hair, et al., 2006: 101; Also see Hair et al., 2010); hence, its utilisation for this research. It is important to note that the critical assumptions underlying it are more conceptual than

statistical (Hair, et al., 2006: 113; Also see Hair et al., 2010) and are therefore widely applied in social science studies.

Factor Analysis can serve either a confirmatory or an exploratory purpose (Hair, et al., 2006: 104; Also see Hair et al., 2010): the latter was the case during this research with the view to expand existing literature. It is important to determine the format of the constructs identified during the literature review on the South African automotive industry.

The departure point of Factor Analysis is the problem statement, followed by the summary of information (from a number of variables reduced into a smaller set of variables) with the minimum loss of information, to determine the fundamental constructs assumed to underlie the original variables (Hair, et al., 2006: 107; Also see Hair et al., 2010).

The steps for designing Factor Analysis according to Hair, et al., (2006: 111; Also see Hair et al., 2010) are: firstly the calculation of input data through a correlation matrix in order to meet the specified objectives of grouping the variables. Secondly, this is followed by the design of the study in terms of the number of variables, their measurement properties, and the types of allowable variables exhibiting; and thirdly, a large enough sample size, both in terms and as a function of the number of variables in the analysis. It is necessary to note that the researcher should minimise the number of variables but maintain a reasonable number of variables per factor (Hair, et al., 2006: 112; Also see Hair et al., 2010). Lastly, the overall fit should be determined and the factors should be interpreted.

In line with Hair, et al., (2006: 113; Also see Hair et al., 2010) the sample for this research was homogeneous in nature where the managers of Tier 1 suppliers in the South African automotive industry were interviewed.

Factor Analysis confirms validity since concepts which derived from theory are tested against reality (Hair, et al., 2006: 104; Also see Hair et al., 2010) to determine if the latter supports them. All concepts identified for the purpose of this study were explicitly motivated by literature on relationship value as well as on the South African automotive industry.

The reliability of the research findings was measured through the widely used Cronbach's Alpha Coefficient, a statistical tool commonly used to measure the reliability of a sample. This is a diagnostic measure in order to test the consistency of findings (Hair, et al., 2006: 137; Also see Hair et al., 2010). According to Hair, et al., (2006: 137; Also see Hair et al., 2010), the generally agreed upon lower limit for Cronbach's alpha is .70, although it may decrease to .60 in exploratory research.

With regard to the research it is only fair to mention the three most frequently cited limitations regarding Factor Analysis: no consensus regarding the techniques to be utilised for EFA as various techniques exist, the subjective aspects of Factor Analysis are subject to many different opinions, and the reliability of such analysis applied to ordinal data is questioned by various authors (Hair, et al., 2006: 164; Also see Hair et al., 2010).

Finally, it is important to note that Factor Analysis plays a unique role in the application of other multivariate techniques such as SEM (Hair, et al., 2006: 104; Also see Hair et al., 2010) which will be discussed in the next section.

5.4.1.2 Structural equation modelling

Following Factor Analysis, SEM was used for the stated purposes.

It is widely employed in social science studies, one reason being that it provides an exploratory method for assessing and modifying theoretical models and furthering development of theory (Dilalla, 2000: 439; Anderson & Gerbing, 1998: 411; Cheng 2001: 650).

According to Hair, et al., (2006: 711; Also see Hair et al., 2010), SEM is: "*a family of statistical models that seek to explain the relationships among multiple variables".* The multiple variables were identified during the literature review (Hair, et al., 2006: 714; Also see Hair et al., 2010) while the SEM enables the measurement of how variables come

together to represent constructs as well as the depiction of a model of how constructs are associated with each other (Hair, et al., 2006: 714; Dilalla 2000: 439).

Path analysis results in a path diagram which illustrates the causal effects between various variables via arrows (Cheng, 2001 651; Stage, Carter & Nora, 2004: 5). With a single headed arrow, cause to effect is indicated, whereas with a double-headed arrow, no causal relations are assumed (Stage, et al., 2004: 5). The SEM reveals exogenous constructs, endogenous constructs and the correlation between constructs. It should be noted that independent (X) variables are called exogenous while dependent (Y) variables are termed endogenous (Stage, et al., 2004: 5).

Hair, et al., (2006: 711; Also see Hair et al., 2010) summarise the characteristics of SEM as being to determine the interrelated multiple dependence relationships between constructs, the ability to represent unobserved or latent constructs (Cheng, 2001: 654) in these relationships, and finally to define a model to explain the entire set of relationships. With this in mind, the proposed model was intended to depict the antecedents and mediators of Relationship Value in the South African automotive industry. The constructs applied in this research were all identified through solid theoretical foundations.

One of the primary objectives of multivariate techniques is to expand the researcher's exploratory (or confirmatory) research (Hair, et al., 2006: 705; Anderson & Gerbing, 1998: 411). As with Factor Analysis, SEM should never be attempted without a strong theoretical basis for specification of both the measurement and structural models (Hair, et al., 2006: 720; Also see Hair et al., 2010).

According to the above, the path analysis offers various advantages, such as to gain understanding and insight into important issues; however, it should be noted that such analysis according to Stage, et al., (2004, 6 - 7) poses a few shortcomings as well. Firstly, analysis of this type can be used to validate a correlation relationship (Dilalla, 2000: 439), but it cannot absolutely establish the direction. This is provided by the researcher on the basis of the theory. Secondly, the path analysis is applied to test only a small number of hypotheses. Thirdly, path analysis cannot be used where feedback loops are included in

the hypotheses and, fourthly, a steady causal progression must be present across the path diagram.

The functions of SEM have been found to be the most effective of all multivariate techniques including multiple regression, path analysis, and factor analysis (Cheng, 2001: 650).

According to Hair, et al., (2006: 112; Also see Hair et al., 2010), the size of a sample for factor analysis should not be less than 50 and preferably more than 100. The assumption is to have at least 5 times as many observations as the number of variables to be analysed. As a rule of thumb, the lower the significance level, the higher the number of respondents (Hair, et al., 2006: 112; Also see Hair et al., 2010). However, MacCallum and Austin (2000: 215) state that 18% of all structural equation model research studies used samples with fewer than 100 individuals.

In order to ensure validity during the SEM process, the *"goodness-of-fit"* indicate how well the specified model reproduces the covariance matrix among the indicator items (Hair, et al., 2006: 745; Also see Hair et al., 2010). Although it was intended that the best model from the goodness of fit would be presented, it is also advisable to undertake comparisons on the baseline model with other competing models (Hair, et al., 2006: 756; Also see Hair et al., 2010). With this in mind, the primary objective was to ensure that the proposed model not only has an acceptable model fit, but that it performs better than some alternative model.

SEM is a relatively new analytical tool, invented during the first half of the twentieth century. It originated largely with the purpose of establishing causal relationships between variables for economics researchers and is a tool to combine Factor Analysis and multiple regression approaches in one procedure (Hair, et al., 2006: 724; Also see Hair et al., 2010). SEM is the only multivariate technique that allows the simultaneous estimation of multiple equations (Hair, et al., 2006: 718; Also see Hair et al., 2010). The development of computer software accelerated the critical advances of SEM (Hair, et al., 2006: 724; Cheng, 2001: 651).

The various steps to reach the SEM will be discussed in the next section.

5.4.2 DATA ANALYSIS APPROACH

The steps followed (as per Figure 5.1) in order to analyse the data: step 1 – review proposed academic model; step 2 – determine suitability of data for EFA; step 3 – communalities between items; step 4 – total variance; step 5 – rotated axis factoring; and step 6 – derive the SEM.

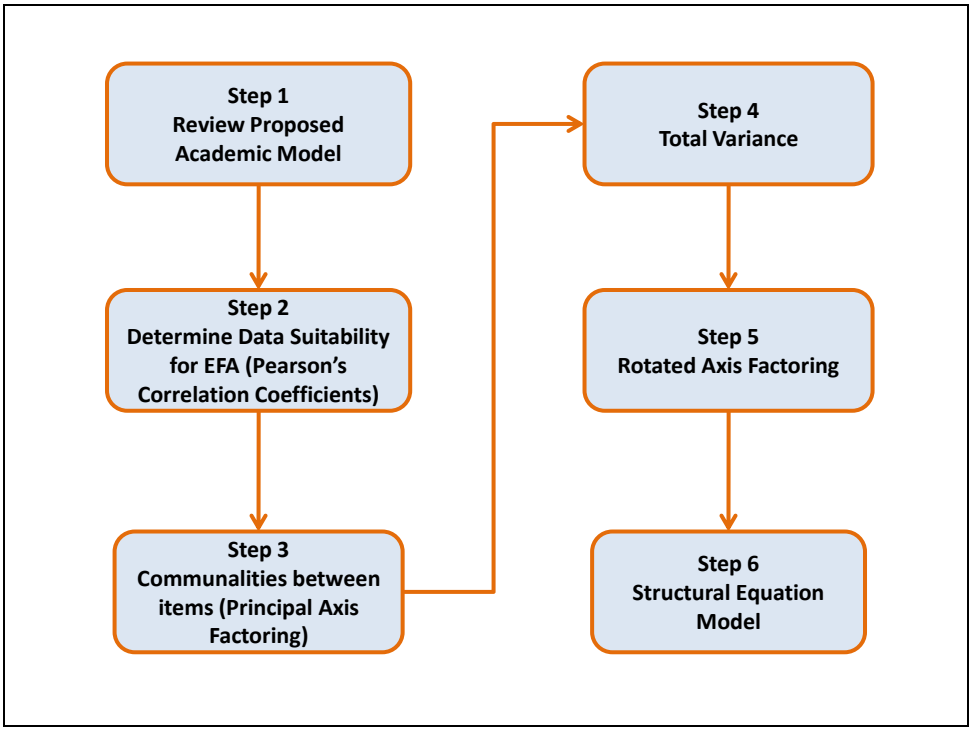


Figure 5.1: Data Analysis Approach (Author)

The data analysis approach incorporated the following steps (depicted Figure 5.1):

5.4.2.1 Step 1- Review proposed literature model

This process entails ordering and summarising the applicable data by means of tabulation and graphic representation and the calculation of descriptive measures. According to Dilalla (2000, 440) and Hair, et al., (2006: 714; Also see Hair et al., 2010) these raw constructs are of theoretical interest and are identified during the literature review stage.

As mentioned, the aim of the research was to identify relationship value antecedents as well as possible mediating factors in the South African automotive supply chain. Furthermore, it was to determine whether relationship value results in business retention. The proposed model (see Figure 5.2) was tested in order to identify the applicable antecedents and mediators that would eventually result in relationship value and possibly business retention.

In the model, core offering constructs (product quality and delivery performance), sourcing process constructs (service support and personal interaction), and customer operation constructs (know-how and time-to-market) were indicated as relationship value antecedents. Trust and commitment were indicated as relationship value mediators with trust relating to commitment. Both trust and commitment constructs relate to relationship value. It was further indicated that relationship value relates to retention. However, it might also be the case that trust and commitment can be seen as relationship value antecedents as stated by Hunt, et al., (2006: 78) in chapter 4 Table 4.2.

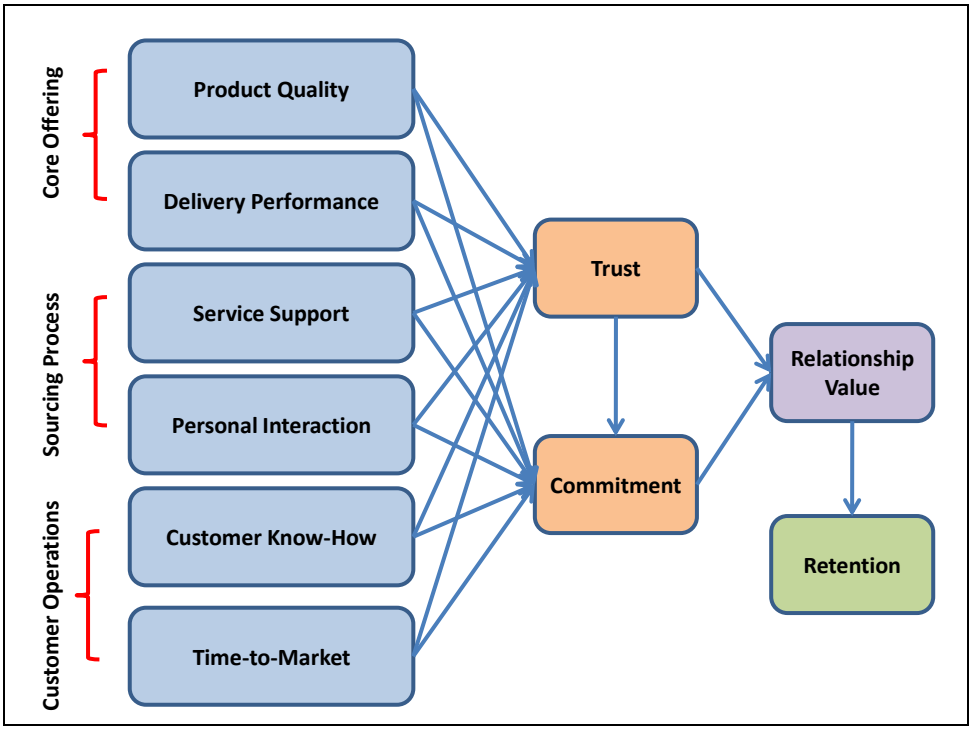


Figure 5.2: Theoretical Relationship Value Model (Author)

As part of the research approach, the suitability of data for EFA will be discussed in the next step.

5.4.2.2 Step 2 – Determine data suitability for EFA

The suitability of the data for factor analysis was assessed before the process of Principal Axis Factoring (PAF) is undertaken. The relationships among the variables were determined, as measured on a 7-point Likert-type scale, to rate the extent to which they agreed with statements regarding service delivery from Supplier A. This was investigated using the Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure that there were no violations of the assumptions of normality, linearity and homoscedasticy. The coefficients of the correlation matrix have to reveal the presence of coefficients of 0.3 and above. Additionally, the Kaiser-Meyer-Olkin and the Bartlett's Test of Sphericity (Bartlett, 1954) need to reach statistical significance of $p<.001$ in order to support the factorability of the correlation matrix.

5.4.2.3 Step 3 – Communalities between items

Once significant loadings were identified, the amount of variance was examined in order to determine if the variables met acceptable levels of explanation. The patterns of correlations measured the extent to which respondents agreed with statements made regarding various aspects of the service delivery that they receive from their most reliable supplier (Supplier A). The set of items was thereafter subjected to PAF using SPSS18.0 software to extract communalities. It is recommended by Hair, et al., (2006: 131; Also see Hair et al., 2010) that loadings should at least exceed 0.5 to have a significant explanation.

The next step was to determine total variance which will be discussed in more detail.

5.4.2.4 Step 4 – Total variance

After the communalities between items were identified, the scree test, through eigenvalues, was used to identify the optimum number of extracted factors before the

amount of unique variance begins to dominate the common variance structure (Hair, et al., 2006, 120; Also see Hair et al., 2010).

The Cattell (1966) scree test was utilised to identify factors with eigenvalues close to 1.

In the next step the rotated axis factoring process will be discussed.

5.4.2.5 Step 5 – Rotated axis factoring

In order to aid the interpretation and scientific utility of components, the Varimax rotation was performed. Orthogonal rotation is applied since the analytical procedures for these procedures are better developed than those of oblique rotation. Varimax specifically was chosen since it results in a clearer separation of factors (Hair, et al., 2006: 126; Also see Hair et al., 2010). Factor loadings of 0.51 and larger were considered significant and used for interpretation of structure (Hair, Black, Anderson & Tatham, 2006: 128).

The factors extracted through EFA were subsequently simulated through SEM, to be discussed next.

5.4.2.6 Step 6 – Structural equation model

SEM depicts the causal relationships among the latent variables (Cooper & Schindler, 2001: 586) and is often diagrammed for better understanding. This method is also known as classical path analysis and in this study was designed to determine whether value drivers are antecedents or mediators. Contrary to the dynamic path analysis, the classic path analysis is not time dependent (Fosen, Ferkingstad, Borgan & Aalen, 2006: 143). Path analysis is widely used in social science studies (Grapentine, 2000: 13; Stage, et al., 2004: 12) such as the current one.

5.5 QUESTIONNAIRE

According to the literature reviewed, the following constructs of relationship value were incorporated in the model: product quality, delivery performance, know-how, time-to-market, service support, and personal interaction. The constructs were classified as antecedents or mediators for relationship value resulting in orders. Refer to Table 5.1 for the different dimensions and constructs.

Table 5.1: Dimensions and Constructs of Research (Author)

Dimension	Construct
Value Driver	Relationship Value
Possible Mediators	Trust
	Commitment
Single Observation Constructs	BBBEE
	Price
	MIDP
	Retention
Core Offering (Value Driver)	Product Quality (PQ)
	Delivery Performance (DP)
Customer Operations (Value Driver)	Know-How (KH)
	Time-to-Market (TM)
Sourcing Process (Value Driver)	Service Support (SS)
	Personal Interaction (PI)

These constructs were modelled through a SEM: Figure 5.2 depicts the possible outcome of the model as determined from the literature. Additional constructs such as relationship value, commitment, trust, retention, MIDP and BBBEE were also measured. During the questionnaire validation process (discussed later in the chapter) these two issues were identified as prominent variables in the South African automotive industry.

Appropriate questions posed mostly by Eggert, et al., (2006) and Morgan and Hunt (1994) were applied to the research questionnaire. The table (5.2) below provides an outline of the origin of questions from various authors.

5.5.1 QUESTIONNAIRE: (INCLUDING REFERENCES)

The questionnaire determined the most prominent relationship value constructs of the best Tier 2 supplier (called Supplier A) from the viewpoint of their buyers, namely the Tier 1 suppliers. The reason why the best Tier 2 was investigated is the fact that it was deemed likely that the best Tier 2 supplier would reveal characteristics most desired by Tier 1 suppliers (buyers). The questionnaire is drawn from existing research and questions slightly adapted for the purpose of clarity in the South African automotive arena. The questions that were asked and the origin of the questions are depicted in Table 5.2.

Table 5.2: Origin of Questions (Author)

Author	Dimension	Construct	Original Questions	Adjusted Questions for this Research
Morgan and Hunt 1994	Mediator / Value Driver	Commitment	(1)The relationship that my firm has with Supplier A is something we are very committed to (2)The relationship that my firm has with Supplier A is something my firm intends to maintain indefinitely (3)The relationship my firm has with Supplier A deserves our firm's maximum effort to maintain the relationship	(1)The relationship that my firm has with Supplier A deserves our firm's maximum effort to maintain it (2)The relationship my firm has with Supplier A is something my firm intends to maintain indefinitely (3)The relationship my firm has with Supplier A is something we are very committed to
Morgan and Hunt 1994	Mediator / Value Driver	Trust	(1)In our relationship, Supplier A cannot be trusted at times (2)In our relationship, Supplier A can be counted on to do what is right (3)In our relationship, Supplier A has high integrity	(1)In our relationship, my firm feels that Supplier A can be counted on to do what is right (2)In our relati9onship with Supplier A, our firm feels that Supplier A can be trusted (3)In our relationship, Supplier A demonstrates a high level of integrity

Eggert ,et al .,2006	Core Offering (Value Driver)	Product Quality (Benefit)	(1)Compared to the second supplier, the main supplier provides us with better product quality (2)Compared to the second supplier, the main supplier meets our quality standards better (3)Compared to the second supplier, the main supplier's products are more reliable (4)Compared to the second supplier, we reject less products from the main supplier (5)Compared to the second supplier, the main supplier provides us with more consistent product quality over time (6)Compared to the second supplier, we have less variation in product quality with the main supplier	(1)Supplier A has the ability to secure product quality consistency (2)Supplier A has minimum product rejects (faulty) (3)Supplier A offers product reliability
Eggert ,et al .,2006		Delivery Performance (Benefit)	(1)Compared to the second supplier, the main supplier performs better in meeting delivery dates (2)Compared to the second supplier, we have less delivery errors with the main supplier (3)Compared to the second supplier, deliveries from the main supplier are more accurate (no missing or wrong parts)	(1)Supplier A has the ability to meet delivery dates (2)Supplier A provides acceptable delivery accuracy (no missing or wrong parts) (3)Supplier A offers minimum delivery errors (late, wrong address, wrong products)
Eggert et, al ., 2006	Customer Operations (Value Driver)	Know-How (Benefit)	(1)Compared to the second supplier, the main supplier provides us with better access to his know-how (2)Compared to the second supplier, the main supplier knows better how to improve our existing products (3)Compared to the second supplier, the main supplier performs better at presenting us with new products (4)Compared to the second supplier, the main supplier knows better how to help us drive innovation in our products (5)Compared to the second supplier, the main supplier knows better how to assist us in new product development	(1)Supplier A has the ability to drive innovation in products (2)Supplier A has the ability to provide general know-how (3)Supplier A has the ability to assist with new product development

Eggert, et al .,2006		Time-to-Market (Benefit)	(1)Compared to the second supplier, the main supplier performs better in helping us improve our time-to-market (2)Compared to the second supplier, the main supplier helps us more in improving our cycle time (3)Compared to the second supplier, the main supplier helps us more in getting our products to market faster (4)Compared to the second supplier, the main supplier performs better in helping us speed up product development	(1)Supplier A has the ability to help us to improve the cycle time to all activities in the manufacturing process (2)Supplier A has the ability to help us speed up product development (3)Supplier A has the ability to improve our time-to-market
Eggert, et al .,2006	Sourcing Process (Value Driver)	Service Support (Benefit)	(1)Compared to the second supplier, the main supplier provides us with better service (2)Compared to the second supplier, the main supplier is more available when we need information (3)Compared to the second supplier, the main supplier provides us with more appropriate information (4)Compared to the second supplier, the main supplier responds faster when we need information	(1)Supplier A provides good service support in general (2)Supplier A performs well with providing us with information (3)Supplier A has the ability to provide us with appropriate information
Eggert et al 2006		Personal Interaction (Benefit)	(1)Compared to the second supplier, it is easier to work with the main supplier (2)Compared to the second supplier, we have a better working relationship with the main supplier (3)Compared to the second supplier, there is a better interaction between the main supplier's people and ours (4)Compared to the second supplier we interact better with the main supplier (5)Compared to the second supplier, we can address problems more easily with the main supplier (6)Compared to the second supplier, we can discuss problems more freely with the main supplier (7)Compared to the second supplier, the main supplier gives us a greater feeling of being treated as an important customer	(1)Supplier A has the ability to address problems (2)Supplier A offers good working relations (3)Supplier A has the ability to give us a feeling of being treated as an important client
Eggert ,et al., 2006	Retention	n.a	(1)Our firm expects to expand its business with the main supplier (2)The main supplier will receive a larger share of our business in the future (3)The main supplier will be used more than it is now over the next few years	(1)My firm expects to expand the business they currently do with Supplier A

Eggert ,et al., 2006	Relationship Value	n.a.	(1)Compared to the second supplier, the main supplier adds more value to the relationship overall (2)Compared to the second supplier, we gain more in our relationship with the main supplier (3)Compared to the second supplier, the relationship with the main supplier is more valuable (4)Compared to the second supplier, the main supplier creates more value for us when comparing all costs and benefits in the relationship	(1)Our organisation gains value from the relationship with Supplier A (2)When comparing all costs and benefits involved in our relationship with Supplier A, my firm feels that Supplier A creates value for us (3)The relationship my firm has with Supplier A is valuable to us
Typical South African Scenario questions	Price			(1)Supplier A provides us with acceptable component pricing
	MIDP			(1) Please select a number in the 7-point scale to indicate how reliant, directly or indirectly, your organisation is on the MIDP (Motor Industry Development Programme)
	BBBEE			(1) Please select a number in the 7-point scale to indicate how important the BBBEE status of your high volume product range suppliers is to your organisation

However, in order to determine if the questions obtained from literature were applicable to the local automotive environment, a validation process was followed which will be discussed in the next section.

5.5.2 QUESTIONNAIRE VALIDATION PROCESS

A common approach in social studies to measure attitudes is to make use of close ended questionnaires and to have respondents to rate the construct (Perreault, et al., 2002: 232).

Qualitative research, according to Cooper and Schindler (2001: 139), forms part of exploratory research and is useful to improve the final research design. The questionnaire validation process was undertaken in the form of qualitative research through focus groups with industry experts by means of in-depth interviews (Cooper & Schindler, 2001: 140). This process ensured that the questionnaire was aligned to the industry views and included four prominent automotive industry role players. According to Cooper and Schindler (2001: 142) as well as Perreault and McCarthy, (2002: 230), the exploratory quantitative interview is an in-depth, open-ended response method to share new ideas which enriches the research questions and enhances the effectiveness of the research design.

The advantage of a qualitative exploratory focus group session is to be found in the fact that it is a quick, inexpensive and flexible method to determine core issues as respondents can react freely in their own words and new ideas can be identified (Cooper & Schindler, 2001: 145) and incorporated in the questionnaire if needed.

Ten semi-structured questions were asked in order to obtain the perceptions of senior management in the South African automotive industry regarding BBBEE, MIDP, relationship value and pricing. Refer to Annexure D to view the questions.

The four industry experts identified were:

5.5.2.1 N Lamprecht (Manager – AIEC)

The Automotive Industry Export Council (AIEC) was established in 1999 as the official private sector export promotion body for the automotive industry in South Africa. Products addressed include passenger cars, trucks and buses, original equipment components, aftermarket parts and accessories.

5.5.2.2 Mark Walker (CEO – Venture Auto)

Venture Auto is a Tier 1 supplier to OEMs for moulded and painted interior and exterior plastic automotive components, for example, bumpers, exterior trim parts (mirrors, door

protection strips, rocker panels, grilles, wheel trims) and interior trim parts (instrument panels, door panels, consoles, pillar trims) as well as non automotive, assembly and JIT supply.

5.5.2.3 Anthony Tayler (Technical Director – Vacuform)

Vacuform is a Tier 1 supplier to OEMs for trim components, aerokits and related accessories, reaction injection moulding (integral and semi-rigid), foam filled parts, spoilers, energy absorbing foam, PVC floor mats, LDV bin covers, vacuum-formed mudguard liners, inner liners, car consoles, metal reinforced PU-parts, under covers, battery covers, grilles, wheel covers, laminated car interior parts, parcel shelves, shrouds, instrument panels, and PE-foam moulded water shield door protectors.

5.5.2.4 Willem Zorgman (Procurement Manager – ZF Lemförder)

ZF Lemförder is a Tier 1 supplier for OEMs. ZF products make a major contribution to mobility. ZF develops and produces transmissions, steering systems, axles, and chassis components as well as complete systems for passenger cars, commercial vehicles, and off-road machinery. ZF is also an important transmission specialist for special and rail vehicles, marine craft, and helicopters.

The outcomes of the qualitative interviews with regard to the questionnaire are discussed in the next section.

5.5.3 OUTCOMES OF QUALITATIVE INTERVIEWS

All interviewees emphasised the importance of relationship marketing (Rehman, Shareef, & Ishaque, 2012: 600) and the value thereof (refer to annexure C for a summary of the interviews). They associate the relationship value of their best suppliers with: trust, commitment, quality of product and supply, cost and personal interaction. These traits correspond to the relationship marketing value constructs suggested by Morgan and Hunt (1994), Ulaga and Eggert (2005) and Eggert, et al., (2006).

All interviewees emphasised the importance of the core offering (product quality and delivery performance) followed by the sourcing process (personal support and personal interaction) and to a lesser extent customer operations (know-how and time-to-market). Commitment and trust were also mentioned as extremely important traits in the automotive component supply chain (Ulaga & Eggert, 2005; Eggert, et al., 2006).

It was further mentioned that pricing is extremely important in order to be competitive in the global arena. However, some Tier 2 suppliers are still not up to standard as regards quality, which is mainly due to their financial position as they are not receiving orders for large quantities. Problems experienced by Tier 1 suppliers with Tier 2 suppliers include a general lack of global competitiveness, outdated technology, relationship marketing traits, and production quality areas that have not yet been fully identified (refer to annexure C).

BBBEE and the MIDP are two unique South African criteria in the sourcing supply chain and all respondents also regarded these as crucial. These two constructs were included in the SEM in order to determine their relationship towards relationship marketing value. Pricing was also regarded as important by the interviewees and was also included in the SEM. From a South African perspective it was necessary to incorporate questions in the questionnaire referring to BBBEE issues as well as the MIDP.

Since pricing is considered as extremely important in the automotive supply chain, a question relating to relationship value in relation to pricing was included in the questionnaire.

The summaries of the interviews are attached as annexure C.

5.5.4 QUESTIONNAIRE SCALE

In order to secure reliability and validity, researchers may define scales from previous research (Hair, et al., 2006: 735, 779; Also see Hair et al., 2010) that performed well. In line with the research of Eggert, Ulaga and Schultz (2006: 23), a seven point scale was utilised for the current research.

For the purpose of this study, a semantic differential scale was utilised to measure the psychological meaning of an attitude object (Cooper & Schindler, 2001: 234). As this study is applied to relationship value, which is of a conceptual nature (Eggert, et al., 2006: 20), the semantic differential scale is therefore suitable. A semantic scale comprises a set of rating scales, usually with seven points, by which one or more respondents rate one or more concepts on each scale item (Cooper & Schindler, 2001: 234).

According to Garland (1990: 19), as well as Cooper and Schindler (2001: 234), managers use this scale for marketing related studies. A seven point semantic rating scale with *"strongly disagree"* and "*strongly agree"* will force respondents to make a specific choice and not to give too many options which might result in a central tendency (Cooper & Schindler, 2001: 235).

Various research undertakings regarding measurement scales have focussed on the number of points on a scale, but there is no conclusive support for choosing a specific number of points (McKelvie, 1978: 185; Krosnick & Fabrigar, 1997: 141 and Cooper & Schindler, 2001: 231). Krosnick and Fabrigar (1997: 144) state that more scale points will generally be more effective but it is important to note that too many may reduce the clarity of meaning of the response options. In relation to reliability and validity, research carried out by McKelvie (1978: 185) and Krosnick & Fabrigar, (1997: 148) suggests that the optimal length of a rating scale is 5 – 7 points, as scales of this length appear to be more reliable and valid than shorter or longer scales.

Another consideration was to distinguish between bipolar scales (which reflect two opposing alternatives with a clear conceptual midpoint) and unipolar scales (which reflect varying levels of some construct with no conceptual midpoint and with a zero point at the one end (Krosnick & Fabrigar, 1997: 143). This study will apply the bipolar scale measuring "*strongly disagree*" to "*strongly agree*" (see Figure 5.3). Another important consideration to take into account with scale points was to include a middle alternative (Krosnick & Fabrigar, 1997: 147); the 7 point scale provided the rater with the choice of a middle point (4) with three options towards the left and three options towards the right. With a unipolar scale, a midpoint presumably represents a moderate position (Krosnick &

Fabrigar, 1997: 144) but at the same time forces the rater to make a choice (Garland, 1990:19).

Several advantages are associated with the semantic differential scale such as: it produces interval data, it is an easy and efficient way to secure attitudes from a large sample which may be measured in both direction and intensity, it prevents response distortion while it provides a comprehensive picture of the meaning of an object and a measure of the subject doing the rating (Cooper & Schindler, 2001: 234).

Table 5.3: Seven Point Semantic Scale of the Questionnaire (Author)

Strongly Disagree								**Strongly Agree**

5.5.5 FINAL QUESTIONNAIRE

The questionnaire (included in Annexure E) evaluated three dimensions divided into six constructs (refer to Table 5.1). Further constructs such as the core offering (product quality and delivery performance), customer operations (know-how and time-to-market) as well as the sourcing process (service support and personal interaction) were incorporated in the model.

Further to the above the researcher also attempted to determine whether trust and commitment can be depicted as value antecedents or mediators. The relation between relationship value and retention was also determined as well as the emphases placed on BBBEE ratings and the importance of the MIDP.

The model was further intended to determine whether relationship value would result in order retention.

5.5.5.1 Questionnaire section A – research questions

The final questionnaire (refer to Annexure E) was based on the questionnaires devised by Eggert, et al., (2006) and Morgan and Hunt (1994). A total of 29 questions relating to the

constructs mentioned were included in the questionnaire. The questionnaire asked the Tier 1 supplier (customer) to rate their best Tier 2 supplier on specific issues relating to relationship value.

It is important to note that this study only researched relationship value benefits (as stated in chapter 3) and did not focus on relationship value sacrifices.

5.5.5.2 Questionnaire section B – respondent profiles

Response profile questions (refer to Annexure E) further enabled the responses to be divided into different categories such as the size of the organisation, turnover, component segments, different decision maker opinions, and the possibility of expansion of orders with the applicable supplier.

Response profile information provided valuable insights into the thinking patterns of organisations clustered in different groups.

Only senior officials were interviewed during the research. Additional response profile information would have enabled the further breakdown of data into the viewpoints held by those occupying different management structures, for example, Chief Executive Officer, Technical Manager as well as an Administrative or Procurement Manager. These managers are responsible for decisions regarding suppliers and therefore senior level managers were chosen to participate in the research.

Another important consideration was the locality of the plant in terms of the South African automotive clusters, the turnover of the plant as well as the number of employees employed in the specific plant. The respondents also indicated whether the shareholding of the organisation was local or international or a mixture.

Finally a differentiation will be made between the types of organisation as specified by NAACAM, namely:

- Manufacturers and suppliers of OE components to vehicle assembly plants only

- Manufacturers and suppliers of OE as well as P&A and aftermarket/replacement components
- Manufacturers of accessories and replacement parts
- Manufacturers of allied products supplied to vehicle assembly plants and other sectors of industry, e.g., steel, paint, glass, abrasives, fasteners, upholstery, tooling, pallet, packaging, identification/marking
- Suppliers of related/support products to the motor industry.

Furthermore, Section B provides insight into the influence of unique South African constructs such as BBBEE and MIDP. A question relating to pricing is also included in this section. Although the supplier (Tier 2) does not recommend price, but rather the buyer (Tier 1) prescribes price, this is not necessarily a negotiable variable (as described in chapter 2). However, price as a variable was included in the questionnaire just to test this scenario. Further, the model of this research will only focus on relationship value benefits and not the sacrifices.

- **BBBEE**

Broad-Based Black Economic Empowerment (BBBEE) is a specific government policy to advance economic transformation and enhance the economic participation of black people in the South African economy. In addition, BBBEE aims to ensure, through equity and empowerment policies and strategic interventions, that the South African economy is restructured, to enable the meaningful participation of black people (Lamprecht, 2006: 121), women and rural or under-developed communities in the mainstream economy, in a manner that has a positive impact on employment, income redistribution, structural re-adjustment and economic growth (www.thedti.gov.za, no date).

The dti published the final Codes of Good Practice in the Government Gazette on 9 February 2007, in terms of which a number of Transformation Sector Charters (also referred to as Sector Charters) were introduced, vetted and analysed for compliance, as per the stipulations of either Sections 9 or 12 of the BBBEE Act, No. 53 of 2003.

"The responsibility of the dti is to ensure that Sector Charters submitted for gazetting are sufficiently aligned to the BBBEE Act and Codes of Good Practice and more importantly, that they advance the objectives of sustainable BBBEE" (www.dti.gov.za, no date).

The generic scorecard, or alternatively, the sector specific scorecard approach, as well as certain concerns with respect to preferential procurement, equity equivalent in respect of multinational companies and the impact on the cost of doing business in South Africa require further clarification by various industry sectors.

The codes are legally binding only on government agencies. Compliance by private sector companies is voluntary. However, companies would be seriously impacted by non-compliance as this would inhibit doing business with other companies seeking to obtain BBBEE points. A lack of such points would practically eliminate the ability to compete for government licences, concessions and tenders. The scorecard comprises seven categories and measures progress against compliance targets. The said categories are ownership or equity equivalent, management control, employment equity, skills development, BBBEE procurement, enterprise development and socio-economic development. BBBEE rating companies that verify compliance must be accredited by the South African Accreditation System (Lamprecht, 2006: 121).

The influence of BBBEE and its Relationship Value within the automotive supply chain was also measured during the research.

- **MIDP**

Another extremely important and unique South African contributor towards the automotive industry is the MIDP. In his fairly recent research, Lamprecht (2006: 1) points out that the MIDP is a sector specific part of government's encouraging the competitiveness of the domestic automotive industry and facilitates increased production and exports of vehicles and components. Lamprecht (2006: 321) adds that the introduction of the MIDP resulted in a 1300 percent increase (after 1995) in vehicle

exports, massive foreign investments and overall production and operational efficiencies in the South African automotive industry.

Respondents were also asked to answer questions relating to the MIDP. The automotive industry role players benefit directly from the MIDP as well as indirectly though increased production volumes (Lamprecht, 2006: 296). The MIDP has such a large impact on the South African automotive industry that the majority of the large role players are convinced that South Africa would not be globally competitive without the MIDP (Lamprecht, 2006: 297). The MIDP will have run its course by the end of 2012; recommendations were made to Government in order to extend MIDP benefits post 2012 (Lamprecht, 2006: 313).

Without the MIDP, local OEMs will either have to import complete built up products or components. This will severely affect local automotive component suppliers. Hence, the MIDP and its role in the industry should not be underestimated and it is important to determine the relationship between the MIDP and relationship value.

5.5.5.3 Questionnaire Section C

Finally, section C of the questionnaire (refer to Annexure E) defined the designation of the respondent with the necessary contact details. The details are not disclosed; they were only included to track responses or to obtain clarity if the need arises as well as to serve as a control mechanism to prevent the questionnaire being sent to the respondents who had already completed it.

5.6 BENCHMARK

The questionnaire is based on previous research (Hair, et al., 2006: 735; Also see Hair et al., 2010) undertaken by Eggert, et al., (2006). However, Eggert, et al., (2006) compared the main supplier with an alternative one. This scenario does not generally exist in the South African automotive industry, and usually a choice is made between the high volume range supplier and an import substitute. Very seldom is an alternative supplier available and in this case, the high volume range supplier will be benchmarked against the market.

Questions pertaining to trust and commitment were obtained from the KMV study conducted by Morgan and Hunt (1994).

5.7 SAMPLING FRAME

The questionnaires were distributed to all NAACAM (National Association of Allied and Automotive Component Manufacturers) via email, which can be defined as the population as well as the sampling frame. NAACAM members are classified as Tier 1 Suppliers (See Figure 5.3) which source from Tier 2 suppliers in the automotive supply chain. Hence, the aim of this research is also to determine what the expectations of the customer (Tier 1) are from a good supplier (Tier 2 supplier).

The automotive manufacturer (OEM) and the Tier 1 supplier are owned by multi national organisations while the suppliers in the supply chain are usually of local origin and should benefit as much from the automotive landscape as the large multinational organisations (Tolmay, 2004).

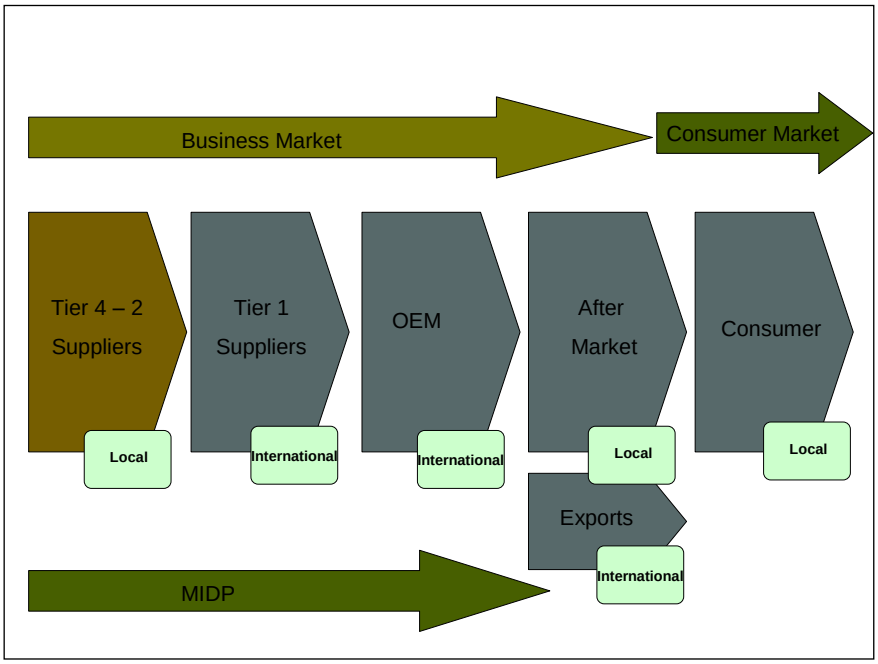


Figure 5.3: Automotive Landscape (Author)

The South African automotive industry is a smaller replica of the global automotive industry. Globalisation poses various opportunities as well as numerous threats to the

South African automotive industry, especially Tier 2 suppliers and suppliers lower down in the supply chain.

Various academic studies were undertaken on the South African automotive industry landscape by Lamprecht (2006), Barnes (2000b), Black (2001), and Kaggwa (2008); they focussed mainly on quality standards, export potential, and international production benchmarking. However, very few studies were carried out into relationship marketing in the given automotive industry. The most applicable relationship marketing studies undertaken on the South African industrial market reviewed include Van der Wath (1996), Brunyee (1996), Vakis (1998), and Lazarus (1997). None of these studies introduced or tested a relationship marketing value model or the measurement thereof; this study will focus on relationship marketing in the business to business (B2B) environment only and not on that in the consumer industry.

According to Barnes (1994: 562), relationship marketing is a very prominent and applicable approach for the B2B environment. Business markets are distinguished from consumer markets by the intended use of the product, and the intended consumer. Relationships, rather than simple transactions, provide the central focus in business markets. Hutt and Speh (2004: 4) explain the characteristics of business market customers as follows:

- The business market can be classified into three broad categories, namely: (1) commercial enterprises (such as corporate organisations), (2) government organisations (such as government departments), and (3) institutions (such as hospitals): for the purpose of this thesis, the researcher focused mainly on the first mentioned;

- A single purchase by a business customer is far larger than that of an individual consumer: A corporate organisation might place an order for millions of Rands from a supplier, in contrast with a consumer who might buy groceries for only a few rands at the supermarket;

- The demand for industrial products is derived from the ultimate demand for consumer products – in the business market goods are usually not sold to the end customer; however, such a customer strongly influences the transaction as they determine the market needs;

- Relationships between business marketers tend to be close and enduring – unlike the consumer customer the business customer will not only buy once off, but over a span of years. There is virtually no relationship with the consumer as the marketer will never (or rarely) meet with the consumer;

- Buying decisions by business customers often involve multiple buying influences, rather than a single decision maker, while in the consumer market, the customer will largely decide on the product and proceed to purchase. In the business market, various company representatives might influence the decision owing to their playing corporate roles such as the financial manager, procurement manager, marketing manager, etc.;

- Although serving different types of customers, business marketers and consumer goods marketers share the same job titles – although both possess the same titles, their marketing activities are completely different from each other. The business marketer will market goods directly to the representative of another organisation while the consumer marketer will market goods (usually consumer goods) directly to the end buyer or consumer.

The service industry will not be investigated, but only the industrial manufacturing industry in the automotive supply chain, which is divided into (1) parts and accessories, (2) after sales products and the OEM (original equipment manufacturing) supply chain where the automobile is manufactured. (see Figure 5.4).

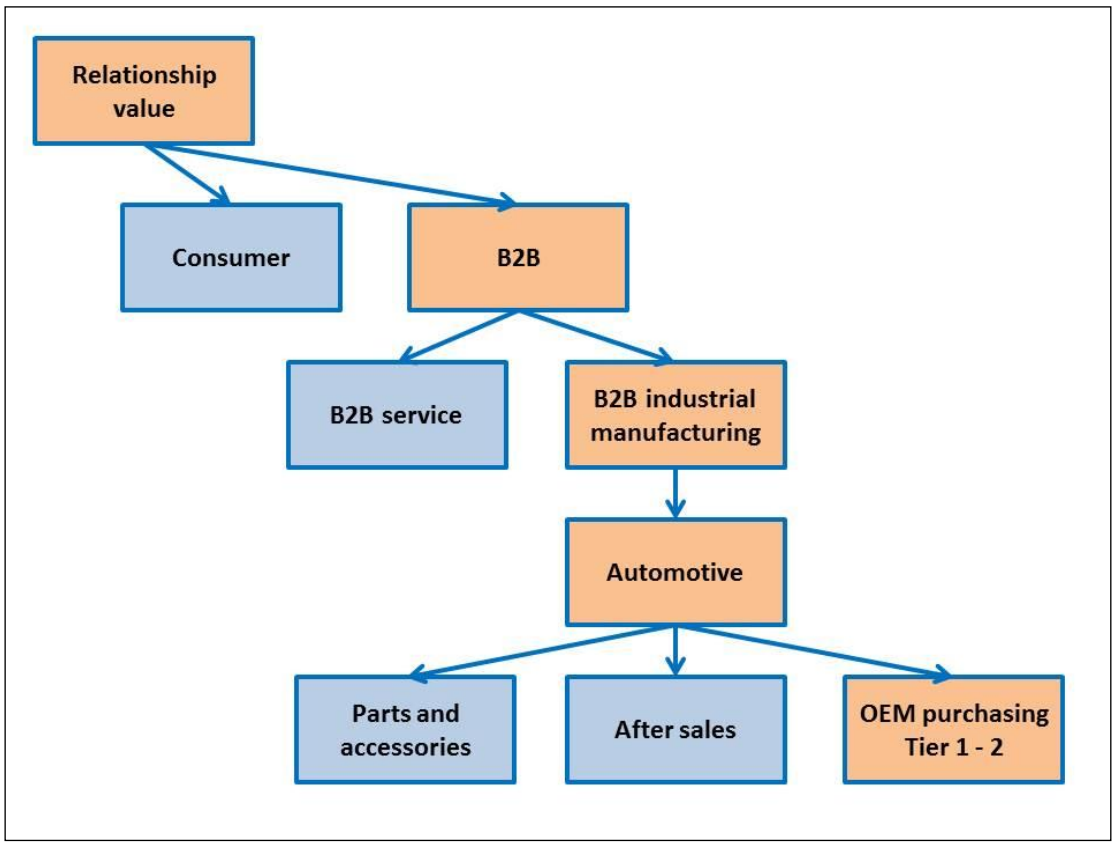


Figure 5.4: Target Market Segment (Author)

A list of the companies who made up the target market segment (sampling frame) for the research is attached as Annexure F. They are classified into manufacturing categories which are spelled out in Annexure G. Suppliers representing codes E (suppliers of related/support products to the motor industry) and SP (Service Providers) (refer to Annexure G) were not interviewed as they are not manufacturing products for the OEM supply chain but are merely service providers. These service providers include financial institutions, auditors, and software application companies and are not directly involved in the OE supply chain. A limited sampling frame (Tier 1 suppliers) was available; therefore this is also regarded as a delimitation of this study.

5.8 TIMELINE

The majority of research reviewed on Relationship Value was undertaken at a single point of time (Lapierre, 2000; Ulaga & Eggert, 2005). Eggert, et al., (2006) undertook a longitudinal study which revealed that the life cycle stage of the organisation exerted a definite influence on the relationship value constructs. However, this research will be a

snapshot taken at a specific time and will not measure the relationship value over a period. This may be viewed as a research delimitation, which is discussed later in this chapter. However, this research is exploratory by nature with the aim to contribute towards literature regarding the conceptualisation of a relationship value model.

5.9 VALIDITY

Validity refers to the extent to which a test measures what is actually desired to be measured (Cooper & Schindler, 2001: 210); the validity criteria will be addressed as follows:

The literature review confirms content validity regarding the questions and scale (Hair, et al., 2006: 779; Also see Hair et al., 2010) of the questionnaire extrapolated from research performed by Eggert, et al. (2006) and Morgan and Hunt (1994).

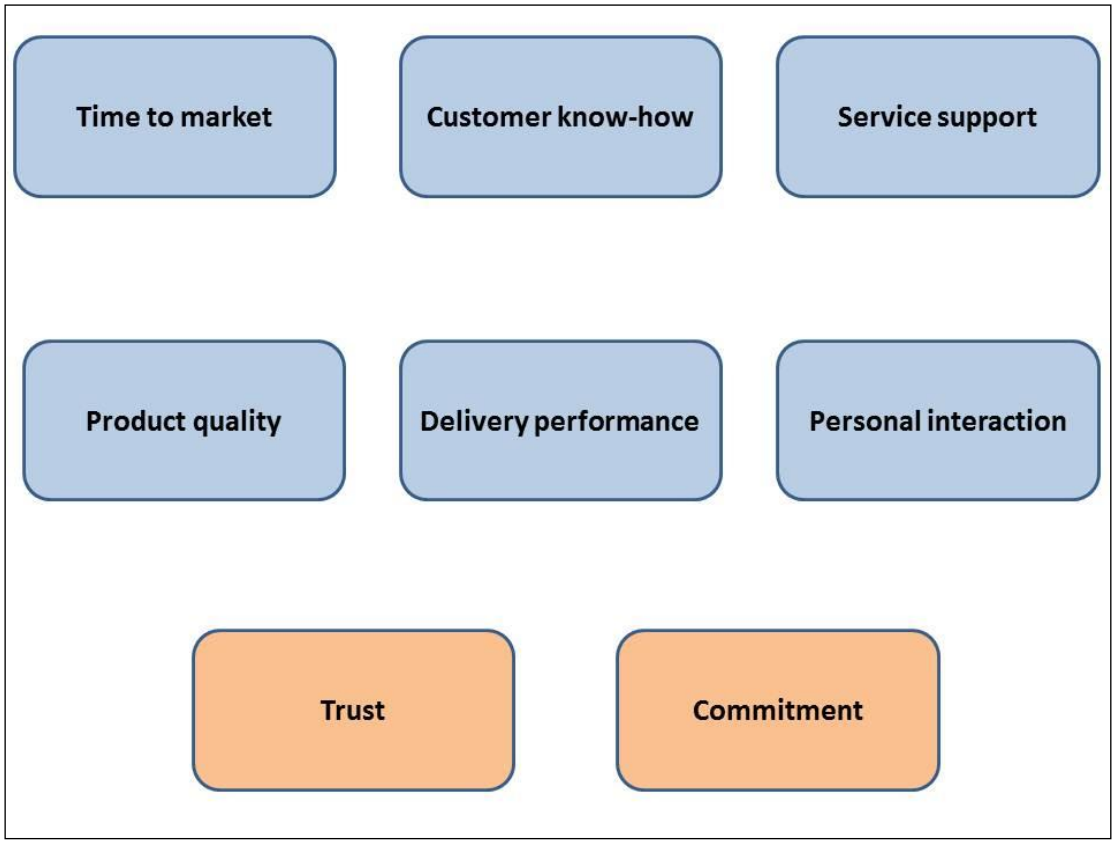


Figure 5.5: Constructs Identified during Literature Review (Author)

The constructs in blue (Figure 5.5) are identified as possible beneficial relationship value constructs from various studies undertaken by Eggert, et al., 2006. The constructs in yellow are identified as possible key mediating relationship value constructs stemming from research undertaken by Morgan and Hunt (1994).

The questions were also validated during the pilot (questionnaire) validation process where industry experts were asked to give their inputs, after which the questionnaire was finalised.

In order to secure criterion-related validity (Cooper & Schindler, 2001: 213) the research sample provided all Tier 1 suppliers who were registered as a NAACAM member an equal opportunity to score their requirements. The companies were further divided into certain demographic categories in order to measure results specific to a certain industry segment and profile.

5.10 RELIABILITY

According to Hair, et al., (2006: 137; Also see Hair et al., 2010), reliability is an assessment of the degree of consistency between multiple measurements of a variable and is also an indicator of convergent validity (Hair, et al., 2006: 777; Also see Hair et al., 2010): the rule of thumb is that a reliability coefficient of between 0.6 and 0.7 is regarded as acceptable for a SEM, provided that other indicators of the model's construct validity are good. The Cronbach's alpha coefficient will determine the reliability of the SEM (Hair, et al., 2006: 137; Also see Hair et al., 2010).

5.11 LIMITATIONS

Financial constraints as well as time constraints limited the research. This study only approached NAACAM (National Association of Automobile Component and Allied Manufacturers) members as the research framework (refer to Annexure F). Not all Tier 1 automotive component suppliers are members of NAACAM. However, the Naacam membership list is the only complete sample frame available for the South African automotive Tier 1 suppliers.

5.12 DELIMITATIONS

A definite delimitation of the research is the fact that it only deals with certain constructs of Relationship Value derived from models designed by Morgan and Hunt (1994) and Eggert, et al., (2005). The research will only consider Relationship Value constructs separated into antecedents or mediators.

Further delimitations identified are:

- The research is in addition a time "*snapshot*" study, not measured over a period of time as was the case in Eggert, et al., (2006).
- According to Eggert, et al., (2006) the relationship value can be improved by either increasing relationship benefits or decreasing relationship costs. This research only focused on the role of relationship benefits in value creation.
- Sample size. Only NAACAM members were interviewed as this was the only list available of Tier 1 suppliers in South Africa. It might be argued that not all Tier 1 suppliers are members of NAACAM.
- This research focuses only on the South African automotive industry and, according to the Harmonised System (HS), is restricted to code 8703 vehicles with the definition: *"Motor cars and other motor vehicles for the transport of persons*".
- Also, this study will not focus on the consumer market or after market, in reference to the South African automotive industry as it will only research the business relati*onships applicable in the OEM supply chain. This research wil*l not take into consideration the "*sacrifices*" associated with value but only the "*benefits*". Therefore it will only determine the constructs contribut*ing towards value (through multiple regressions*) and the model will not act as an equation model to measure the difference between "*sacrifices*" and "*benefits"*.

5.13 ETHICAL CONSIDERATIONS

Ethical compliance is regarded as extremely important for the purpose of this research.

In this respect, *"Ethics are norms or standards of behaviour that guide moral choices about our behaviour and our relationship with others. The goal of ethics in research is to ensure that no one is harmed or suffers adverse consequences from research activities"* (Cooper & Schindler, 2001:112).

The researcher presented a non disclosure agreement letter from the School of Business Leadership (UNISA) to the respondents, stating that she is enrolled as a DBL student, that all information has been disclosed to the interviewees and that no deception is occurring. This was given to all interviewees along with the research questionnaire. Verbal or written informed consent was required from the interviewees.

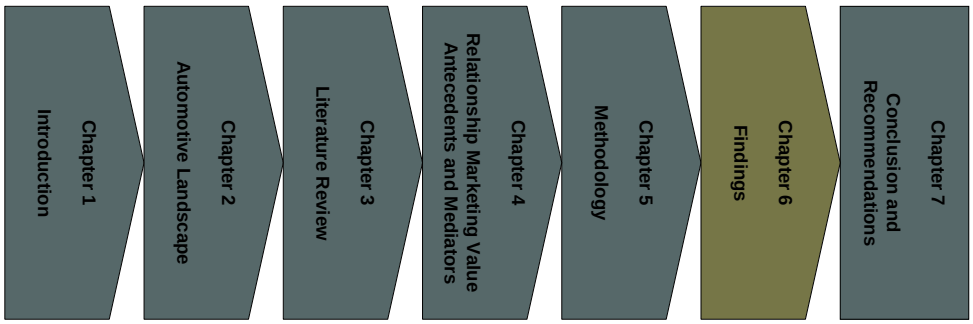
The letter is attached as Annexure H.

5.14 CONCLUSION

Various literature areas that have not yet been fully identified concerning the relationship value are prevalent; this research aimed to fill certain areas that have not yet been fully identified and to contribute towards the literature. The main objective of the exploratory research was to design an SEM in order to depict the relationship between certain relationship value constructs.

The findings of the research will be discussed in the next chapter.

CHAPTER 6 - FINDINGS



6.1 INTRODUCTION

The purpose of this chapter is to present the research findings regarding the respondent profile, descriptive statistics, exploratory factor analysis and structural equation model (SEM). The validity and reliability of the results are also motivated.

This chapter is divided into the following sections: respondent profile, descriptive findings, "*goodness of fit*" of the SEM, and the conclusion. The research analysis is divided into a six step approach, namely: step 1 – review proposed academic model, step 2 – determine data suitability for EFA, step 3 – review communalities between items through PAF (Principle Axis Factoring), step 4 – reveal total variance, step 5 – apply rotated axis factoring, and step 6 – simulate SEM.

The (six step) process above will be described in more detail; however, the respondent profile will be explained first, including the population, sampling frame and response rate.

6.2 RESPONDENT PROFILES

There were 119 respondents from those who were drawn from the NAACAM membership list. Refer to Annexure F for the research framework (Tier 1 suppliers).

Demographic information of the participating Tier 1 automotive component suppliers were obtained according to: the type of products manufactured, shareholding profiles, turnover, number of employees, plant location and designation of the respondent.

Sections B and C of the questionnaire consisted of the demographic details of the respondents and the organisations they represent. The findings from these sections are summarised in Table 6.1 and discussed in more detail in the following sections.

Table 6.1: Respondent Profiles (Author)

B3 Are you representing a plant/branch OR head office?	Plant/Branch	71	66.4%
	Head Office	36	33.6%
	Total	**107**	
B4 Please indicate your type of plant/branch OR head office (as selected in question 3 of this section).	Manufacturers and suppliers of OE components to vehicle assembly plants only	16	15.0%
	Manufacturers and suppliers of OE as well as P & A and aftermarket/replacement components	72	67.3%
	Manufacturers of accessories and replacement parts	4	3.7%
	Manufacturers of allied products supplied to vehicle assembly plants and other sectors of the industry	8	7.5%
	Suppliers of related/support products to the motor industry	7	6.5%
	Total	**107**	
B6 Please indicate the shareholding structure of your plant/branch OR head office (as selected in question 3 of this section).	Local Shareholding	31	29.2%
	International Shareholding	47	44.3%
	Mixture – Local and International Shareholding	28	26.4%
	Total	**106**	
B7 Please indicate the approximate annual turnover of your plant/branch OR head office (as selected in question 3 of this section)	R0 – R5 Million	5	5.0%
	>R5 Million – R50 Million	17	16.8%
	>R50Million – R200Million	25	24.8%
	>R200 Million	54	53.5%
	Total	**101**	
B8 Please indicate the approximate number of full time employees at your plant/branch or head office (as selected in question 3 of this section).	1 - 20 employees	2	1.9%
	21 - 50 employees	10	9.3%
	51 - 200 employees	40	37.4%
	>200 employees	55	51.4%
	Total	**107**	
B9 Please indicate the location of your plant/branch OR head office (as selected in question 3 of this section).	Gauteng Automotive Cluster (including Brits, GaRankuwa)	49	46.7%
	KZN Automotive Cluster	10	9.5%
	Eastern Cape Automotive Cluster	34	32.4%
	Western Cape automotive Cluster	12	11.4%
	Total	**105**	
C1 Please indicate your position in your organisation.	CEO/Senior Manager	51	52.0%
	Technical Manager	10	10.2%
	Administrative/ Procurement Manager	37	37.8%
	Total	**98**	

The first point of discussion is the company representation, that is, plant or head office representation.

6.2.1 COMPANY REPRESENTATION

For the purpose of the research, in order to achieve a representative view, company representation is important, especially that of the head office as well as the manufacturing plants. Although buying decisions are guided by head office policies, they are executed by the plant representatives who liaise with suppliers on a daily basis.

Table 6.1 depicts the distribution of the 107 respondents of which more than two thirds (66.4%, *n*=71) represented a plant or branch and a third represented the head office (33.6%, n=36). This is a representative sample as the majority of operational managers are located at the plant and only top management is represented at head office. Therefore, the ratio between the plant and the head office is satisfactory for the purpose of this research.

It was also important to determine the type of Tier 1 suppliers, which will be discussed in the next section.

6.2.2 TYPE OF COMPANY STRUCTURE REPRESENTED

In order to classify Tier 1 suppliers, the respondents were asked to indicate their line of business. Some Tier 1 suppliers provide components to the production supply chain, while others provide to the aftermarket. It is also possible that Tier 1 suppliers provide raw material or services to the supply chain.

Five different types of Tier 1 organisations are specified by NAACAM, namely:

- Manufacturers and suppliers of OE components to vehicle assembly plants only
- Manufacturers and suppliers of OE as well as P&A and aftermarket/replacement components
- Manufacturers of accessories and replacement parts

- Manufacturers of allied products supplied to vehicle assembly plants and other sectors of industry, e.g., steel, paint, glass, abrasives, fasteners, upholstery, tooling, pallet, packaging, identification/marking
- Suppliers of related/support products of the motor industry.

Table 6.1 indicates that more than one third (67.3%, *n*=72) of the 107 respondents represent manufacturers and suppliers of OE as well as P&A (parts and accessories) and aftermarket/replacement components (see second point above). This constitutes a balanced representation of Tier 1 suppliers.

The company shareholding structure is addressed in the next section.

6.2.3 SHAREHOLDING STRUCTURE

Traditionally, the majority of Tier 1 suppliers have multi-national shareholding. However, a good spread was identified between local shareholding, international shareholding and a mixture of the two.

Table 6.1 reveals that 44.3% (*n*=47) of the 106 respondents indicated that they constitute an international shareholding structure. The local shareholding component represented 29.2% (n=31) and the mixture (local and international shareholding) constitutes 26.4% (n=28).

It is important that all three shareholding structure Tier 1 firms are represented in order to obtain objective feedback regarding South African related issues such as BBBEE and the MIDP (single observations).

In the next section the company turnover will be discussed.

6.2.4 COMPANY TURNOVER

Tier 1 automotive component suppliers are large organisations and the majority of the respondents indicated that the annual turnover of their company exceeded R200 Million per annum (see Table 6.1).

Table 6.1 indicates that the companies that earned more than R200 million comprised the largest proportion of the sample (53.5%, *n*=54) of the 101 respondents who disclosed their approximate annual turnover. The companies with a turnover of between R50 million and R200 million were represented by 24,8% of the respondents; the companies with a turnover of R5 million to R50 million, 16,8%; and finally, smaller companies with a turnover of less than R50 million, by 5% of the respondents.

Another indication of the size of the company is the size of the workforce, which will be discussed next.

6.2.5 SIZE OF WORKFORCE

Corresponding to the turnover of the company (in the section above) Tier 1 automotive component suppliers employ a large workforce.

As in Table 6.1, 51,4% of the 107 respondents indicated that they employed more than 200 employees; 37,4 %, 51 to 200 employees; 9,3 %, between 21 to 50 employees; and 1,9% less than 20 employees.

Respondents were also requested to provide information regarding their physical location.

6.2.6 LOCATION

The South African automotive cluster is represented by four automotive clusters, namely those in Gauteng, the Eastern Cape, KZN, and the Western Cape, in descending order of size. The feedback by the respondents corresponds to the size of the clusters.

From the data obtained (Table 6.1), a total of 46.7% (*n*=49) of the respondents' businesses are located in the Gauteng Automotive Cluster, which is also the largest automotive cluster. Although Brits and GaRankuwa are located in the North West Province, it is regarded as part of the Gauteng automotive cluster due to their close proximity to Rosslyn.

A total of 32.4% (*n*=34) of the respondents are located in the Eastern Cape, in the second largest of the automotive clusters. The KwaZulu Natal Automotive cluster represents 9,5% (n=10) and the Western Cape cluster, 11,4% (*n*=12).

Respondents were also required to indicate the positions they held in their respective companies.

6.2.7 POSITION HELD BY RESPONDENT

This researcher aimed to obtain a representative and objective opinion from the management of the different divisions of Tier 1 suppliers. Procurement decisions are generally made by procurement managers, but strategic direction is provided by the CEO, while technical decisions are influenced by the technical managers as they operate on the production floor and are in close contact with the products of the suppliers. In order to secure a representative view on procurement decisions, all three parties were approached.

A good spread was obtained (Table 6.1) during the research as a total of 52.0% (*n*=51) of the respondents held CEO or Senior Management positions while 37.8% (*n*=37) of them were Administrative or Procurement Managers and 10.2% (*n*=10), Technical Managers.

The descriptive findings regarding the value constructs will be discussed in the next section.

6.3 DESCRIPTIVE FINDINGS – VALUE CONSTRUCTS

The questionnaire included 18 questions relating to relationship value constructs. All the questions except TM_xiii (in Table 6.2) revealed a mean above 5, and no significant deviations were observed.

Table 6.2: Means and Standard Deviations of Questions regarding Value Constructs (Author)

	Valid N	Mean	Standard Deviation
DP_i Supplier A has the ability to meet delivery dates.	119	5.849	1.030
DP_xx Supplier A makes minimal delivery errors (late, wrong address, wrong products).	114	5.561	1.255
DP_xxv Supplier A provides acceptable delivery accuracy (no missing or wrong parts).	114	5.737	1.153
PQ_v Supplier A has minimal product rejects (faulty).	114	5.868	1.035
PQ_xix Supplier A has the ability to secure product quality consistency.	114	5.798	1.122
PQ_xxiii Supplier A offers product reliability.	114	5.904	.892
TM_xi Supplier A has the ability to help us speed up product development.	112	5.205	1.357
TM_xiii Supplier A has the ability to help us to improve the cycle time of all activities in the manufacturing process.	112	4.982	1.395
TM_xiv Supplier A has the ability to improve our time-to-market.	113	5.088	1.373
SS_xvii Supplier A has the ability to provide us with appropriate information.	114	5.842	1.001
SS_xxiv Supplier A performs well when providing us with information.	114	5.675	1.060
SS_xxvii Supplier A provides good service support in general.	114	5.877	.979
KH_viii Supplier A has the ability to assist with new product development.	112	5.482	1.446
KH_ix Supplier A has the ability to drive innovation in products.	110	5.173	1.433

KH_xv Supplier A has the ability to provide general know-how.	113	5.434	1.217
PI_x Supplier A has the ability to give us a feeling of being treated as an important client.	114	5.728	1.131
PI_vi Supplier A has the ability to address problems.	113	5.832	1.017
PI_xxii Supplier A offers good working relationships.	113	5.779	1.041

The questions were divided into three main categories (Eggert, et al., 2006), namely, customer operations, sourcing process and customer operations. Figure 6.1 reveals the means of each of the categories with their sub divisions.

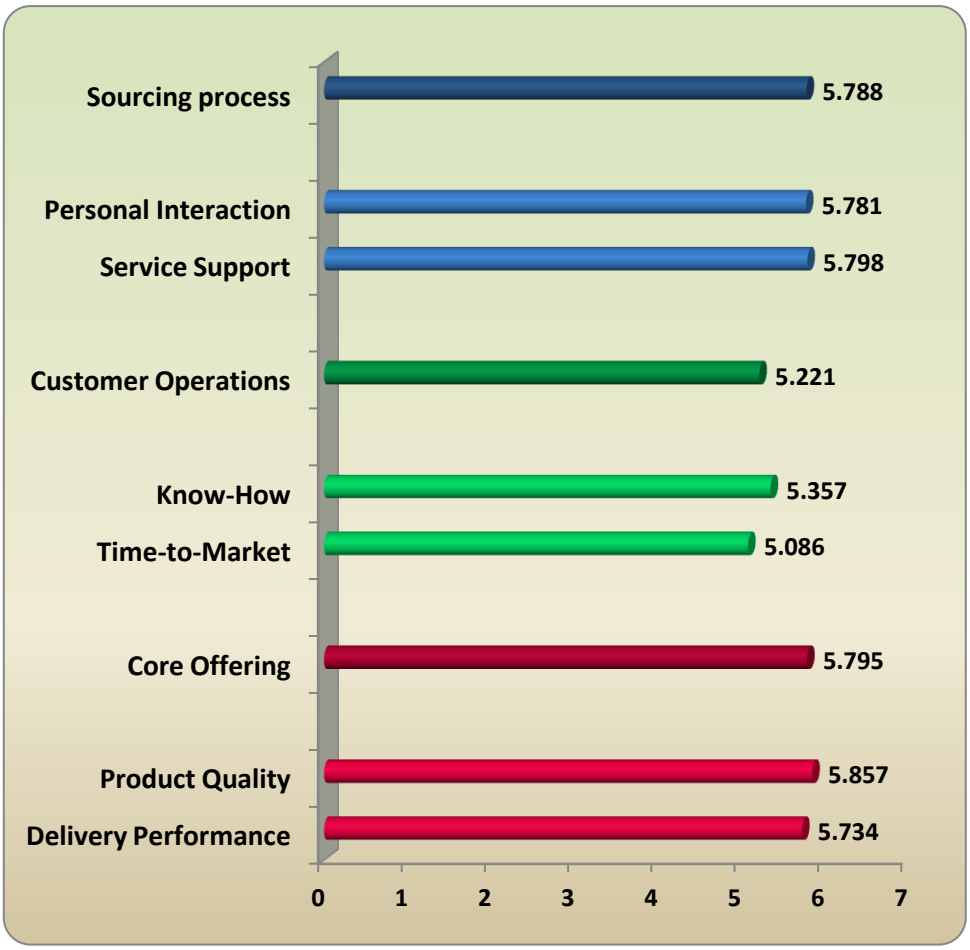


Figure 6.1: Means constructs and dimensions (Author)

According to the feedback received, the majority of respondents felt that the core offering is the most important (mean = 5.795) followed by the sourcing process (mean = 5.788) and finally, the customer operations (mean = 5.221). The high mean score of the core offering (including product quality and delivery performance) is indicative of the high

quality and delivery performance requirements in the automotive supply chain. The sourcing process reveals the importance of service support and personal interaction, while customer operations refer to supplier know-how and time-to-market requirements.

Each of these components (core offering, sourcing process and customer operations) will be discussed in more detail below.

6.3.1 CORE OFFERING

The highest mean score was achieved by the core offering (Figure 6.1). The core offering, according to Ulaga and Eggert (2006), refers to two constructs, namely product quality (mean = 5.857) and delivery performance (mean = 5.734).

Firstly, product quality, as a component of the core offering, refers to the extent to which the supplier's product meets customer expectations. The reliability and consistent quality of the product over time as well as the required technical requirements are of utmost importance. Continuous inputs from suppliers on how to improve the product is also of importance. The high score of the core offering corresponds to the high quality standard requirements of the automotive industry. The automotive supply chain core offering is non-negotiable and leaves no room for error, therefore customers require high quality standards from their suppliers.

Questions regarding product quality enquired about (1) product reliability, (2) ability to secure product quality consistency and (3) minimum product rejects. According to Table 6.2 the item that scored the highest is product reliability (PQ_xxiii mean = 5.904), followed by minimum product rejects (PQ_v mean = 5.868) and quality consistency (PQ_xix mean =5.798) as per Table 6.2.

Secondly, delivery performance refers to: (1) on time delivery, (2) delivery flexibility and (3) delivery accuracy. The consistency of on time delivery is crucial as the automotive industry works with minimum inventory on a just-in-time basis and therefore late deliveries can result in production lines being delayed. Delivery flexibility refers to the spikes in demand or the product mix variants as emergencies sometimes arise and delivery

requirements might change to meet the market demand. Delivery accuracy refers to the ability to deliver the right parts at the right time, therefore minimising missing or wrong parts which results in time, effort and cost savings.

The highest score of delivery performance, according to Table 6.2, was achieved by the ability to meet delivery dates (DP_i mean=5.849) followed by delivery accuracy (DP_xxv mean= 5.737) and then minimal delivery errors (DP_xx mean=5.561) (see Table 6.2).

6.3.2 CUSTOMER OPERATIONS

Customer operations entail know-how and time-to-market. The study revealed that the respondents rated their suppliers' know-how (mean = 5.357) as being more important than time-to-market (mean = 5.086) (Table 6.2)

Firstly, know-how constitutes (1) the ability to provide general know-how, (2) ability to drive innovation on products and (3) ability to assist with new product development. The technical expertise of the supplier is highly valued by the customer, which can often result in improving current products through innovation which will benefit the end customer. The know-how of the supplier can also help improve product development through logical inputs resulting in large cost savings for the customer. Therefore, the value add through know-how that the supplier is bringing to the table is prior production experience, knowledge of the supply chain and early involvement of product development or improvement. The highest score according to Table 6.2 was achieved by the ability to expedite with new product development (KH_viii mean=5.482), followed by the ability to provide general know-how (KH_xv mean= 5.434) and finally, the ability to assist with new product development (KH_ ix mean = 5.173) (see Table 6.2).

Secondly, time-to-market refers to reduced cycle times as suppliers are constantly faced by increasing pressure to develop or manufacture products faster. A shorter time-to-market through inputs from suppliers can result in the prevention of product retesting when developing prototypes which will in return accelerate cycle times. The time-to-market component comprises: (1) the ability to improve time-to-market, (2) ability to help improve the cycle time of activities in the manufacturing process as well as (3) the ability

to help to speed up product development. The highest score, according to Table 6.2 was achieved by the ability to expedite product development (TM_xi mean= 5.205), followed by the ability to improve time-to-market (TM_xiv mean = 5.088), and finally, the ability to help improve the cycle time of activities in the manufacturing process (TM_xiii mean = 4.982) (see Table 6.2).

6.3.3 SOURCING PROCESS

The sourcing process refers to service support as well as personal interaction from the supplier. The sourcing process in the South African automotive industry is a complicated process with constant service interaction with the customer. The benefits of personal relationships in the B2B market are often discussed in the context of the value of relationships, as Ulaga and Eggert (2006: 125) note, interpersonal ties improve problem solving and communication. In general, personal relationships between the supplier and the customer are encouraged as it is much easier to work with a company that fosters positive relationships.

Firstly, personal interaction consists of: (1) good working relationships, (2) the ability to address problems, and (3) the ability to give us a feeling of being treated as an important client. The highest mean score, according to Table 6.2, was achieved for the ability to address problems (PI_ vi mean= 5.832), followed by good working relationships (PI_xxii mean = 5.779), and finally, the ability to give us a feeling of being treated as an important client (PI_x mean = 5.728).

Secondly, service support refers to the ability of the supplier to provide general support regarding the order. Three important aspects regarding service support include: the willingness and speed of the supplier to respond to the customer's concerns, the capacity of the supplier to exchange information with the customer, and finally the ability of the supplier to take responsibility for outsourced activities such as delivering integrated systems (also called modules in the automotive industry as opposed to single parts). The questions regarding service support consists of the following three components namely: (1) provides good service support in general, (2) performs well when providing us with information, and finally (3) ability to provide us with appropriate information.

The highest mean score, according to Table 6.2, was achieved for: provides good service support in general (SS_xxvii mean = 5.877), followed by ability to provide us with appropriate information (SS_xvii mean = 5.842), and finally, performs well when providing us with information (SS_xxiv mean = 5.675) (Table 6.2).

6.4 DESCRIPTIVE FINDINGS – TRUST, COMMITMENT AND RELATIONSHIP VALUE

Three constructs namely, Trust, Commitment and Relationship Value were included in the questionnaire in order to determine their importance within the automotive supply chain. The relation between these three constructs will be simulated in the SEM (to be discussed later in the chapter).

The mean scores of these constructs were higher than 5: Trust (mean = 5.865), relationship value (mean = 5.741), and commitment (mean = 5.670). Thus, no significant deviations were revealed (Table 6.3).

Table 6.3: Trust, Commitment and Relationship Value (Cronbach's Alpha, Mean and Standard Deviation)(Author)

Description	N of Items	Cronbach's Alpha	Mean	Std Dev
Trust	114	0.917	5.8655	.92885
Commitment	113	0.825	5.6696	.99253
Relationship Value	114	0.812	5.7412	.86078

Table 6.4: Means and Standard Deviations: Trust, Commitment and Value (Author)

	Valid N	Mean	Standard Deviation
RV_iv Our organisation gains value from the relationship with Supplier A.	114	5.728	1.033
RV_xxvi When comparing all costs and benefits involved in our relationship with Supplier A, my firm feels that Supplier A creates value for us.	114	5.544	1.122
RV_ixxx The relationship my firm has with supplier A is valuable to us.	113	5.947	.875
TR_ii In our relationship, my firm feels that Supplier A can be counted on to do what is right.	117	5.786	1.024
TR_vii In our relationship with Supplier A, our firm feels that Supplier A can be trusted.	114	5.939	1.007
TR_xii In our relationship, Supplier A demonstrates a high level of integrity.	115	5.800	1.118
CM_xvi The relationship that my firm has with Supplier A is something we are very committed to.	113	5.788	.986
CM_xviii The relationship that my firm has with Supplier A is something my firm intends to maintain indefinitely.	114	5.579	1.432
CM_xxi The relationship that my firm has with Supplier A deserves our firm's maximum effort to maintain it.	113	5.628	.984

Further discussions regarding relationship value, trust and commitment follow in the next section.

6.4.1 COMMITMENT

Commitment refers to "*the relationship …defined as an enduring desire to maintain the valued relationship"* (Moorman, Zaltman & Deshpande, 1992: 316; Morgan & Hunt, 1994: 23; Garbario & Johnson, 1999: 71; Ulaga & Eggert, 2004: 315). Morgan and Hunt (1994: 23) assert that commitment is central to relationship marketing and the exchange theory which results in relationship value.

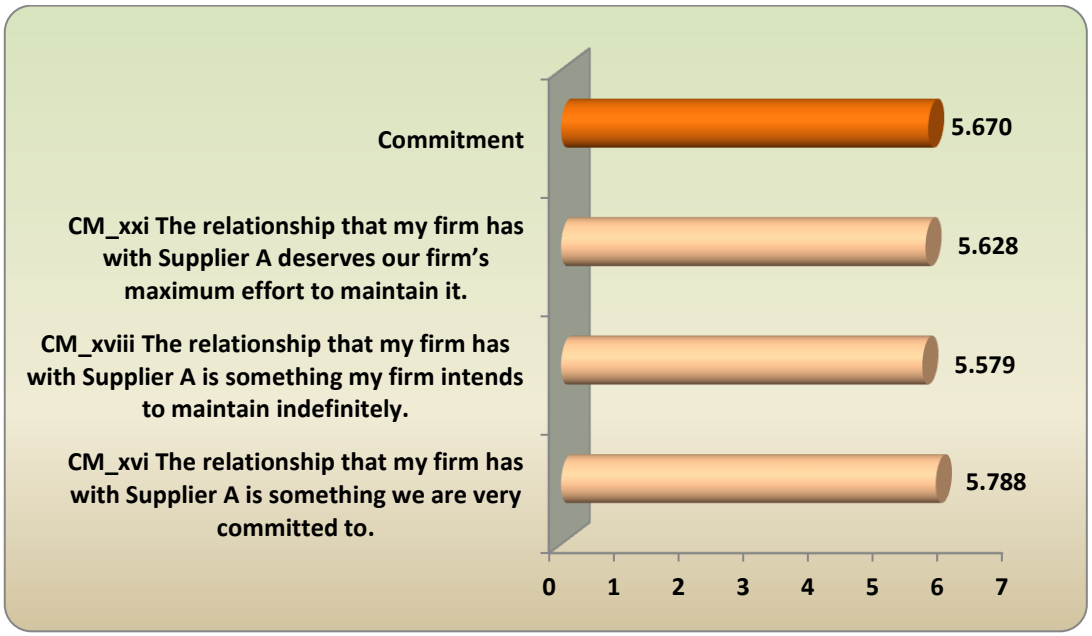


Figure 6.2: Commitment with items and means (Author)

Commitment is represented by the following three questions, namely: (1) the relationship that my firm has with supplier A deserves our firm's maximum effort to maintain it, followed by (2), the relationship that my firm has with supplier A is something my firm intends to maintain indefinitely, as well as (3), the relationship that my firm has with supplier A is something we are very committed to (see Table 6.4 and Figure 6.2).

The highest mean score was achieved by question CM_xvi, namely, the relationship that my firm has with supplier A is something we are very committed to (mean = 5.788), followed by question CM_xxi; the relationship that my firm has with supplier A deserves our firm's maximum effort to maintain it (mean = 5.628) and finally, question CM_xviii; the relationship that my firm has with supplier A is something my firm intends to maintain indefinitely (mean = 5.579).

6.4.2 TRUST

Morgan and Hunt (1994: 24) aver that it is imperative to establish a spirit of trust between supplier and customer in the environment of auto makers.

Trust is defined as "*a willingness to rely on an exchange partner in whom one has confidence*" (Moorman, et al., 1992: 82; Morgan & Hunt, 1994: 23; Garbario & Johnson, 1999: 70; Ulaga & Eggert, 2004: 35). Trust is identified by Morgan and Hunt (1994) as a key mediating construct (Ulaga & Eggert, 2004: 315).

In the literature review, it was determined that trust influences commitment (Morgan & Hunt, 1994: 22; Ulaga & Eggert, 2004: 322).

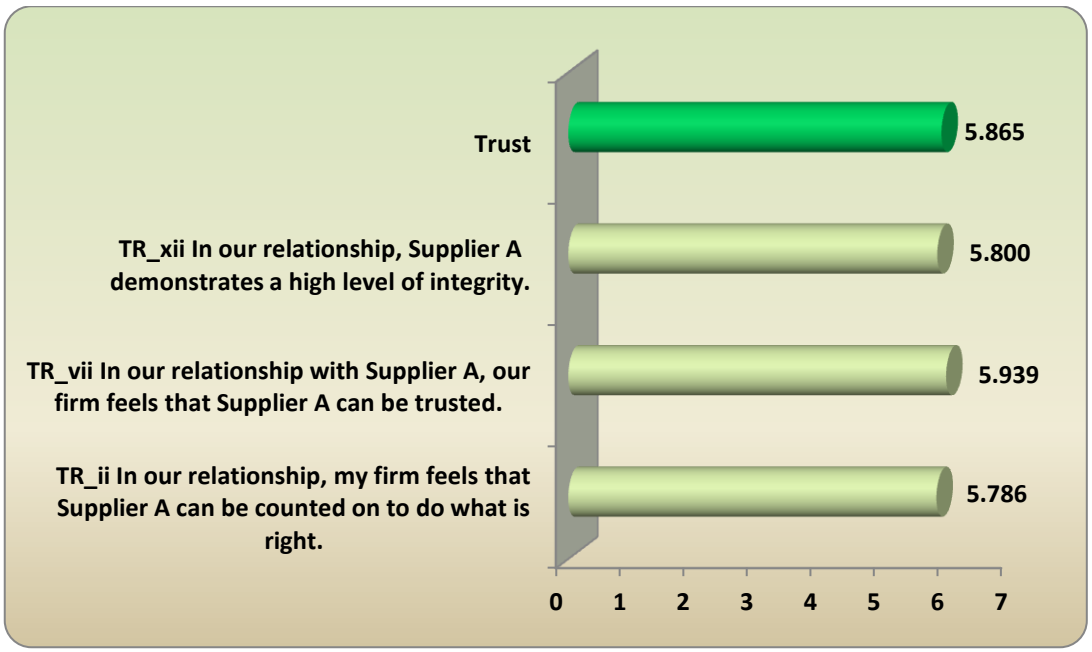


Figure 6.3: Trust with items and means (Author)

The questions relating to trust were: (1) in our relationship, supplier A demonstrates a high level of integrity, (2) in our relationship with supplier A our firm feels that supplier A can be trusted, and finally, (3) in our relationship, my firm feels that supplier A can be counted on to do what is right (Figure 6.3).

The highest score was achieved for question TR_vii; in our relationship with supplier A, our firm feels that supplier A can be trusted (mean = 5.939), followed by question TR_xii; in our relationship, supplier A demonstrates a high level of integrity (mean = 5.800), and finally question TR_ii; in our relationship, my firm feels that supplier A can be counted on to do what is right (mean = 5.786).

6.5 DESCRIPTIVE FINDINGS – BBBEE, MIDP, PRICE

For the purpose of this research, specific South African constructs such as BBBEE and MIDP were included in order to determine their importance in the automotive supply chain. The automotive industry is regarded as a global industry and therefore it is important to determine how important these unique South African constructs will be rated in the supply chain.

Price is an extremely important determinant in the automotive supply chain and although the local Tier 2 supplier does not enjoy much freedom to negotiate price, the construct was nevertheless included in order to determine its importance. Pricing in the automotive supply chain is mainly prescribed by the OEM and the Tier 1 supplier.

These constructs will be discussed in more detail below.

6.5.1 BROAD BASED BLACK ECONOMIC DEVELOPMENT (BBBEE)

The most important social responsibility aspect in South Africa is the BBBEE. In South Africa, the BBBEE Act (Act No. 53 of 2003) was promulgated to ensure that procurement in public and private industries supports the economic empowerment of previously politically disadvantaged individuals. The South African government has introduced a balance scorecard with which BBBEE is measured.

During the current research, respondents were also asked to rate the importance of the BBBEE status of their suppliers. In general, the importance of BBBEE revealed a high mean.

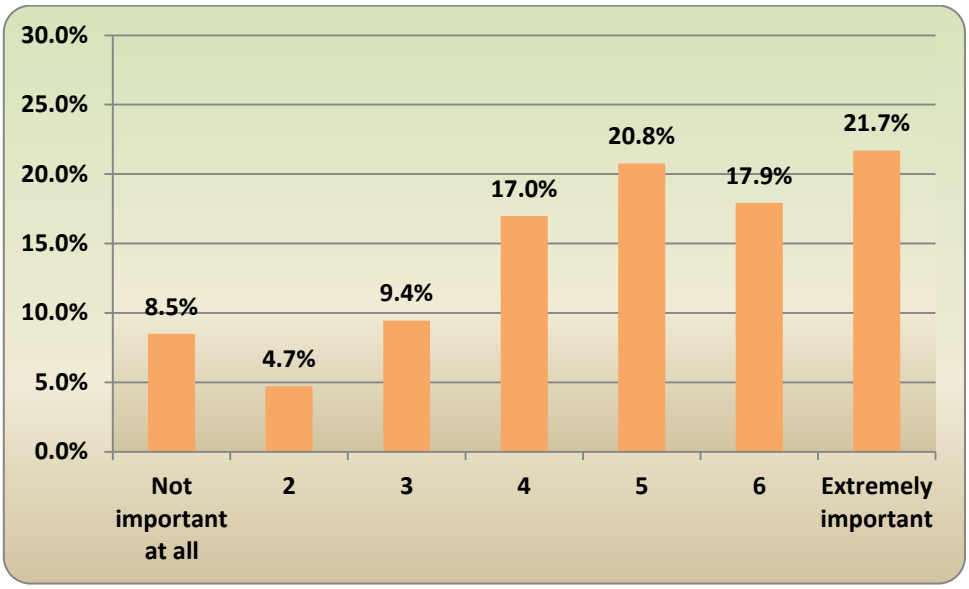


Figure 6.4: Importance of BBBEE status of Suppliers (Author)

Figure 6.4 indicates that more than 60% (*n*=64) of the 106 respondents responded that the BBBEE status of their suppliers is important to extremely important to them. Approximately 17% (*n*=18) of the respondents were indecisive. A very small percentage of 8,5% indicated that BBBEE is not important at all.

The means of the MIDP will be discussed next.

6.5.2 THE MOTOR INDUSTRY DEVELOPMENT PROGRAMME (MIDP)

The MIDP was implemented with effect from 1 September, 1995 in order to reshape the future direction of the South African automotive and associated industries. It took account of the international realities facing the motor industry in South Africa, namely, trade liberalisation, globalisation of markets against the background of rapid technological change, rising customer expectations, and the markets, which were becoming increasingly demanding and fast moving in terms of fashion and trends. The MIDP was established to also entrench the outward orientation of the industry, thereby restructuring it to achieve global competitiveness, whilst at the same time maintaining its employment and output contributions to the South African economy.

Opinion within the industry regarding the MIDP was also tested in order to determine if this would influence relationship value at all.

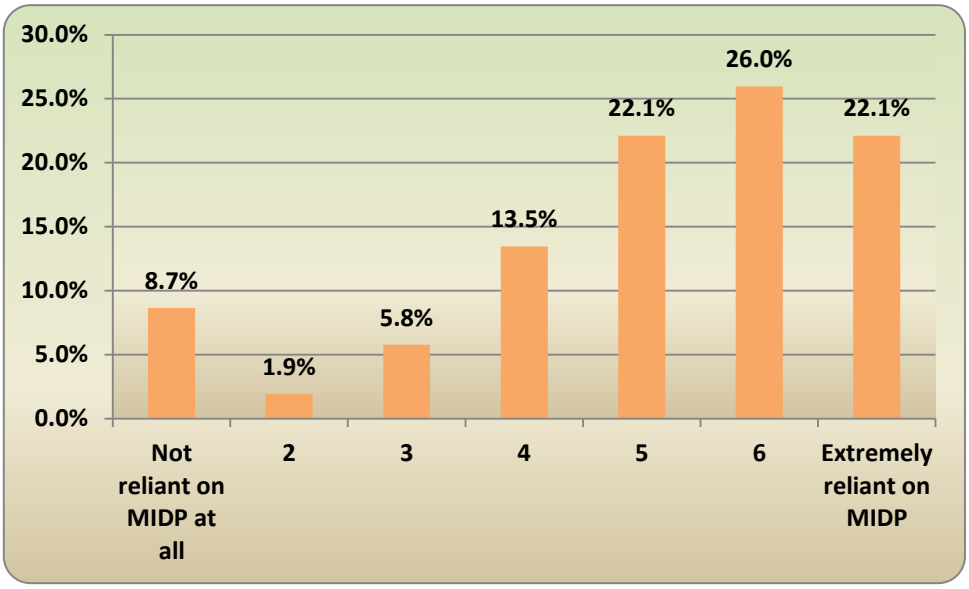


Figure 6.5: Perceived importance of MIDP (Author)

More than 70% (*n*=73) of the 104 respondents indicated that they are reliant to extremely reliant on the MIDP (see Figure 6.5). Approximately 14% (*n*=14) was undecided and almost 9% (*n*=9) indicated that they are not reliant on MIDP at all. Not only Government incentives such as the MIDP were determined but also the importance of component pricing, which will be discussed next.

6.5.3 PRICE

The global automotive industry is a price driven industry with the focus on the lowest cost component supplier which at the same time complies with the required quality standards. As a result, the South African automotive supply chain representatives compete with suppliers from low cost countries such as China, India and Korea. Although price is such an important procurement requirement, it was included in the questionnaire in order to determine how industry representatives rate price in comparison with other constructs. However, it is also found that pricing is prescribed by the OEM and pushed down in the supply chain, leaving very little room for negotiations from Tier 2 suppliers. More information regarding price will be discussed later in this chapter.

6.6 ANALYSIS

As discussed in the chapter covering the methodology of this study (chapter 5), a proposed model was compiled based on the literature review; it depicts the relationship value antecedents and mediators (refer to Figure 5.2 and also see Figure 6.6 with the means from the research findings). As a first step of this research, an exploratory factor analysis was applied in order to determine the value construct factors in the South African automotive component manufacturing industry and to determine whether this corresponds to theory. The purpose of exploratory factor analysis as an interdependence technique is to determine the underlying structure among the variables in the analysis (Hair, et al., 2006: 104; Also see Hair et al., 2010). The factors obtained from EFA were subsequently simulated by means of SEM with the purpose to compile a relationship value model.

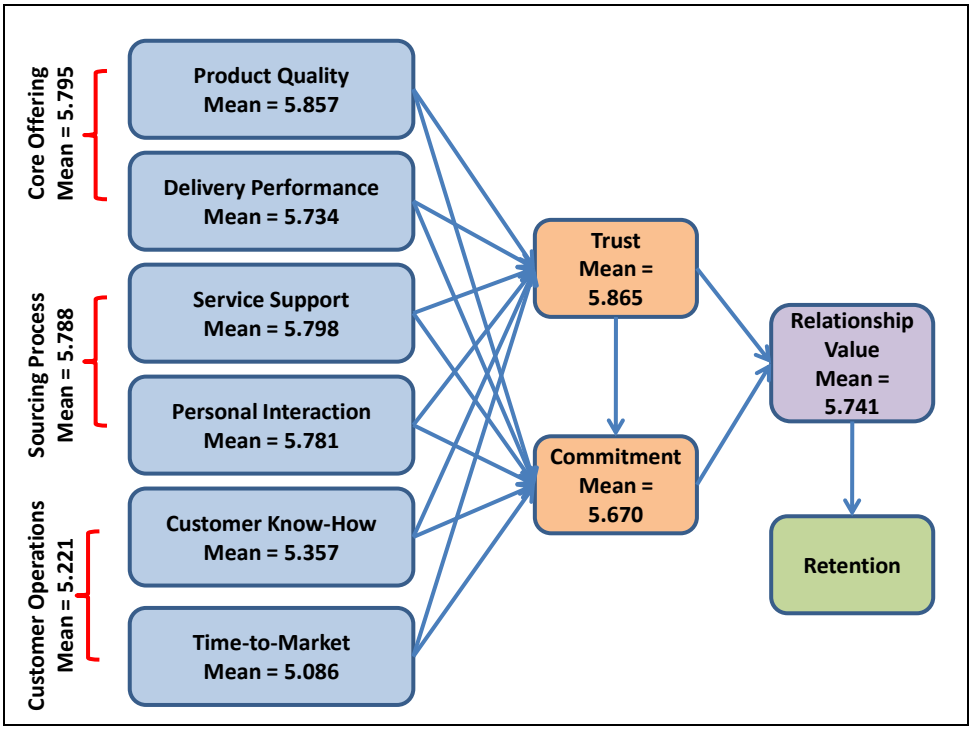


Figure 6.6: Literature Model proposed in the chapter 5 – Methodology with means revealed by current research (Author)

The EFA was applied to items of value constructs identified in the research carried out by Eggert, et al., (2006), namely, Product Quality (PQ), Delivery Process (DP), Product Innovation (PI), Service Support (SS), Know-How (KH), and Time-to-Market (TM). The constructs were divided into 3 main categories, namely, core offering, sourcing process and customer operations (Figure 5.2, Figure 6.6 and Table 6.5).

Table 6.5: Dimensions and Constructs of Research (Author)

Dimension	Construct
Relationship Value, Trust, Commitment	Relationship Value
	Trust
	Commitment
Single Observation Constructs	BBBEE
	Price
	MIDP
	Retention
Core Offering (Value Driver)	Product Quality (PQ)
	Delivery Performance (DP)
Customer Operations (Value Driver)	Know-How (KH)
	Time-to-Market (TM)
Sourcing Process (Value Driver)	Service Support (SS)
	Personal Interaction (PI)

Trust and commitment were also investigated by means of EFA. However, relationship value, trust and commitment were not divided into sub categories, such as the core offering, customer operations and sourcing process as mentioned in Table 6.5. Although not included in the EFA, single observation constructs such as Retention, MIDP, BBBEE and Pricing were also included in the model. After the factors were identified through EFA, they were simulated by the SEM.

In order to eventually reach the SEM, a six step process was followed as discussed in chapter 5; the findings of each step are discussed below (Figure 6.7).

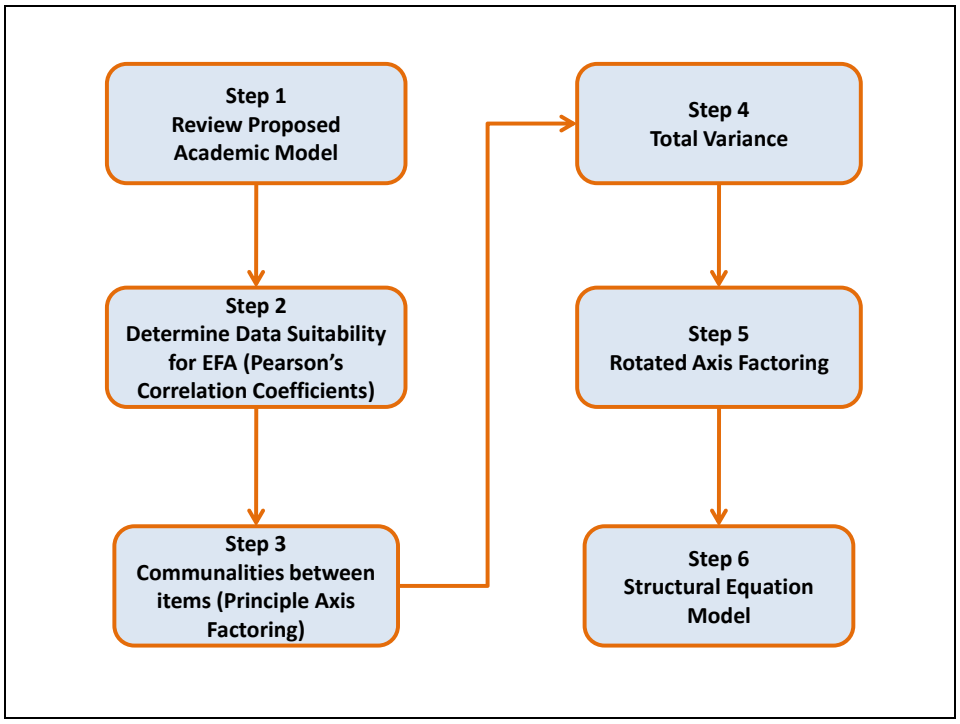


Figure 6.7: Research approach to reach SEM (Author)

6.6.1 STEP 1 – REVIEW PROPOSED ACADEMIC MODEL

As mentioned in chapter 5, the aim of the research was to identify relationship value antecedents as well as possible mediating factors in the South African automotive supply chain. Further to this, it was determined whether relationship value results in business retention. The proposed model (Figure 6.6), as suggested in chapter 5, was tested in order to identify the applicable antecedents and mediators which would eventually result in relationship value and possibly the retention of business.

In the model, core offering constructs (product quality and delivery performance), sourcing process constructs (service support and personal interaction), and customer operation constructs (know-how and time-to-market) were indicated as relationship value antecedents. Trust and commitment were indicated as relationship value mediators with trust relating to commitment. Both trust and commitment constructs relate to relationship value. It was further indicated that relationship value results in business retention.

As part of the research approach, the suitability of data for EFA will be discussed in the next step.

6.6.2 STEP 2 – DETERMINE DATA SUITABILITY FOR EFA

The purpose of this step is to determine the suitability of data for factor analysis. The research variables of interest relating to relationship value antecedents included 18 value related items representing aspects relevant to service delivery. The relationships among the eighteen variables that were measured on a 7-point Likert-type scale to rate the extent to which they agree with statements regarding service delivery from Supplier A, were investigated using Pearson's product-moment correlation coefficient. Preliminary analyses were performed to ensure that there are no violations of the assumptions of normality, linearity and homoscedasticy. Inspection of the correlation matrix (Annexure I; Table 1.1) revealed the presence of many coefficients of 0.3 and above, motivating the suitability for factor analysis. Additionally, the Kaiser-Meyer-Olkin value was 0.898, exceeding the recommended minimum value of 0.6 (Kaiser, 1970; 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, $p<.001$, supporting the factorability of the correlation matrix.

Two of the items, namely SS_xxvii Supplier A provides good service support in general and SS_xxiv Supplier A performs well when providing us with information, were excluded from the final analysis, since they cross-loaded significantly (loading more than 0.5) on more than one factor. Factor loadings of 0.51 and larger were considered significant and used for the interpretation of structure since N=112 (Hair, et al., 2006:128; Also see Hair et al., 2010).

As the data proved to be suitable for factor analysis the next step was to view communalities between items.

6.6.3 STEP 3 – COMMUNALITIES BETWEEN ITEMS

Once significant loadings were identified, the amount of variance was examined in order to determine if the variables meet acceptable levels of explanation. The patterns of correlations measured the extent to which respondents agree with statements made regarding various aspects of the service delivery that they get from their most reliable supplier (Supplier A).

The set of items were subjected to Principle Axis Factoring (PAF) using SPSS18.0 software to extract communalities. It is recommended by Hair, et al., (2006: 131; Also see Hair et al., 2010) that loadings should at least exceed 0.5 to have a significant explanation. The items in this research revealed significant loadings and all exceeded 0.5. All loadings can be reviewed in Table 1.2 in Annexure I.

During this step, all items revealed a substantial loading. The item with the lowest loading was "*Supplier A has the ability to meet delivery dates*" with an internal loading of 0.601 and an extraction loading of 0.5 with the lowest loading as 0.77.

After it was determined that communalities between items revealed satisfactory levels, the next step was to determine total variance which will be discussed in further detail below.

6.6.4 STEP 4 – TOTAL VARIANCE

The scree test, by using eigenvalues, was used to identify the optimum number of extracted factors before the amount of unique variance begins to dominate the common variance structure (Hair, et al., 2006, 120; Also see Hair et al., 2010).

Regarding relationship value antecedent constructs, Table 1.3 in Annexure I indicates that PAF revealed the presence of three components with eigenvalues exceeding 1, cumulatively explaining 60.05% of the variance in the data. This three factor solution did not result in a simple structure (Thurstone, 1947) after rotation. Inspection of the scree plot (Annexure I ; Figure 1.1) revealed an inflection point at the fifth component. Using Cattell's (1966) scree test and since the eigenvalue of the fourth factor is close to 1, it was decided to retain 4 components for further investigation. These 4 factors cumulatively explain 71.90% (Figure 6.6) of the variance in the data; a simple structure was obtained.

In the next step, the rotated axis factoring process was applied to the extracted factors.

6.6.5 STEP 5 – ROTATED AXIS FACTORING

To aid in the interpretation and scientific utility of the four components, the Varimax rotation was performed. Orthogonal rotation was chosen since the analytical procedures for these procedures are better developed than those of oblique rotation. Varimax was specifically chosen since it results in a clearer separation of factors (Hair, et al., 2006, 126; Also see Hair et al., 2010). The rotated solution revealed the presence of a simple structure (Thurstone, 1947), with each of the four components showing a number of strong loadings of more than 0.5 (Annexure I: Table 1.4). Factor loadings of 0.51 and larger were considered significant and used for the interpretation of structure, since N=112 (Hair, et al., 2006, 128; Also see Hair et al., 2010).

Table 6.6: Factors, Standard Deviations and Means (Author)

Questions	Factors				Cronbach's Alpha	Standard Deviation (Individual Items)	Mean (Individual Items)	Mean (Factor)	Standard Deviation (Factor)	N of Items
	Factor 1	Factor 2	Factor 3	Factor 4						
PQ_xix Supplier A has the ability to secure product quality consistency.	.780				0.930	1.122	5.798	5.791	.98834	119
DP_xxv Supplier A provides acceptable delivery accuracy (no missing or wrong parts).	.780					1.153	5.737			
PQ_xxiii Supplier A offers product reliability.	.753					.892	5.904			
DP_xx Supplier A makes minimal delivery errors (late, wrong address, wrong products).	.737					1.255	5.561			
DP_i Supplier A has the ability to meet delivery dates.	.654					1.030	5.849			
PQ_v Supplier A has minimal product rejects (faulty).	.607					1.035	5.868			
PI_vi Supplier A has the ability to address problems.	.590					1.017	5.832			
SS_xvii Supplier A has the ability to provide us with appropriate information.		.745			0.904	1.001	5.842	5.6974	.96823	114
PI_x Supplier A has the ability to give us a feeling of being treated as an important client.		.740				1.131	5.728			
PI_xxii Supplier A offers good working relationships.		.703				1.041	5.779			
KH_xv Supplier A has the ability to provide general know-how.		.588				1.217	5.434			
KH_viii Supplier A has the ability to assist with new product development.			.871		0.888	1.446	5.446	5.2857	1.26859	112
TM_xi Supplier A has the ability to help us speed up product development.			.715			1.357	5.257			
KH_ix Supplier A has the ability to drive innovation in products.			.606			1.433	5.173			
TM_xiii Supplier A has the ability to help us to improve the cycle time of all activities in the manufacturing process.				.758	0.803	1.395	4.982	5.0442	1.27047	113
TM_xiv Supplier A has the ability to improve our time-to-market.				.722		1.373	5.088			
Cumulative percentage variance explained	26.82	44.71	60.05	71.90						

According to Table 6.6 the four factors explain a cumulative 72% of variance in the scale responses. This is comparatively high and a strong support for the four factors. The four extracted factors were identified as:

- product and service support
- relationship quality
- product development support
- improving speed of business.

The factors from the current study differ slightly from the factors identified in the literature (Eggert, et al., 2006). The difference in the relationship between variables regarding relationship value factors from the study undertaken occurred mainly as a result of the research sample of the current study differing from that conducted by Eggert, et al., (2006), owing to the following reasons:

- Firstly, Eggert, et al., focused on the chemical, mechanical and electrical industries (2006: 23) in the USA whilst the current study was very focused on only the Tier 1 component suppliers in the South African automotive supply chain.

- Secondly, the study of Eggert, et al., (2006: 23) focused on a spectrum of industries ranging from small, medium and micro to that of large industries, whilst the current study focused only on large Tier 1 suppliers with the majority of the sample companies having a turnover of R200 million per annum or more.

- Finally, the current researcher interviewed representatives of top management, namely procurement managers, CEOs and technical managers in order to secure a broader and more representative view on relationship value viewpoints, whilst the study conducted by Eggert, et al., (2006: 23) was based on interviews of only procurement managers.

Constructs such as trust, commitment and relationship value were also explored by means of EFA. However, it was decided to treat these constructs individually for the purpose of the literature model, which will be discussed next.

6.6.5.1 Constructs: trust, commitment, relationship value

Trust, commitment and relationship value were evaluated separately from the value constructs discussed above, as no fit was attainable for any of the items; these constructs were not separated into sub categories such as core offering, sourcing process and customer operations.

Trust, commitment and relationship value were also submitted to the 5 steps of EFA as mentioned above. However, according to Annexure J, these three constructs delivered two factors, namely trust and commitment, with relationship value being incorporated in the two factors (refer to table 1.6 in Annexure J). It can be argued that relationship value forms such an integral part of both trust and commitment; hence the reason that only two factors were delivered.

However, for the purpose of this research and the proposed model compiled from literature, it was decided to utilise trust, commitment and relationship value constructs individually as their internal consistency is regarded as very high according to Cronbach's Alpha coefficient, that is, relationship value (α=0.812), Trust (α = 0.917) and commitment (α = 0.825).

Table 6.5: Trust, Commitment and Relationship Value (Cronbach's Alpha, Mean and Standard Deviation)(Author) further reveals that the standard deviations fell in line with each other and the means of all three constructs exceeded 5 with no substantial deviations noted.

The following section reveals all constructs to be simulated through SEM.

6.6.5.2 All constructs

The following 11 constructs in Table 6.7 were identified to be simulated by means of SEM. Seven of the constructs revealed substantially high Cronbach Alpha coefficients and four

direct observations (or single observations) were also included to be simulated by means of SEM.

Table 6.7: Constructs to be simulated through SEM (Author)

Constructs (Factors & Direct Observations/Single Observations)	Description	N of Items	Cronbach's Alpha	Mean	Std Dev
F1	Product Service and Support	119	0.930	5.7491	.98834
F2	Relationship Quality	114	0.904	5.6974	.96823
F3	Product Development Support	112	0.888	5.2857	1.26859
F4	Improving Speed of Business	113	0.803	5.0442	1.27047
F5	Trust	114	0.917	5.8655	.92885
F6	Commitment	113	0.825	5.6696	.99253
F7	Relationship Value	114	0.812	5.7412	.86078
Direct Observation/Single Observation 1	Retention	113	NA	5.6195	1.22707
Direct Observation/Single Observation 2	Price	113	NA	5.1327	1.41108
Direct Observation/Single Observation 3	MIDP	104	NA	5.0481	1.75919
Direct Observation/Single Observation 4	BBBEE	106	NA	4.7736	1.83242

Four value constructs were extracted from EFA and will be simulated as relationship value antecedents:

- product service and support (α= 0.930)
- relationship quality (α = 0.904)
- product development support (α = 0.888)
- improving speed of business (α = 0.803).

Trust, commitment and relationship values were not submitted for EFA, because of the theoretical model and because these were presented as individual constructs with substantially high Cronbach's alpha coefficients; they will be used as three separate constructs.

Relationship value as a construct revealed a high Cronbach Alpha coefficient (α = 0.812) with a mean of 5.7412. Relationship value will also be simulated by means of the SEM.

Finally, four direct observations (or single observations), that is, retention, price, MIDP and BBBEE will also be simulated by the SEM (see Table 6.7). The latter two constructs were identified as being unique South African constructs and their importance in the automotive supply chain will be investigated.

All standard deviations revealed a good fit with no substantial variations.

As an indicative model, the constructs were then correlated with each other by means of a correlation matrix which will be discussed next.

6.6.5.3 Correlation matrix

After exploratory factor analysis was exercised, the factors extracted were then compared to each other by Pearson's correlation matrix with the aim to compile an indicative correlation diagram for the factors.

A diagram (Table 1.7 Annexure J) was derived from the Pearson's Correlation Matrix to depict the correlations between the different constructs. All constructs with an insignificant correlation larger than 0.6 were depicted in the diagram.

A strong correlation is visible in Figure 6.8 between trust (loading = 0.751) and relationship value and commitment (loading = 0.709) and relationship value. It is further evident that, according to theory, a strong correlation between trust and commitment (loading = 0.690) exists. This might be indicative of the fact that trust influences commitment. This strongly corresponds to the theory presented by Morgan and Hunt (1994).

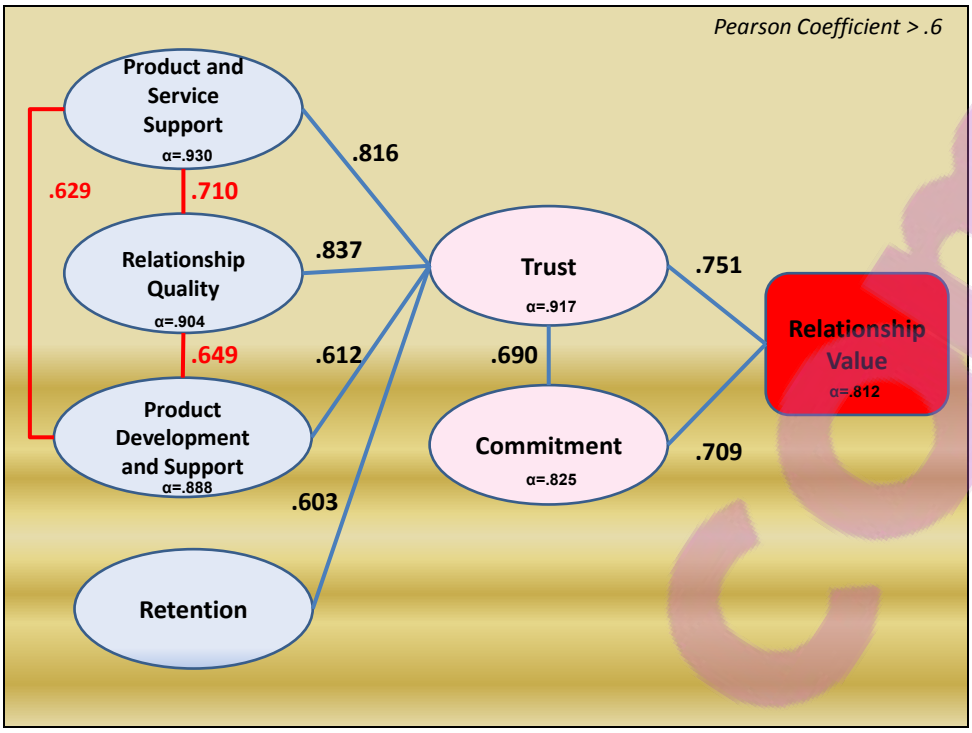


Figure 6.8: Indicative model compiled from correlation matrix (Author)

Strong correlations were further identified between trust and:

- product service and support
- relationship quality
- product development and support
- retention.

It is indicative that trust is a very important construct as the majority of constructs correlate with trust. The strongest correlation was identified between relationship quality and trust (loading = .837) indicating that a good relationship between customer and supplier might influence trust, and vice versa. The second strongest correlation was identified between product and service support, and trust (loading = .816) which indicates that a high quality core product is still required as being extremely important to secure trust and vice versa (Figure 6.8).

The Pearson's correlation model also indicates that strong correlations exist between value constructs such as:

- Product and services support, and relationship quality; which indicates that a core product should be combined with a good working relationship in order to add value.

- Product and service support, and product development and support; which indicates that the core offering should be combined with development support in order to better the product within the supply chain.

- Relationship quality, and product development and support; which indicates that a stable and secure relationship should enhance the development and support process as close co-operation is required between the customer and the supplier to ensure that this process is successful.

As a limited research sample (119 respondents) was received, the number of constructs had to be reduced in order to deliver a reliable model. Constructs that revealed no correlation or weak correlations (loadings < 0.6) were:

- improving speed to market
- product development and support
- BBBEE
- MIDP
- price.

As a result of these weak correlations, the constructs were not simulated in the SEM. This might be indicative of the fact that these constructs do not have a significant influence on relationship value in the automotive supply chain.

The model with the significant loadings was then applied to draw up a SEM which will be discussed in the next section.

6.6.6 STEP 6 – STRUCTURAL EQUATION MODEL (SEM)

A SEM with multiple regressions was simulated using the constructs in Pearson's correlation matrix and the proposed model (Figure 6.8). However, when the model was simulated in the SEM it was too inconclusive, complicated and not stable due to the small response rate combined with too many constructs (refer to Annexure L). The model had to be adjusted in order to provide a more reliable and stable model.

According to theory, the model was then adjusted until it proved to be more stable and reliable (refer to Annexure K). The model in Figure 6.9 reveals the correlation between constructs with their subsequent loadings.

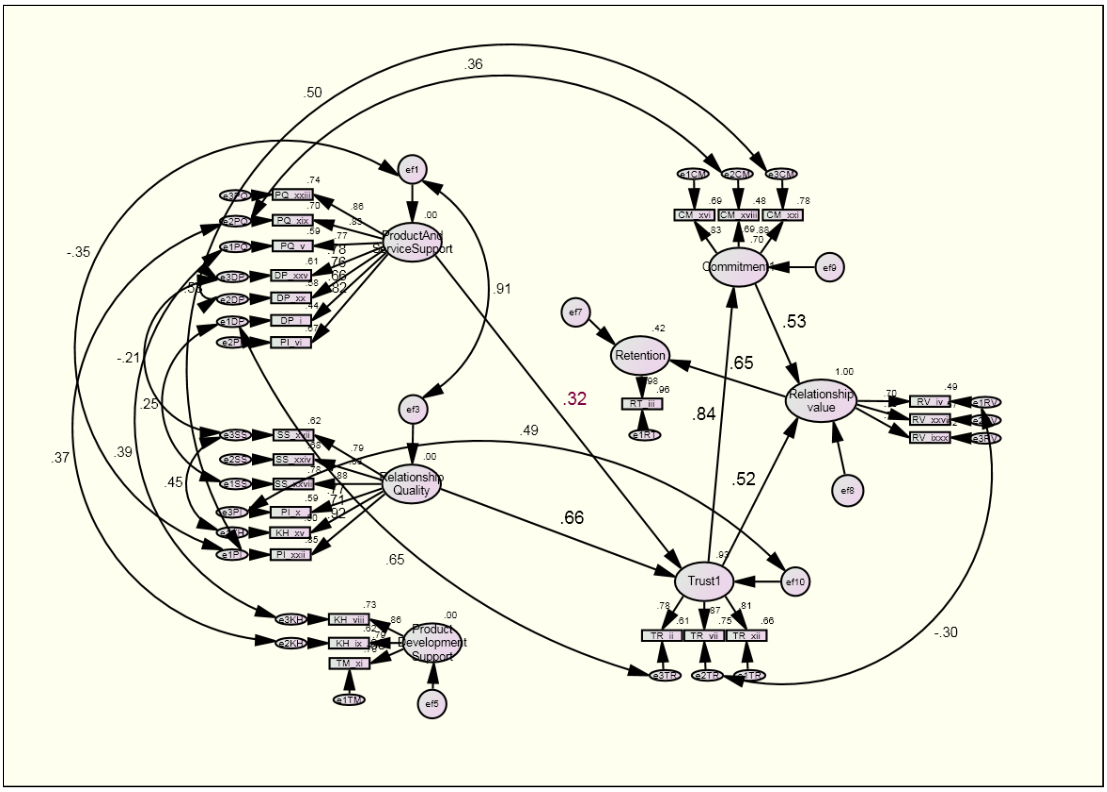


Figure 6.9: Structural Equation Model (Author)

Figure 6.9 was subsequently refined and presented in a user friendly manner (see Figure 6.10) in order to depict the relationship value antecedents, mediators and their correlation with relationship value and retention.

The beta coefficient (β) was utilised to reflect the relative impact on the dependent variable of a change in one standard deviation in either variable (Hair, et al., 2006: 225;

Also see Hair et al., 2010). Therefore, it could be determined which variable exerted the greatest impact.

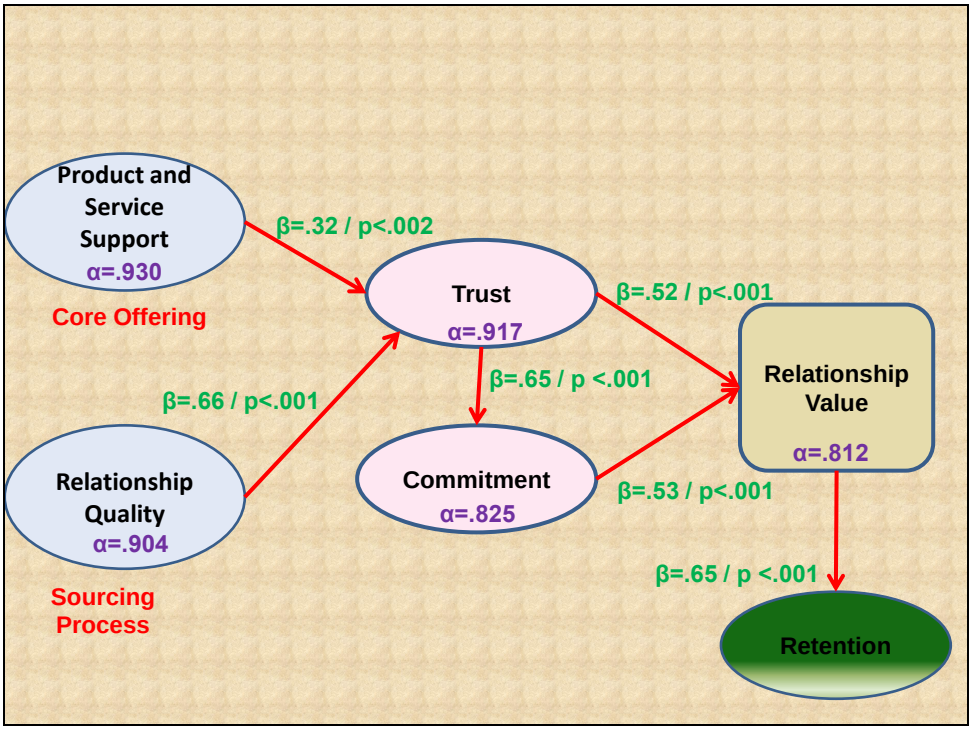


Figure 6.10: Final Structural Equation Model (Author)

The SEM model Figure 6.10 depicts product service and support (Core offering) (β=.32) and relationship quality (sourcing process) (β=.66) as relationship value antecedents. It is interesting to note that relationship quality, which forms part of the sourcing process (Eggert, et al., 2006) scores higher than product service and support which is classified as the core offering (Eggert, et al., 2006). This is indicative of just how important relationship is rated by the Tier 1 suppliers.

Both of these constructs (product service and support, and relationship quality) result in trust. Trust and not commitment was viewed as a relationship mediator. Once again, according to theory (Morgan & Hunt, 1994), Trust influences commitment. Both trust (β=.52) and commitment (β=.53) lead to relationship value (Figure 6.10). Relationship value eventually leads to retention (β=.65) with a very significant loading.

However, some constructs revealed no or very insignificant correlation to other constructs with a Pearson's coefficient of 0.6 or smaller. Product development and support was not included in the SEM owing to a very low loading. Other constructs which did not feature

as well include improving the speed to market, MIDP, price, and BBBEE. These constructs were not included in the SEM; their phenomena will be discussed in the next section.

6.6.6.1 Constructs with weak correlation significance

The two factors, namely, improving the speed to market, and product development and support, did not reveal significant loadings. This indicates a significant deviation from the theory proposed by Eggert, et al., (2006). It was mentioned that the current research differs from other research in the sense that this study focused specifically on the South African automotive supply chain and did not take into consideration any other industry.

Further to this, the constructs with weak significance were; BBBEE, MIDP, and Price (Figure 6.11). BBBEE, price and the MIDP are South African specific constructs, which did not reveal significant loadings and destabilised the model; therefore they were not included in the SEM model. Pricing is mainly prescribed by the OEM and Tier 1 supplier and therefore does not leave the Tier 2 supplier with much room for negotiation.

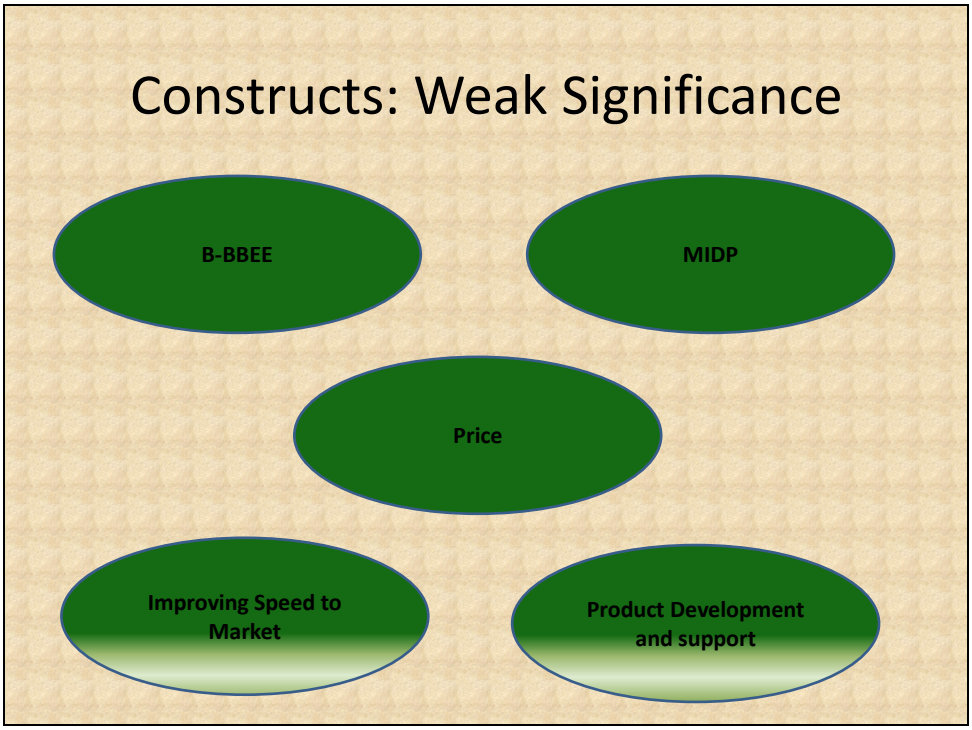


Figure 6.11: Constructs with no significant correlation (Author)

It is important to determine the reliability of the model; therefore the "*goodness of fit*" will be discussed in the next section.

6.7 "GOODNESS OF FIT" OF THE SEM

The "*goodness of fit"* test was undertaken to determine if the observed distribution corresponds to the expected distribution (McDaniel & Gates, 2001: 419).

The following goodness of fit tests were used to substantiate the model

6.7.1 CMIN/DF

CMIN/DF indicates the minimum discrepancy, $\hat{C}$, divided by its degrees of freedom:

$$\frac{\hat{C}}{d}.$$

Several writers have suggested the use of this ratio as a measure of fit. For every estimation criterion except for **UIs** and **SIs**, the ratio should be close to one for correct models. The problem is that it is not clear how far the ratio should be allowed to deviate from one (1) before concluding that a model is unsatisfactory.

"The rule of thumb is that the researcher should also compute a relative chi-square (χ^2/df *). It is recommended that,* χ^2 *to degrees of freedom ratios in the range of 2 to 1 or 3 to 1 are indicative of an 'acceptable fit between the hypothetical model and the sample data'*." (Carmines & McIver, 1981: 80). It is further stated that "*different researchers have recommended using ratios as low as 2 or as high as 5 to indicate a reasonable fit*." (Marsh & Hocevar, 1985).

The CMIN/DF for the model of this research is 1.965.

6.7.2 IFI

Bollen's (Bollen, 1989b) incremental fit index (**IFI**) is given by

$$\mathrm{IFI} = \boldsymbol{\Delta}_2 = \frac{\hat{C}_b - \hat{C}}{\hat{C}_b - d},$$

where $\hat{C}$ and d are the discrepancy and the degrees of freedom for the model being evaluated, and $\hat{C}_b$ and d_b are the discrepancy and the degrees of freedom for the baseline model.

IFI values close to 1 indicate a very good fit. The IFI value of the model from this study was 0.903.

6.7.3 TLI

The Tucker-Lewis coefficient (ρ_2 in the notation of Bollen, 1989b) was discussed by Bentler and Bonett (1980) in the context of analysis of moment structures, also known as the Bentler-Bonett non-normed fit index (NNFI).

$$\mathrm{TLI} = \rho_2 = \frac{\frac{\hat{C}_b}{d_b} - \frac{\hat{C}}{d}}{\frac{\hat{C}_b}{d_b} - 1},$$

where $\hat{C}$ and d are the discrepancy and the degrees of freedom for the model being evaluated, and $\hat{C}_b$ and d_b are the discrepancy and the degrees of freedom from the baseline model.

The typical range for **TLI** lies between zero and one, but is not limited to that range. **TLI** values close to 1 indicate a very good fit. The TLI of the model from this study was 0.886.

6.7.4 RMSEA

F_0 incorporates no penalty for model complexity and will tend to favour models with many parameters. In comparing two nested models, F_0 will never favour the simpler model. Steiger and Lind (1980) sugggested compensating for the effect of model complexity by dividing F_0 by the number of degrees of freedom for testing the model. Taking the square root of the resulting ratio gives the population "root mean square error of approximation", called RMS by Steiger and Lind, and RMSEA by Browne and Cudeck (1993).

$$\text{population RMSEA} = \sqrt{\frac{F_0}{d}}$$

$$\text{estimated RMSEA} = \sqrt{\frac{\hat{F}_0}{d}}$$

The columns labeled **LO 90** and **HI 90** contain the lower and upper limits of a 90% confidence interval for the population value of **RMSEA**. The limits are given by

$$\text{LO 90} = \sqrt{\frac{\delta_L / n}{d}}$$

$$\text{HI 90} = \sqrt{\frac{\delta_U / n}{d}}$$

The rule of thumb is that the value of RMSEA of approximately 0.05 or less is an indication of a close fit of the model in relation to the degrees of freedom (Browne & Cudeck, 1993) The RMSEA for this model was 0.090.

6.7.5 "GOODNESS OF FIT" CONCLUSION

According to the "*Goodness of Fit*" tests, the CMIN/DF, IFI, TLI and RMSEA all revealed satisfactory fits resulting in an acceptable fit for the SEM.

6.8 CONCLUSION

A six step process (Figure 6.7) was followed to compile a SEM depicting relationship value antecedents, mediators and their influence on business retention in the South African automotive supply chain.

It was found that the EFA factors differ slightly from the factors identified in literature. However, the eleven constructs utilised included:

- product service and support
- relationship quality

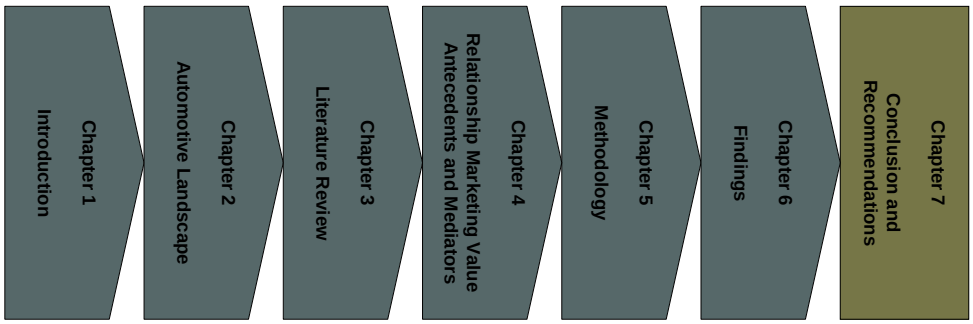
- product development support
- improving speed of business
- trust
- commitment
- relationship value
- retention
- BBBEE.
- price
- MIDP

The factors were subsequently modelled with the Pearson's Correlation Matrix and a simplified proposed model was drawn as an indicative model for the SEM.

According to the model, the relationship value antecedent constructs were identified as product and service support (core offering) as well as relationship quality (sourcing process). Trust was identified as a mediator which relates to commitment; however, commitment did not reveal mediating characteristics but is depicted as being an important relationship value construct. Both trust and commitment relate to relationship value which result in business retention.

The conclusions and recommendations will be discussed in greater detail in the following chapter.

CHAPTER 7 – CONCLUSIONS AND RECOMMENDATIONS



7.1 INTRODUCTION

The purpose of this chapter is to interpret the research findings and determine if the research objectives have been met, namely to depict relationship value antecedents, mediators and outcomes within the South African automotive supply chain by means of a model.

The first step of this research was to undertake EFA (Exploratory Factor Analysis) to determine the relationship value factors. These factors together with unique South African single observations were subsequently simulated by means of a Structural Equation Model (SEM.)

The achievement of the objectives of this study is discussed next.

7.1.1 PRIMARY AND SECONDARY RESEARCH OBJECTIVES

The primary objective of the research as set out in chapter 5 (methodology) was achieved namely to*: "develop a relationship value model for the South African automotive B2B supply chain".*

The SEM compiled from this study proved to be reliable as all constructs revealed a high Cronbach loading. Significant beta loadings were also achieved confirming the reliability of the multi regression SEM (Hair, et al., 2006: 773; Also see Hair et al., 2010).

The secondary objectives (see chapter 5) were also achieved, namely:

- Objective 1: Determine RVM constructs in the relationship between Tier 1 and Tier 2 suppliers.
- Objective 2: Determine how trust and commitment relate to relationship value
- Objective 3: Determine the antecedents for the perception of relationship value by Tier 1 suppliers.
- Objective 4: Determine the relationship between relationship value and business retention.

The objectives and the contribution towards literature will be discussed in the next section.

7.1.2 RELATIONSHIP VALUE MODEL (RVM)

A RVM (Figure 7.1) was compiled from the literature (also see Figure 7.2 (means), and will be compared with the SEM (Figure 7.3) as compiled from this study.

In Figure 7.1, relationship antecedents are depicted according to core offering (product quality and delivery performance), sourcing process (service support and personal interaction) and customer operations (customer know-how and time-to-market) (Eggert, et al., 2006). In this model, according to literature (Morgan & Hunt, 1994), trust and commitment were projected as relationship value mediators leading to relationship value

which in return resulted in business retention. According to theory (Morgan & Hunt, 1994), there was also a strong motivation that trust influences commitment.

The findings regarding correlation of the model compiled (from literature) and the SEM from this study Figure 7.3 and the consequent achievement of primary and secondary research objectives will be discussed next.

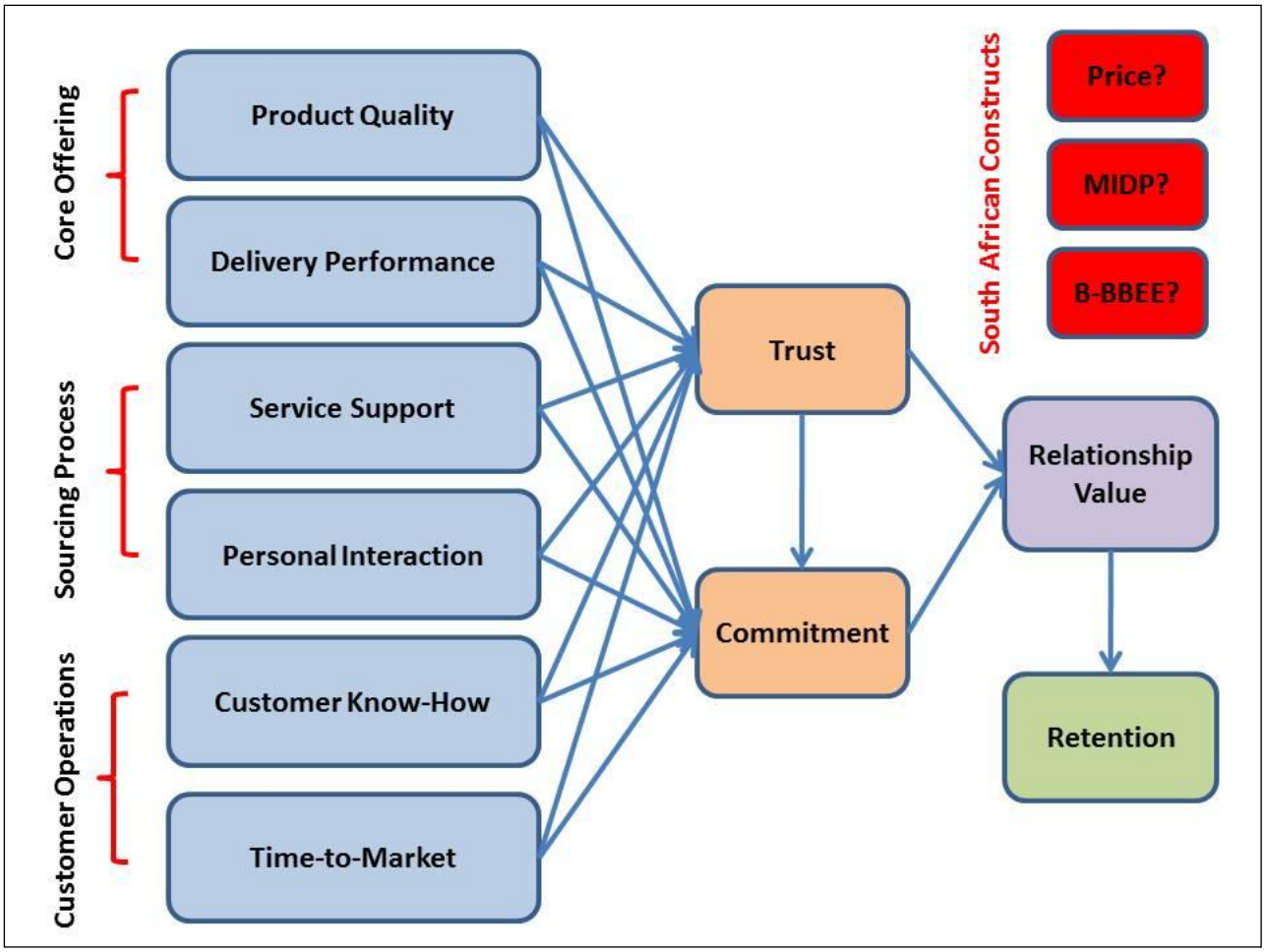


Figure 7.1: Relationship value model determined from literature (Author)

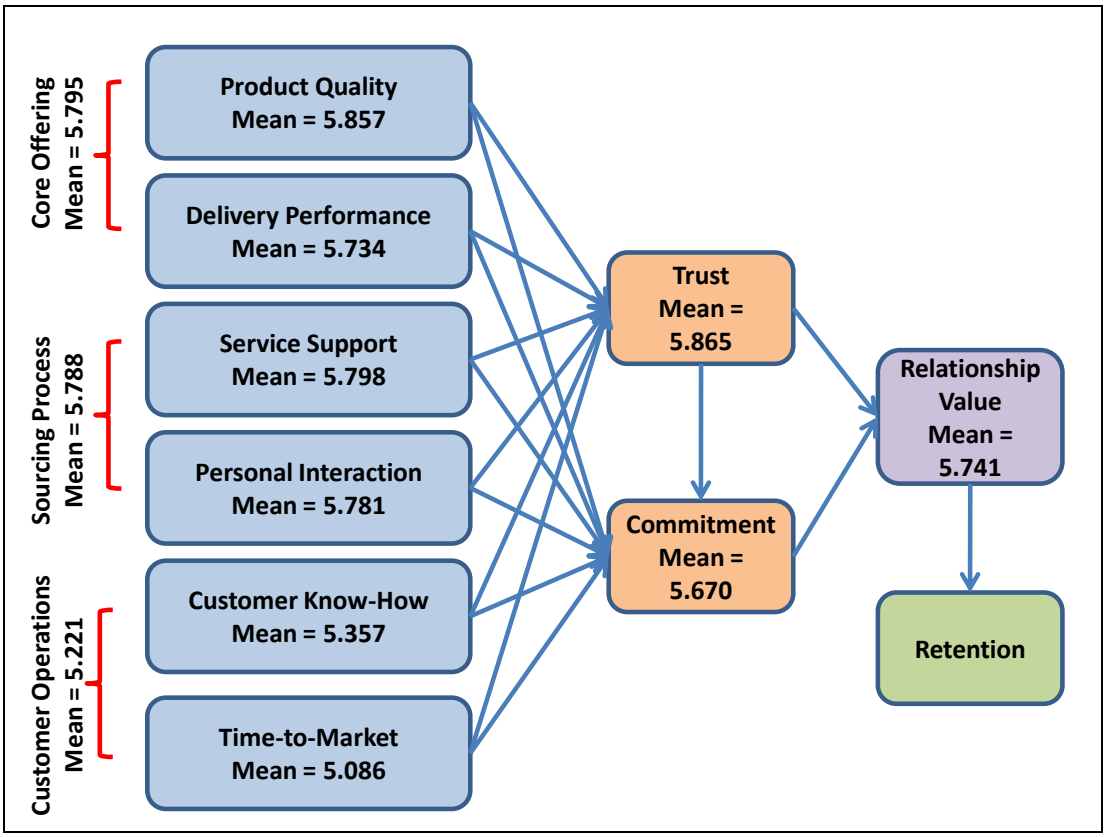


Figure 7.2: Relationship value model determined from literature with means (Author)

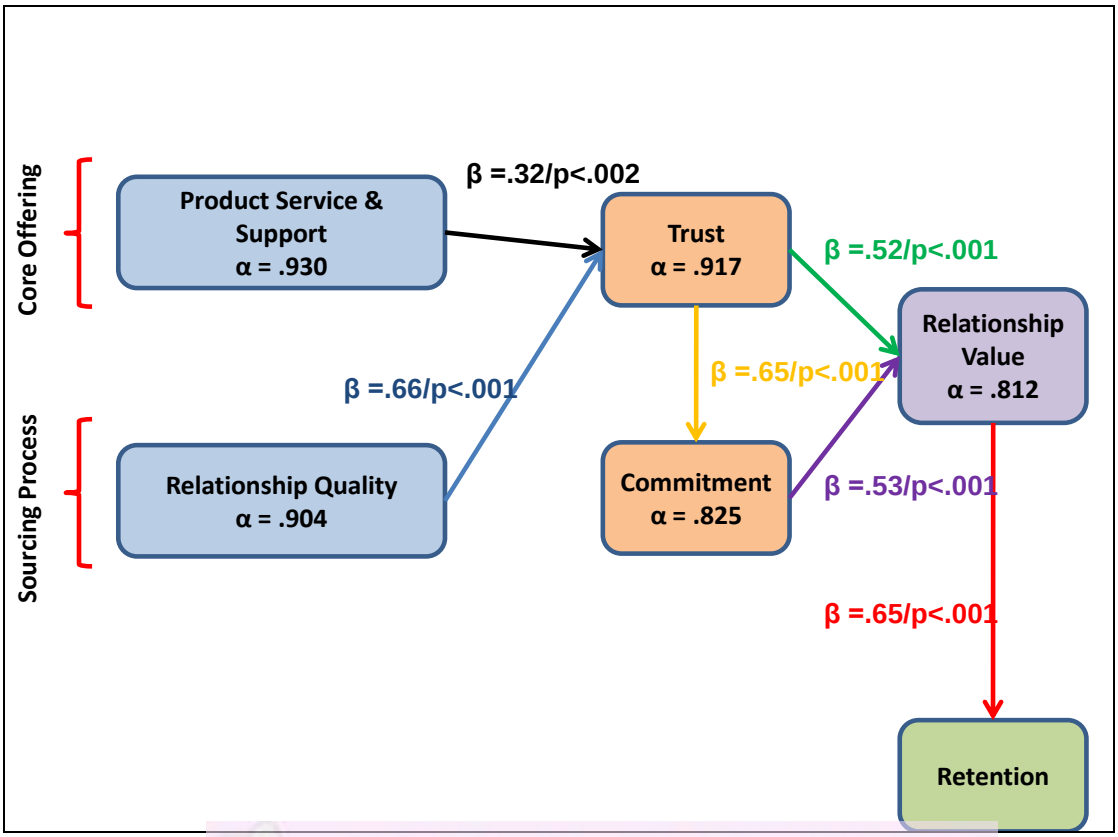


Figure 7.3: RVM (Relationship Value Model) for the South African automotive supply chain (Author)

7.2 PRIMARY RESEARCH OBJECTIVE

This research was exploratory by nature and the primary objective of this was achieved by compiling a SEM for relationship value in the South African automotive supply chain. The SEM compiled from literature (Figure 7.1) was tested in practice, and the research model (Figure 7.3) corresponds to (and differs from) the model compiled from literature.

The secondary research objectives, which also relate to the SEM, will be discussed in the next section.

7.3 SECONDARY RESEARCH OBJECTIVES

Secondary research objectives (as discussed in chapter 3) were met as follows:

7.3.1 OBJECTIVE 1: DETERMINE RVM CONSTRUCTS IN THE RELATIONSHIP BETWEEN TIER 1 AND TIER 2 SUPPLIERS

First, relationship value factors were extracted through EFA after which the relevant factors were simulated by means of a SEM, which revealed the dependence or multiple regressions between relationship value constructs. These factors were extracted for the SEM as relationship value constructs required of Tier 1 suppliers by Tier 2 suppliers. The factors extracted through EFA (as discussed in chapter 6) were:

- Product service and support
- Relationship quality
- Product development support
- Improving speed of business

The single observations taken into consideration for the research were:

- Relationship value
- Retention
- BBBEE

- MIDP
- Price

It was found that the SEM compiled from this study is very much in line with the models proposed by literature even though the current study focused only on the South African automotive supply chain and very specifically on the relationship between Tier 1 and Tier 2 suppliers. However, it was found that some differences do exist, which will be discussed in further detail below.

The constructs product service and support as well as relationship quality are projected as relationship value antecedents (see Figure 7.3). Product service and support (β=.32) as well as relationship quality (β=.66) correlated with trust very strongly. The SEM from this study differed from the model compiled from literature in the sense that all the antecedents in the theoretical model led to commitment as well as trust. However, the SEM compiled from this study has only two antecedents leading directly towards trust (product service and support as well as relationship quality). This was indicative of trust being regarded as a very important construct in the South African automotive supply chain.

According to the model compiled from literature, trust (β=.65) influenced commitment (see Figure 7.1). Commitment (β=.53) as well as trust (β=.52) both lead towards relationship marketing value. However, contrary to theory (Morgan & Hunt, 1994), only trust and not commitment was revealed as a mediator.

Corresponding to theory, the study revealed that there was also a strong correlation between relationship marketing value (β=.65) and business retention. It was therefore confirmed that relationship value led to business retention in the South African automotive supply chain.

Contrary to the model compiled from theory (Figure 7.1), the construct customer operation (inclusive of know-how and time-to-market) was not included in the SEM owing to weak loadings. The weak loading indicated that those specific constructs did not reveal high

significance with regards to relationship value. Consequently, by including them a "*good fit"* for the model could not be found and the model became unstable.

Regarding objective 1, the following contributions are made towards literature:

This research expanded on the recommended future research as set out by Eggert, et al., (2006) and Palmatier, et al., (2006). In terms of the EFA undertaken during this research, the constructs that contributed towards a good *"fit"* for the SEM were identified:

- Product Service and Support
- Relationship Quality
- Trust
- Commitment
- Relationship value
- Retention.

These constructs differ from the relationship value constructs as proposed by Grönroos (1997; 2004) and Sharma, et al., (1999) and discussed in chapter 4.

Managers should take cognisance of the fact that these constructs are viewed as being important in the South African automotive supply chain in order to retain business.

7.3.2 OBJECTIVE 2: DETERMINE HOW TRUST AND COMMITMENT RELATE TO RELATIONSHIP VALUE

Contrary to literature (Morgan & Hunt, 1994), only trust and not commitment revealed strong mediating characteristics. However, it is interesting to note that both trust and commitment correlated strongly with relationship value. Therefore, both variables were revealed as being important relationship value constructs.

Morgan and Hunt (1994) stated that trust directly influences commitment, which has proved to be true in the South African automotive supply chain as a correlation between trust and commitment was revealed. The research also revealed that in the same manner as in the theoretical model, trust influenced commitment with a very strong correlation (β=0.65).

This study strongly suggests that trust and commitment are highly valued in the South African automotive supply chain. Although these constructs might be viewed as "*soft skills*" their importance should not be underestimated. South African organisations operate in a business environment where corruption often prevails. It is therefore encouraging to discover that trust is still viewed as an important relationship value construct, contributing towards ethical behaviour.

Regarding objective 2, the following contribution is made to literature:

Palmatier, et al., (2006) aver that trust and commitment are viewed as mediators, but that further research is required to determine the role of trust and commitment in relation to relationship value. However, this research also contradicts the statement of Hunt, et al., (2006: 77) that trust and commitment are viewed as relationship value antecedents (as dissected in chapter 4).

This study revealed that trust (and not commitment) can be viewed as a relationship value mediator in the South African automotive supply chain, which differs slightly from the findings of Morgan and Hunt (1994) and Palmatier, et al., (2006), who aver that trust and commitment reveal mediating characteristics (see chapter 4). According to literature (Morgan & Hunt, 1994) it was confirmed that trust strongly influences commitment.

In the light of the above findings, it is crucial for managers to note that trust can be applied as a mediating factor to foster successful relationships. Theory strongly indicates that trust can lead towards commitment with both constructs resulting in higher relationship value. Management in the South African automotive supply chain should also take note of the fact that trust is viewed as an important relationship value construct, possibly due to a corrupt South African business environment within which the automotive supply chain

operates. Managers should therefore realise that trust is highly valued by Tier 1 suppliers when operating in the South African automotive industry.

7.3.3 OBJECTIVE 3: DETERMINE THE ANTECEDENTS FOR THE PERCEPTION OF RELATIONSHIP VALUE BY TIER 1 SUPPLIERS

The two key relationship value antecedents were identified as being relationship quality (α = 0.904) and product service and support (α =0.930) (see Figure 7.3). These two constructs indirectly relate to relationship value through trust, which acts as a mediating variable.

Relationship quality entails good working relationships with suppliers where the customer is treated as an important party. Relationship quality (β=0.66) was identified as the most important antecedent with the highest loading of the two antecedents, which directly relates to trust. It is revealing that relationship quality is more highly regarded than product service and support. Therefore, this study reveals that relationship quality is regarded as being extremely important and the Tier 1 supplier requires that the Tier 2 supplier should possess substantial knowledge and information regarding their manufacturing processes as well as the components required in the supply chain. Relationship quality relates to the sourcing process as stated by Eggert and Ulaga (2006) and the importance of an important relationship within the supply chain is emphasised by the SEM. Therefore, this research confirms the statement by Szwejczewski, Lemke, and Goffin, (2005: 875) that the traditional approach to manufacturer-supplier relationships is no longer applicable where the competitive advantage was determined in terms of price.

Product service and support (β=0.32) entails reliability of the supplier by delivering the correct product on time with very little production and delivery error. The constant interaction through positive working relationships should therefore not be underestimated in the South African automotive supply chain. Furthermore, with regard to high quality standards in the automotive supply chain, there is no room for error and therefore this construct is viewed as being crucial. Quality is not an order qualifier resulting in differentiation but rather, should be seen as a requirement in the automotive supply chain. Product service and support relates to the core offering as proposed by Eggert and Ulaga (2006).

In relation to objective 3, the following contribution is made towards literature:

The relationship value antecedents for the SEM of this study were identified as:

- Product Service and Support (core offering)
- Relationship Quality (sourcing process)

Contrary to the research carried out by Eggert, et al., (2006), the current research revealed that product service and support forms part of the core offering and relationship quality forms part of the sourcing process. The most important relationship value antecedent was identified as relationship quality, with a weighting greater than that for product service and support. This finding emphasises the importance of relationships in the South African automotive supply chain.

In the current study, none of the constructs for customer operations revealed any antecedent or mediating significance, as Eggert, et al., (2006) suggested and as discussed in chapter 4 (see also Figure 7.1). The reason for this is the expectation from the customer that supplier operations should operate without default because the automotive supply chain manufactures on a *"just-in-time"* basis. Managers operating within the automotive supply chain should take cognisance of the high value Tier 1 suppliers accord product service support and especially relationship quality as relationship value antecedents.

The findings of this research contribute towards the recommended research as suggested by Morgan and Hunt (1994) as well as Palmatier, et al., (2006) with regards to relationship value antecedents (as discussed in chapter 4).

7.3.4 OBJECTIVE 4: DETERMINE THE RELATIONSHIP BETWEEN RELATIONSHIP VALUE AND BUSINESS RETENTION.

The SEM compiled during the current research, revealed that relationship value (α = 0.812) indicated a strong correlation with business retention (β = 0.65). Retention is of utmost importance in the B2B market and is defined by Jansen van Rensburg (2008: 8) as

"a decision to continue business with a supplier (an action)…that constitutes both cognitive and behavioural actions". Jackson (1985: 2) also expressed that within the industrial market, relationship marketing and the value thereof concerns *"attracting, developing and retaining customer relationships"*. The retention of business is after all the goal of automotive component suppliers in order to secure long term success. The argument supporting retention through relationship marketing value is also supported by Eriksson and Vaghult, 2000; Anderson, et al., 1992; Blankenburg Holm, et al., 1999; and Ulaga and Eggert (2004: 311).

In this study, it was revealed that higher relationship value leads to business retention in the South African automotive supply chain. This research confirmed the notion by Patterson and Spreng (1997: 414) that relationship marketing and the value thereof is particularly important for future repurchase intentions in the B2B industry.

With reference to objective 4, the following contribution is made towards literature:

This research confirms that relationship value can be viewed as a crucial requirement in supply chain management, which leads towards business retention in the South African automotive supply chain. This reiterates research findings by various authors (Palmer & Bejou, 1994; Mudambi, McDowell & Mudambi, 1995; Laitamäki & Kordupleski, 1997; Sharma, et al., 1999; Walters & Lancaster, 1999; Lindgreen, et al., 2000; Yau, et al., 2000; Walter, Ritter & Gemunden, 2001; Ulaga, 2001; Van der Haar, Kemp & Omata, 2001; Hunt & Derozier, 2004; Ulaga & Eggert, 2004; Spiteri & Dion, 2004; Ang & Buttle, 2006; Damkuvienè & Virvilaitè, 2007; Watkins & Hill, 2008) who state that relationship value leads to business retention (refer to Table 4.6 in chapter 4).

A substantial contribution of this study to the literature of Eggert, et al., (2006) and Morgan and Hunt (1994) is that relationship value revealed mediating characteristics between trust and commitment on the one hand and retention on the other (Figure 7.3). This is a unique finding in the South African automotive supply chain.

Various authors such as Lamprecht (2006), Barnes (2000b), Black (2001), and Kaggwa (2008) carried out extensive research on the South African automotive supply chain;

however, research regarding relationship value remains limited (refer to chapter 2). Therefore, this study contributes towards research with regards to relationship value within the South African automotive supply chain.

However, the research also exposed that certain constructs did not reveal significant correlations.

7.4 RELATIONSHIP MARKETING VALUE CONSTRUCTS WITH WEAK SIGNIFICANCE

Single observation constructs such as the MIDP, BBBEE and price were also included in the current research. Although their positions were not indicated in the model derived from literature, it was anticipated that exploratory research would reveal their correlation with relationship value. However, no significant correlations were revealed for the unique South African constructs such as the MIDP and BBBEE.

Possible explanations regarding MIDP and BBBEE are the fact that these two constructs are not global competitive requirements for the automotive supply chain. Since the South African automotive supply chain forms part of the global automotive arena, it is directly influenced by the global requirements. Secondly, BBBEE is a procurement requirement and is not open for negotiation. Therefore BBBEE is a non-differentiating factor in the automotive supply chain.

The MIDP is a government incentive and is not viewed as a competitive requirement from suppliers. In general, Tier 1 and especially Tier 2 suppliers do not benefit from the MIDP. It is usually the OEM that enjoys these benefits and the MIDP was not seen as a significant contributor to the automotive supply chain in relation to competitiveness. "*No benefits. The benefits are taken by the customer - the OEM*" (Refer to Annexure C for the interview with Mr Willem Zorgman).

Price also revealed no significant correlation with any other construct. Price is prescribed to suppliers (by the Tier 1 customers) during the tender process and suppliers are also required to reveal substantial price erosion during the supply life cycle of the contract. As

price was therefore not seen as a competitive negotiation requirement, it was not regarded as an important relationship value construct for the SEM.

Contrary to the theoretical model (Figure 7.1), constructs such as improving speed to market as well as product development support (customer operations) revealed weak correlations. This finding substantially contradicts the theory of Eggert, et al., (2006) that the customer operations (speed to market as well as product development support) are not viewed as major value antecedents in the South African automotive supply chain.

Regarding, Improving Speed to Market; the development and production cycle is strongly prescribed by the OEM and Tier 1 supplier according to a project plan and the Tier 2 supplier is under no circumstances allowed to adjust the timelines in the product manufacturing process. The supply chain also operates according to a Just-in-Time supply basis, leaving no room for error or time negotiations. Hence, the Tier 2 supplier is required to only comply with requirements, which is not viewed as a competitive advantage in the South African automotive supply chain.

Product development and support is related to the supplier because it possesses the ability to provide the necessary input to the customer during product development. All the design and development of automobiles and related components are undertaken at the head office of the OEM. Local design is very limited and is undertaken by the Tier 1 (and not the Tier 2) supplier if required.

According to the SEM (Figure 7.3) the following recommendations are made:

7.5 RECOMMENDATIONS

Specialised marketing is required to build customer relationships (Garbarino & Johnson, 1999: 82) which corroborates the findings of this research that there is a strong indication that relationship value is highly regarded in the South African automotive supply chain. Product quality in the South African automotive supply chain can no longer distinguish suppliers from the competition, as quality requirements are not viewed as contract

differentiators, but rather as contract qualifiers. Therefore managers from automotive component suppliers such as those at the Tier 2 level, should seek new avenues to add benefits to customers and relationship value because these might just provide the competitive edge that could also enhance business retention. International Tier 1 automotive component suppliers require a high level of relationship value from Tier 2 automotive component suppliers who are usually of local descent.

It was mentioned earlier in this study (refer to chapter 2) that a current industry trend is to reduce the number of core suppliers in the B2B market and to foster close relationships with only a few suppliers. In addition to this, the fact that the automotive supply chain is a global industry where OEMs and Tier 1 suppliers have the luxury to source components from anywhere in the world, it is important for local Tier 2 supplier managers to align themselves with competitive value strategies in order to retain business.

Based on the findings of this study the researcher has compiled the following recommendations to Tier 2 suppliers operating in the South African automotive supply chain.

7.5.1 TRUST

It was determined that Tier 1 customers require trust as a key mediator in order to secure a successful long term relationship with their Tier 2 suppliers. Tier 2 supplier managers should pay particular attention to encouraging behaviour that builds trust between them and their customers.

In the global business environment, which is characterised by corruption, trustworthy suppliers are still valued by Tier 1 suppliers. Trust is viewed as being able to place confidence in an exchange partner's reliability and integrity and is seen as a very strong relationship value mediating construct (Figure 7.3). Tier 2 supplier managers should ensure that they act in a trustworthy and compliant manner so that customers (Tier 1 suppliers) see them as a trusted supplier. Therefore, Tier 2 suppliers should provide orders on due date according to the required quality specifications and invoice correctly. Components of inferior quality or supplied late, cause delays in the "*just-in-time*" supply

chain and are costly for the Tier 1 supplier. This often results in conflict, which is detrimental to the relationship between Tier 1 and Tier 2 suppliers. As trust strongly influences commitment, the customer (Tier 1 supplier) will be committed to conduct business with the Tier 2 supplier and therefore this will directly exert a positive influence on the profitability and survival ability of the Tier 2 supplier.

7.5.2 COMMITMENT

Trust (Figure 7.3) results in commitment from the side of the customer which will positively influence the decision of the customer to retain business with the supplier. Barnes (1994: 563) points out that much emphasis is placed on creating bonds such as commitment through long term relationships in the B2B market. In turn, this will lock the customer in and create powerful barriers to an exit (as discussed in chapter 3). According to Barnes (1994, 563), the most successful buyer-seller relationships appear to incorporate commitment in the relationship, which is also supported by Morgan and Hunt (1994). As noted in the previous section, Tier 2 supplier managers should act in a trustworthy manner in order to receive continuous commitment from their customers (Tier 1 suppliers). However, the Tier 2 supplier managers should also reveal commitment from their side towards the customer (Tier 1) in order to foster long term relationships.

7.5.3 RELATIONSHIP VALUE

Relationship value is created with the establishment and the maintenance of a positive ongoing and interdependent relational exchange between the supplier and the customer in order to deliver value for all stakeholders. Relationship value is viewed as a strong mediating construct between trust and commitment with business retention (Figure 7.3).

Therefore, relationship value influences continuous business very strongly, which will lead to higher profitability. Tier 2 supplier managers should ensure that they contribute positively towards relationship value in order to receive continuous business from Tier 1 suppliers. Regular communication and interaction with the Tier 1 supplier (customer) will enable the Tier 2 supplier manager to better understand the requirements set by the Tier 1 suppliers and can therefore react more effectively. The requirements from Tier 1

suppliers are directly influenced by the OEM and are therefore not negotiable for the Tier 2 supplier. Hence, all efforts should be made by the Tier 2 supplier manager to improve their relationships with their Tier 1 customers. As various external forces (global suppliers and the phasing out of the MIDP) threaten the potential for business retention of Tier 2 suppliers, it is crucial for Tier 2 supplier managers to focus strategically on improving their relationship with Tier 1 suppliers.

7.5.4 RELATIONSHIP QUALITY

According to Figure 7.3, relationship quality (sourcing process) was identified as the strongest relationship value antecedent and therefore Tier 2 supplier managers should ensure that their working relationships with customers are good and that customers should be handled in such a way that they feel valued and important. Further to this, the Tier 2 supplier managers should ensure that they gain adequate information and knowledge regarding the manufacturing process in order to enhance the relationship quality. Although research and development is usually not undertaken in South Africa, Tier 2 suppliers can only benefit from research regarding new and improved production methods, which would benefit the supply chain. In return, this would raise their status with regards to the quality of their relationships with the client (Tier 1 supplier) which would lead to business retention.

7.5.5 PRODUCT SERVICE AND SUPPORT

Furthermore, according to the findings, Figure 7.3 depicts that product service and support (core product), formed the second most important relationship value antecedent. Therefore, Tier 2 supplier managers should ensure that their product reliability and delivery performance is acceptable to Tier 1 suppliers. This is no surprise as the product quality is of utmost importance in the global automotive supply chain. Constant interaction through positive working relationships should therefore not be underestimated in the South African automotive supply chain in order to determine the exact component and service requirements from the customer (Tier 1 supplier). It is required that automotive component suppliers comply with strict quality accreditation and therefore local Tier 2 supplier managers should ensure that they are audited frequently and should strive towards continuous quality improvement. It is also crucial that local Tier 2 suppliers stay

abreast with technological developments that can enhance the manufacturing process in order to add greater value.

7.5.6 RETENTION

Business retention is pivotal to the business environment and is enhanced by relationship value, which would lead to reduced sales and marketing costs compared with selling to new customers. Business retention also results in further benefits such as increased purchasing volumes, a growth in customer referrals, a decrease in maintenance and administrative costs and a decrease in customer replacement costs. Furthermore, retained customers are willing to pay higher prices than newly acquired customers and are less likely to receive discounted offers that are often offered in order to acquire new customers. As the current study reveals (Figure 7.3), there was a strong indication that relationship value directly leads to business retention and therefore Tier 2 supplier managers should strategically focus on improving their relationship value towards their customer (Tier 1 supplier) in order to retain business and to circumvent external threats such as global sourcing and the phasing out of the MIDP.

7.6 CLOSING REMARKS

To circumvent the threats relating to the South African supply chain such as the phasing out of the MIDP, the reduction of the number of core suppliers, and the unlimited international sourcing platform, Tier 2 supplier managers in the South African automotive supply chain should pro-actively introduce strategies to cultivate relationship value with Tier 1 customers.

From this study, it is self evident that relationship quality is perceived as being more significant than the actual product in the South African automotive supply chain which demands a high regard for quality in general. Added to this, Tier 2 suppliers should take cognisance of trust being of utmost importance to establish relationship value, which in return results in business retention. With the introduction of sufficient relationship value strategies, Tier 2 suppliers should be enabled to mitigate competition (Lamprecht, Rudansky-Kloppers & Strydom, 2011: 56) based on pricing. Also, with added relationship

value, Tier 2 suppliers could establish themselves in a desirable position in order to retain, and even expand, business prospects in the future.

7.7 LIMITATIONS

Financial constraints limited the research. This study approached only members of NAACAM (National Association of Automobile Component and Allied Manufacturers) as a limited research framework (refer to Annexure F) from the South African automotive supply chain. Not all Tier 1 automotive component suppliers are members of NAACAM. However, the Naacam membership list is the only complete sample frame available for the South African automotive Tier 1 suppliers.

7.8 FUTURE RESEARCH

Researchers are encouraged to focus on the following future research topics:

The respondents for the current research originated from three procurement management departments, namely, the company CEO, technical manager or procurement manager. As the results from the current research focused on the collective response, it would be insightful to analyse different viewpoints on relationship value from each of these groups and to determine how their viewpoints differ (if at all) from each other.

Since the researcher compiled a SEM that focused only on the benefits of relationship value, future research could include relationship value sacrifices such as price, time, effort, energy and conflict (Lapierre, 2000: 125). The current researcher investigated the role of business retention as an outcome of relationship value, while future research could investigate alternative outcomes of relationship value such as expectation of continuity, word of mouth, customer loyalty and cooperation (Palmatier, et al., 2006: 137).

The current study addressed only the viewpoint of Tier 1 suppliers (customer) with regards to that which they require from their best Tier 2 suppliers. It would be interesting to investigate what Tier 2 suppliers require from their Tier 1 suppliers (customers) and

attempt to match the requirements, which might result in better supply chain management. It would also be interesting to filter this study down the supply chain and to determine the relationship value between suppliers lower down.

As mentioned, since the current research focused only on the relationship value between Tier 1 and Tier 2 suppliers in the South African automotive supply chain, a similar study could be undertaken between the OEM (original equipment manufacturer) and the independent aftermarket role players such as automotive dealers (refer to Figure 2.2) in Chapter 2). These two role players comprise different shareholdings, objectives, and values, and are often characterised by conflict.

As a limitation, as mentioned above, the research framework comprised only NAACAM members. However, future researchers could approach research population by contacting all suppliers operating in the South African automotive supply chain.

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ANNEXURE A - SOUTH AFRICAN AUTOMOTIVE LANDSCAPE – COMPARATIVE ADVANTAGES

South Africa is ideally positioned for easy access to the countries of the Southern African Customs Union (SACU) and the Southern African Development Community (SADC), which consist of 14 countries with a total population of 180 million. The country's major strengths include its physical and economic infrastructures, natural mineral and metal resources, a growing manufacturing and services sector and potential to develop a strong tourism industry. Regarded as one of the most diversified exporters in the world, increasing trade liberalization are very significant to the country's growth and future prosperity.

Some of the country's main comparative advantages relevant to the automotive industry include the following (AIEC, 2010:10 – 12)

Infrastructure

South Africa offers one of the best infrastructure and service industries among developing nations, particularly in roads, telecommunication, harbours, banking systems, insurance and shipping. It is able to function as a hub for commercial traffic emanating from and destined for Europe, Asia, the Americas as well as the east and west coasts of Africa. With the biggest rail service, the largest airline and the most developed road infrastructure in Africa, South Africa is also regarded as the gateway into the continent. Infrastructure development is regarded as vital to lowering the cost of doing business in South Africa.

- Spoornet, a division of Transnet, runs the biggest rail service in Africa, over 20 000 km of line. Largely electrified, the network extends into neighbouring countries offering a logistical launch pad into the continent.

- South African Airways (SAA) is the largest airline in Africa and as part of the Star Alliance serves 503 cities and provides maintenance for 47 of the world's major airlines. OR Thambo International Airport is the largest air cargo port in Africa.

- The country's banks dominate the financial services sector in Sub-Saharan Africa, holding the first five positions in regional rankings.

- Leader of information and communication technology development in Africa with a telecommunications network that is 99% digital, and includes the latest in fixed-line, wireless and satellite communication. The GSM cellular phone market is the third fastest growing mobile phone market in the world.

First world production testing

South Africa's unique range of First and Third World vehicle operating conditions coupled with some sophisticated Research and Development resources are now recognized around the world for providing low-cost vehicle testing and development opportunities. Operating conditions include varying and readily accessible climate conditions, altitudes and road surfaces from high-speed circuits, off-tracks, baking deserts to cold mountains. Accelerated durability testing can be carried out at all times of the year, all within easy reach of laboratories and testing services available at some of the lowest prices in the world.

Emerging market cost advantages

South Africa has a mixed First and Third world economy offering cost advantages in many areas. In terms of the cost of living index, South Africa is ranked as one of the most affordable countries in the world. Average labour costs are lower than most developed nations and on par with many developing nations.

Flexible production capability

The South African automotive industry has retained its capability where single production facilities manufacture a range of quality products at competitive prices to satisfy the domestic and export markets. Given this flexibility, South Africa has a unique competitive advantage when it comes to low volumes, such as the case with lower volume vehicles and niche markets or at model run out, compared to other countries where production is set up for long high-production runs.

Raw material availability

South Africa has an abundance of raw material availability and is the world's top ranked producer of platinum, palladium, rhodium, chrome, manganese, vanadium, vermiculite, ferro-chromium and alumino-silicates. In terms of global reserves and production of minerals, the country holds 90% of platinum-group metals, 80% of those of manganese, 73% of chrome, 45% of vanadium and 41% of gold reserves. Only two strategic minerals namely, crude oil and bauxite, are not available in the country. South Africa has a high level of technical expertise, comprehensive research and development activities and boasts world-class primary processing facilities for gold, platinum, carbon steel, stainless steel and aluminium. Platinum group metals, including platinum, rhodium and palladium, are essential elements in the catalytic converter, which makes the country a strategic long term supplier of these products. South Africa currently supplies in the order of 15% of the global demand for catalytic converters. The country is also home to over 70% of the world's chromium, which is an essential ingredient in the stainless steel used to house the catalyst and produce modern auto exhausts. This resource base produces in excess of 50% of the world's ferrochrome and has prompted the development of Columbus Stainless, one of the largest and most modern integrated stainless steel works in the world.

Government support

The Motor Industry Development Programme (MIDP) was implemented with effect from 1 September, 1995 to reshape the future direction of the South African automotive and

associated industries. The MIDP took account of the international realities facing the motor industry in South Africa, namely, trade liberalisation, globalisation of markets against the background of rapid technological change, rising customer expectations and markets which were becoming increasingly demanding and fast moving in terms of fashions and trends. The MIDP was established to entrench the outward orientation of the industry, thereby restructuring it to achieve global competitiveness, whilst at the same time maintaining its employment and output contributions to the South African economy.

The new Automotive Production Development Programme (APDP) (to be introduced in 2013), which aims to double vehicle production to 1,2 million units by 2020, will reflect a quantum leap in terms of processes, technologies and the scale on which the domestic industry currently operates. The APDP will seek to shift the emphasis away from an export focus to one that emphasises scale in the production of vehicles. In addition the programme will be supportive of the development of world-class automotive component manufacturing. The four key elements of the Automotive Production and Development Plan (APDP) include the following:

- Tariffs: Stable, moderate tariffs will remain at 25% for light motor vehicles and 20% for components from 2012 up to 2020.

- Production Assistance: This support will be in the form of duty credits issued to vehicle assemblers based on 20% – 18% of the value of light motor vehicles produced domestically from 2013.

- Value-Add Support: From 2013 this support of 55-50% of value added computed in simple terms as sales less raw materials, in the form of a duty rebate credit, will replace the current export based scheme. Thus the actual benefit will be 55% X value add X applicable duty rate in 2013.

- Investment Assistance: From 2009, this assistance will replace the current Productive Asset Allowance and will be up to 30% of qualifying investment paid over to participants over a three year period.

ANNEXURE B: AUTOMOTIVE COMPONENTS MANUFACTURED IN SOUTH AFRICA

A wide variety of automotive components are manufactured in South Africa, either to support the OEM supply chain of for the purpose of after market supply. The automotive components manufactured in South Africa include (AIEC, 2010: 21):

Abrasives Accessories

Adaptor Plates Air Bags

Air Ducting Air Receivers

Air-conditioning Alternators

Assemblies/pins/bushes Aluminium

Anchor Pins Antennae

Armrests Audio/Navigational/Multi-Media

Automotive Carpets Automotive Fasteners/Fastening Systems

Automotive Wires and Cables (Electrical) Axles

Badges/Chevrons/Emblems/Graphics/3-d Trim Ball Joints

Bearings Bonding Systems

Brackets Brakes

Bullbars Bumpers

Bushbars Bushes – Small End Business Services/Solutions

Cables Cams

Catalytic Converters Clamps

Clutches Coatings – Gears

Coatings – Specialised/Protective Cockpit Assemblies

Coils – Condenser

Connection Rods Consoles

Contact Sets Control Alarms

Corrosion Protection Cotter Tensioners

CV Joints/Components Cylinder Blocks/Heads/Covers

Cylinders Dashboards – Truck

Decoiling Drag Links

Drive Shafts & Components E-Coatings

Specialised Metal Coatings (SMC) Electro-Phoretic Painting

Electronics Engine

Engine Cooling Engineering Services

Exhausts Filters

Filtration Fine Blanked Metal Pressings

Flywheel/Housings/Assemblies Front End Assemblies

Gaskets Gearboxes

Gears General/Specialised Engineering

General/Specialised Engineering – Machining Glass

Glove Boxes Grilles and Grille Guards

Grommets/Plugs Handbrakes

Headrests Harnesses

Heat Exchangers/Casings Heat Shields

Hinges Hooters

HT Wire HVAC Systems

Hydraulic Hose/Fittings Clamps/Pipes/Ducts

J Bolts Jacks – Scissors/Cantilever/Dome

Knuckles Leather/Plastic/Vinyl

Licence Disk Holders Lighting

Linings Loadbins

Lock bolts Locking Mechanisms – Door/Hood/Trunk Lid

Manifolds Marking/Marking Equipment

Mats Metrology – 3D Measurement

Mirrors Motors

Moulded Insulation Components/Panels Mouldings – Body Side/Door Panel/PU

Mud Flaps/Stone Guards Nudge bars

Number Plate Holders/Panels Oil Coolers

Oil Cooling Oil Pressure Switches

Oil Seals Oil/Lubricants

Panels Parcel Shelves/Trays

Pedal Boxes Pipes/Hoses/Pipe Bending/Hose Clamps/Pipe Assemblies Pistons and Piston Assemblies

Plastics Pneumatic Equipment

Powder Coating Specialised Metal Coatings (SMC)

Pressed Metal Parts Ressure Plates

Profiles Propshafts/Propshaft Assemblies/Components

PU Parts – Metal Reinforced Pulleys/Belt Drives/Components

Punching Equipment Radiators

Radio Mounting Components Ratchets

Raw Materials Reflectors

Regulators/Voltage Regulators Rivets/Riveting Tools

Robot Welding Cells Robotic CO2 Welding

Robotics Roll Bars

Rotors Rubber

Safety Belts/Components Sealants

Seats Shackle Pins/Bushes

Shafts – MCVs/HCVs Shock Absorbers/Gas Lifts

Shrouds Side Steps/Rear Steps

Sintered Metal Components Sound Deadeners/Insulators

Spark Plugs/Glow Plugs Speakers/Housings/Trim

Spindles Spline Shafts

Spoilers Springs

Stabilisers/Torsion bars Steering

Stiffener Plats Stone Protection Coatings

Storage and Packaging Structural Body Components

Struts Sun visors

Surface Finishing Suspension Units/Components/Assembly

Tailboards Tension Rods

Thermostats Tie Rods/Tie Rod Ends

Tool and Die Makers Tow bars/Tow Hooks

Towing Accessories Tube Manufacturing

Under shields/Covers Vacuum Formed Products/Assemblies

Valve Guides Valves/Valve Seat Inserts

Vehicle Security Ventilation Systems

Washers Welded Assemblies

Wheels Winches

Window Regulators/Winders Windscreen Washer Bottles

Wipers – Arms/Blades/Linkages Wiring

ANNEXURE C – TRANSCRIPT OF INTERVIEWS

Table 1 (below) is a summary of the interviews. The complete transcript follows on the next page.

Questions:	**N Lamprecht** **Manager** **AIEC** **24 February 2010**	**Mark Walker** **CEO** **Venture Auto** **25 February 2010**	**Anthony Tayler** **Technical Director** **Vacuform** **3 March 2010**	**Willem Zorgman** **Procurement Manager** **ZF Lemförder** **9 March 2010**
1. Briefly explain what problems are experienced with Tier 2 suppliers in the SA automotive supply chain.	Generally uncompetitive. High logistics costs Low volume. Outdated technology. Lack of funding	Communication. Not understanding requirements. Quality Capacity Honesty	Gap between Tier 1 and Tier 2. The relationship between these two is not well defined. Lack of technology Systems not aligned to that of Tier 1.	Money Quality Price
2. What does a good relationship with suppliers entail?	Long term relationship. Reliabilities of supply. Quality. Commitment.	Open relationship, Trust. Sharing problems.	Organised and well defined in terms of production. Capacity Quality Cost Delivery	Must have a good relationship. Discuss problems.
3. What in your opinion can Tier 2 suppliers do to become more competitive?	Upgrade technology. Competitive pricing. Quality Reliability. Absenteeism.	Source materials locally. Do what they say	Invest in similar technology as the Tier 1.	They must receive higher volume orders from Tier 1.
4. What in your opinion can Tier 2 suppliers do to become more competitive in terms of Relationship Marketing?	Join supplier development programmes to have contact with procurement managers	Discuss problems.	Technology.	They are up to standard. However, volumes are hampering Tier 2's

5. Will you be able to identify a high volume product/range supplier in your supply chain (Supplier A)?	Yes	Yes	Yes	Yes
6. How important do you rate the following: **Core offering, Sourcing Process, Customer Operations?**	All important. The product is the most important	Product Price is the most important	Core offering (Product)	The product
7. How important do you rate the following; Commitment and Trust	Important to secure future contracts	Absolutely important	Extremely important. Must also be able to communicate	Trust is the most important
8. What role does BEE play in your relationship with key suppliers?	Increasingly important.	Secondary importance	Crucially important	Forced to comply with BEE
9. What role does the MIDP (Motor Industry Development Programme) play on your organisation - directly or indirectly?	Tier 2's only benefit indirectly	Depends on Tier 2 supplier if they are significant to the Tier 1	There will be no industry without the MIDP	Most important
10. How important is pricing?	Critical. Must be internationally competitive	Most important	Crucially important	Most Important

Dr Norman Lamprecht

Executive manager

AIEC (Automotive Industry Export Council)

24 February 2010

Audio File No 32

Briefly explain what problems are experienced with Tier 2 Suppliers in the South African automotive supply chain.

Alet thank you. The second Tier the suppliers are normally South African owned companies and in general the automotive industry is fairly internationally uncompetitive mainly for reasons of low volumes, logistic costs and so on. So for the second Tier supplier specifically they are still using outdated technology. Obviously they lack funding to upgrade and because of those type reasons they remain uncompetitive there remain a problem with their quality of products.

What does a good relationship with suppliers entail?

A model run for a new vehicle is typically in the order of seven years. So I think it is important in terms of the supply chain is usually entails a long term relationship and all the areas of reliabilities of supply, quality and commitment, those are all issues of relevance that are required to build up a good relationship.

What in your opinion can Tier 2 suppliers do to become more competitive?

I think the timing at this point of time is opportune for these lower Tier suppliers because in terms of the new automotive investment allowance scheme, component companies are also able to access the investment incentive and it is fairly attractive. In the past it was

restricted to vehicle manufacturers and dedicated suppliers. So they will be able now to have access to funding to be able to upgrade and just in terms of international benchmarking, pricing is obviously a big factor and that is a problem because of lower volumes. But reliably of supply, quality, the absenteeism all those issues needs to be addressed in terms of supplier development to become internationally competitive competitive. Because this industry is globally competitive you can afford a weak link in the supply chain.

What in your opinion can Tier 2 suppliers become more competitive in terms of relationship marketing?

Its fairly difficult for small companies, the problem basically is to have access to the purchasing managers of the vehicle manufacturers and that's why there is these kind of programmes in South Africa supplier development, SATEC, the technology board focusing on incubating companies and the component sector association and so on. A lot of the small companies are not necessarily affiliated with the component association, sector association. The moment they have a quality product and they are fairly priced competitive or they are capable of manufacturing something there are avenues for them to market themselves and specifically now with the joint Naamsa, Naacam localisation initiative there should be opportunities for the lower Tier suppliers and specifically in terms of going forward with the new automotive production development programme where you need to add value from as low, from the lower Tier suppliers as low as possible that will assist the companies in terms of their relationship marketing.

In your opinion if a Tier 1 supplier is asked to identify a high volume range supplier. Will the Tier 1 supplier be able to identify. Is that the terminology to use; high volume product or rang?

Yes the companies obviously…., there is a diverse range of products manufactured by the component sector and obviously depends on the specific products. But the problems for the sector is, relates to volumes and sometimes they supply to more than one OEM and all of them have their specific requirements, but in terms of the high volume products just to make to some of the termination in term just of your question. You know companies

should fairly easy identify a high volume product of high volume range in terms of their specific supplier.

If you look of the core offering, sourcing process and customer operations is the one more important than the other or are they equally important?

I would say, you know without any product offering you do not have any foot to stand on. In terms of the sourcing process, that is normally based on a quoting where the vehicle manufacture or the first Tier supplier will identify the product to be sourced. And then its open normally for the lower Tier suppliers to quote on that. Customer operations are obviously important because its long term as I mentioned before. But I think the core offering is basically the main area without that the other will be irrelevant.

How important do you rate commitment and trust? Is it important at all?

I think it is fairly important. Because as I said it is a long term relationship. And commitment basically just for me entails that reliability of supply and consisted quality and focus on cost to ensure that you remain within the target price structure of the first tier supplier and the vehicle manufacturers. And I think trust is built up, and based on trust you are probably in a good position to secure future contracts.

What role does BEE play in supplier relationships if at all?

I think it is important and it is increasingly important. Its part of the legislation, it is not compulsory but companies that have a higher BEE rating will obviously be preferred to others because everybody is conscious about their scorecards rating and the higher the scorecard of the companies that you purchase from the better it impacts on your rating.

Just briefly explain the importance of the MIDP. Do you think Tier 2 suppliers also benefit from the MIDP, directly or indirectly?

I think most of the companies as the lower Tier suppliers, even the first Tier suppliers, only benefit indirectly and simple reason for that is the typically business link is created by the vehicle manufacture in relation to their first Tier suppliers overseas, and because of that the statistics indicate that in the order of 85% of exports take place via the vehicle manufacturers. The component companies that export directly are normally involved in the aftermarket parts, but most companies benefit indirectly but without the MIDP there would probably not be any benefit at all.

How important is component pricing?

That is a key area. But one should still see that in a combination of reliability of supply, quality and price, because there is a diverse range of products and in some cases one of the other factors making part of this equation might be more important for the purchasing manager and vehicle manufacturer but pricing is critically important and that the end of the day impacts on the international competitiveness of the South African automotive industry as a whole.

Mr Mark Walker

CEO

Venture Auto

25 February 2010

Audio File No: 33

Briefly explain what problems are experienced with Tier 2 suppliers or any supplier?

Communication, not understanding what is needed when it is needed, quality, capacity and unfortunately dishonesty.

What does a good relationship with suppliers entail?

Open relationship, trust, sharing problems before they become critical.

What in your opinion can a Tier 2 supplier do to become more competitive?

They need to look at sourcing of materials and components locally. They need to do what they say.

If I ask you a question, identify one of your high volume or high range suppliers, will it make sense to you?

Sure, yes.

If you look at the core offering which is obviously the product, the quality and the performance, and sourcing which is the service and personal interaction or customer operations which is know-how, time-to-market. So core offering, sourcing

process and customer operations. Is the one more important than the other? Are they all important?

Unfortunately in today's world price is the most important. And first you need to qualify a supplier so you need to have the technical knowledge, and the quality and the reliability. After that price drives the decision.

Do you still find that the suppliers are not up to scratch with the quality?

It varies from supplier to suppliers. I think, I will say that eight out of ten suppliers are good in quality and 2 are not.

Constructs like trust and commitment, is it important or not?

Absolutely.

What role does BEE play in your relationship with the suppliers?

BEE is of secondary importance, first you find a supplier who can do the job, the right quality and the right price and the right relationship.

So it might not be important at all?

No. If there are two suppliers which can offer an equal offerings and the one has BEE credentials he will get the job.

The importance of the MIDP, directly or indirectly. Do you think it's got an impact on the Tier 2 suppliers or not?

It depends on the Tier 2 supplier. If the Tier 2 supplier is a very significant supplier to us. it will form a material part of our offering to the automotive company and it becomes important

But if it is no that material, not it is not the important thing.

The importance of pricing. Is it the most important consideration or not necessarily?

I hate to admit it has.

Anthony Tayler

Production Manager

Vacuform

3 Mrt 2010

Audio File No: 35

Briefly explain what problems are experienced with Tier 2 suppliers in the South African Automotive supply chain?

I think it is the areas that have not yet been fully identified that exists between the Tier 2 and a Tier 1 supplier. The relationship between an OEM and the Tier 1 supplier is perfectly defined. All the systems are in place in terms of material releases, in terms of quality agreements, logistics agreements are all very well defined between the OEM and a Tier 1.

However, between the Tier 1 and Tier 2 none of that exists. So you are always in a state of flux. Because very view Tier 1 suppliers manage a Tier 2 supplier properly.

What does a good relationship with suppliers entail?

I think it's got to be an organised relationship. In that it is properly defined with agreements in terms of production, capacity, quality obviously cost and delivery.

What in your opinion can Tier 2 suppliers do to become more competitive in terms of Relationship Marketing?

What do you mean with Relationship marketing? (Anthony Tayler)

To improve the supplier relationship? (Alet Tolmay)

The Tier 2 supplier? (Anthony Tayler)

Yes (Alet Tolmay)

I think probably investing in similar technology to what the Tier 1 supplier will do. As a Tier 1 supplier you are very much regulated and you know you have the systems in place and also you have your relationships in place. As a Tier 2 supplier, it is not always the case. So probably investing in those systems that the Tier 1 supplier would require.

When I am going to do my research, I am going to ask suppliers to identify a high volume range supplier. Would people be familiar with that terminology?

I am sorry repeat again? (Anthony Tayler)

A high volume product supplier? (Alet Tolmay)

Yes.

If you look at the core offering, the sourcing process or the customer operations – that's now the Tier 2. Do you think the one is more important than the other, equally important? Core offering, sourcing process or customer oprations?

Core offering probably, I think.

If you look at trust and commitment, from the supply side, do you think it is important? The soft issues – is it important?

I think it is extremely important. I think a lot of the times where systems are not in place if there isn't a trust and commitment relationship from the supplier, that is the first thing that break down in any agreement, and I think here everybody will tell you that why you didn't tell me that there was a problem . And if you have that trust to be able to tell your Tier 1 to be able to communicate that, it does make a huge difference.

What role does BEE play in your role with key suppliers?

Obviously for us it is key. I think we are one of the few BEE suppliers to the automotive industry. It is something we which we prescribe to whole heartedly in our operation from share holding all the way through to management, social responsibility. So for our organisation it is key and obviously whenever we purchase we do ensure that from a preferential procurement point of view that we do get as higher BEE percentage on that procurement. So I believe it is important, it is important for the growth of the country that the BEE is adhered to.

And the importance of the MIDP?

I don't think there would be an automotive industry in South Africa without the MIDP.

And even the Tier 2's also benefit? Although it is also indirectly? But everybody benefits? (Alet Tolmay)

Everybody benefits because there is an industry. I think we are all fully aware that we are not competitive in South African and that we need the MIDP to bolster that.

The importance of pricing, is it the most important?

Yip. If you haven't got the price right then nothing else matters.

Willem Zorgman

Procurement Manager

ZF Lemförder

9 March 2010

Audio File No: 36

Briefly explain what problems are experienced with Tier 2 suppliers in the South African automotive supply chain?

Money, quality, the price is always an issue to the OEM, it seem that we cannot compete with the imported price especially with China. Then I must say that with a few South African suppliers that the quality is not to standard.

What does a good relationship with suppliers entail for you? Must they have good relationships with you or not?

Of course you must have a good relationship and should be able discuss problem areas like human beings'. I have seen where it is monthly exercises where nothing happens. There should be an openness and frankness.

What in your opinion can Tier 2 suppliers do to become more competitive?

It is not what they must do. We must give them the volumes. You cannot compete with 20 – 30 thousand units against a company in Germany that is making a million. It is impossible, but the OEMs do not understand that. They try and benchmark you against you to those big companies where they got a million vs 20 - 30 thousand units.

What in your opinion can Tier 2 suppliers do to become more competitive in terms of the relationship marketing? Or that relationship to market themselves?

I say from our experience we haven't got a problem about their marketing side. If they really want to join the futility but with smaller volumes they just cannot.

If I in my questionnaire ask you to identify a high volume product. Will you understand the question?

Yes

If I would ask you what is the most important the Core offering meaning the product, the sourcing the logistics , and the customer operations. Is the one more important than the other? Are they equally important? That's the core offering, the sourcing and the customer operations.

What do you mean by core offering? (Willem Zorgman)

The product (Alet).

If I look from our point of view, 80% of our parts come from Germany so the process of the logistics is very important to us. Of course the product should be there, there is no discussion regarding the quality.

The customer operations in terms of their processes? (Alet)

It does not really affect us here.

Do you think trust and commitment is important with your suppliers?

Trust is always.

What role does BEE play in your relationship key suppliers?

We are forced unto it now by our customers.

So if you have two suppliers, one is BEE compliant and the other not. Same product, you will rather source from the BEE? (Alet Tolmay)

You have to.

What role does the MIDP play?

Up to now, nothing. No benefits. The benefits are taken by the customer. The OEM.

How important is pricing?

The important. With most customers more than product.

ANNEXURE D – QUALITATIVE QUESTIONS

Questions:
1. Briefly explain what problems are experienced with Tier 2 suppliers in the SA automotive supply chain.
2. What does a good relationship with suppliers entail?
3. What in your opinion can Tier 2 suppliers do to become more competitive?
4. What in your opinion can Tier 2 suppliers do to become more competitive in terms of Relationship Marketing?
5. Will you be able to identify a high volume product/range supplier in your supply chain (Supplier A)?
6. How important do you rate the following: Core offering, Sourcing Process, Customer Operations?
7. How important do you rate the following; Commitment and Trust
8. What role does BBBEE play in your relationship with key suppliers?
9. What role does the MIDP (Motor Industry Development Programme) play on your organisation - directly or indirectly?
10. How important is pricing?

ANNEXURE E – QUESTIONNAIRE

Section A

SECTION A

For the purposes of this research, please keep in mind that the intent is to measure the performance of your best supplier. Please consider your most reliable supplier (for high volume product range) as SUPPLIER A.

1. Please select a number in the 7-point scale to indicate the extent to which you agree with the following statements regarding Supplier A.

	1 Strongly Disagree	2	3	4	5	6	7 Strongly Agree
i. Supplier A has the ability to meet delivery dates.	○	○	○	○	○	○	○
ii. In our relationship, my firm feels that Supplier A can be counted on to do what is right.	○	○	○	○	○	○	○
iii. My firm expects to expand the business they currently do with Supplier A.	○	○	○	○	○	○	○
iv. Our organisation gains value from the relationship with Supplier A.	○	○	○	○	○	○	○
v. Supplier A has minimal product rejects (faulty).	○	○	○	○	○	○	○
vi. Supplier A has the ability to address problems.	○	○	○	○	○	○	○
vii. In our relationship with Supplier A, our firm feels that Supplier A can be trusted.	○	○	○	○	○	○	○
viii. Supplier A has the ability to assist with new product development.	○	○	○	○	○	○	○
ix. Supplier A has the ability to drive innovation in products.	○	○	○	○	○	○	○
x. Supplier A has the ability to give us a feeling of being treated as an important client.	○	○	○	○	○	○	○
xi. Supplier A has the ability to help us speed up product development.	○	○	○	○	○	○	○
xii. In our relationship, Supplier A demonstrates a high level of integrity.	○	○	○	○	○	○	○
xiii. Supplier A has the ability to help us to improve the cycle time of all activities in the manufacturing process.	○	○	○	○	○	○	○
xiv. Supplier A has the ability to improve our time-to-market.	○	○	○	○	○	○	○
xv. Supplier A has the ability to provide general know-how.	○	○	○	○	○	○	○
xvi. The relationship that my firm has with Supplier A is something we are very committed to.	○	○	○	○	○	○	○
xvii. Supplier A has the ability to provide us with appropriate information.	○	○	○	○	○	○	○
xviii. The relationship that my firm has with Supplier A is something my firm intends to maintain indefinitely.	○	○	○	○	○	○	○

	1 Strongly Disagree	2	3	4	5	6	7 Strongly Agree
xix. Supplier A has the ability to secure product quality consistency.	○	○	○	○	○	○	○
xx. Supplier A makes minimal delivery errors (late, wrong address, wrong products).	○	○	○	○	○	○	○
xxi. The relationship that my firm has with Supplier A deserves our firm's maximum effort to maintain it.	○	○	○	○	○	○	○
xxii. Supplier A offers good working relationships.	○	○	○	○	○	○	○
xxiii. Supplier A offers product reliability.	○	○	○	○	○	○	○
xxiv. Supplier A performs well when providing us with information.	○	○	○	○	○	○	○
xxv. Supplier A provides acceptable delivery accuracy (no missing or wrong parts).	○	○	○	○	○	○	○
xxvi. When comparing all costs and benefits involved in our relationship with Supplier A, my firm feels that Supplier A creates value for us.	○	○	○	○	○	○	○
xxvii. Supplier A provides good service support in general.	○	○	○	○	○	○	○
xxviii. Supplier A provides us with acceptable component pricing.	○	○	○	○	○	○	○
ixxx. The relationship my firm has with supplier A is valuable to us.	○	○	○	○	○	○	○

Questionnaire Scale

Not Important at all								**Extremely Important**

Section B

SECTION B

1. Please select a number in the 7-point scale to indicate how important the BEE status of your high volume product range suppliers are to your organisation.

	1 Not important at all	2	3	4	5	6	7 Extremely important
Importance of BEE status of suppliers.	○	○	○	○	○	○	○

2. Please select a number in the 7-point scale to indicate how reliant, directly or indirectly, your organisation is on the MIDP (Motor Industry Development Programme).

	1 Not reliant on MIDP at all	2	3	4	5	6	7 Extremely reliant on MIDP
Reliance on the MIDP.	○	○	○	○	○	○	○

3. Are you representing a plant/branch OR head office?

○ Plant/Branch	○ Head Office

4. Please indicate your type of plant/branch OR head office (as selected in question 3 of this section).

- ○ Manufacturers and suppliers of OE components to vehicle assembly plants only
- ○ Manufacturers and suppliers of OE as well as P & A and aftermarket/replacement components
- ○ Manufacturers of accessories and replacement parts
- ○ Manufacturers of allied products supplied to vehicle assembly plants and other sectors of the industry e.g. steel, paint, glass, abrasives, fasteners, upholstery, tooling, pallets, packaging, identification/marking
- ○ Suppliers of related/support products to the motor industry

5. What does your plant or company manufacture: (e.g Leather components, pressed parts, electrical wiring, etc.)?

6. Please indicate the shareholding structure of your plant/branch OR head office (as selected in question 3 of this section).

- ○ Local Shareholding
- ○ International Shareholding
- ○ Mixture – Local and International Shareholding

7. Please indicate the approximate annual turnover of your plant/branch OR head office (as selected in question 3 of this section)

- ○ R0 – R5 Million
- ○ >R5 Million – R50 Million
- ○ >R50Million – R200Million
- ○ >R200 Million

8. Please indicate the approximate number of full time employees at your plant/branch or head office (as selected in question 3 of this section).

- ○ 1 - 20 employees
- ○ 21 - 50 employees
- ○ 51 - 200 employees
- ○ >200 employees

9. Please indicate the location of your plant/branch OR head office (as selected in question 3 of this section).

- ○ Gauteng Automotive Cluster (including Brits, GaRankuwa)
- ○ KZN Automotive Cluster
- ○ Eastern Cape Automotive Cluster
- ○ Western Cape automotive Cluster

Section C

SECTION C

1. Please indicate your position in your organisation.

- ○ CEO/Senior Manager
- ○ Technical Manager
- ○ Administrative/ Procurement Manager

2. Personal Information (Optional)

If supplied, this information will not be published; it will only be used by the researcher to track responses or to obtain clarity if the need arises and will also serve as a control to prevent us from sending you the questionnaire again.

Your Name: _____

Company Name: _____

Telephone Number: _____

Email: _____

ANNEXURE F – SAMPLING FRAME

SYMBOL	CLASSIFICATION
A	Manufacturers and suppliers of OE components to vehicle assembly plants only.
B	Manufacturers and suppliers of OE as well as P & A and aftermarket/replacement components.
C	Manufacturers of accessories and replacement parts.
D	Manufacturers of allied products supplied to vehicle assembly plants and other sectors of industry e.g. steel, paint, glass, abrasives, fasteners, upholstery, tooling, pallets, packaging, identification/marking.
E	Suppliers of related/support products to the motor industry.
SP	Service Providers are Associate Members
*	Denotes Founding Member

SYM	COMPANY	CONTACT DETAILS	DESCRIPTION
SP	**ABSA DEBTOR FINANCE**		
	Debtor Finance House	Andreas Luthje, Product Specialist	Provides working capital facilities for high growth
	3 West Street	Cell: +27 0)82 444 2728	businesses through the discounting of domestic
	Houghton, 2198	Tel: +27 (0)11 242 5604	and foreign debtors.
	Johannesburg	Fax: +27 (0)11 728 3920	Employees: 50
	PO Box 11055	e-mail: andreasl@absa.co.za	
	Johannesburg, 2000	Website: www.absa.co.za	
B	**ACOUSTEX (Pty) Ltd**		
	Bennett Street	Jackie Barclay, Managing Director	Manufacturers of automotive sound deadeners,
	Port Elizabeth	e-mail: jackie@acoustex.co.za	insulators, sealants, extruded rubber and PVC
	PO Box 14557	Fred Muller, Company Secretary	components. Moulded carpets, headrests, plastic
	Port Elizabeth, 6061	e-mail: fred@acoustex.co.za	moulded components and tonneau covers.
		Tel: +27 (0)41 407 4138	Exporter: Yes
		Fax: +27 (0)41 451 1494	Employees: 224
			Quality Rating: SABS TS 16949/ISO 14001
D	**AFRICAN HOE (Pty) Ltd**		
	61 Watt Road, New Era	José de Campos, Director	Provides quality forgings in both raw and complete
	Springs	Tel: +27 (0)11 813 4116	machined components to the automotive, industrial
	PO Box 477	Fax: +27 (0)11 813 2678	and mining industries.
	Springs, 1560	e-mail: admin@delmas.co.za	Exporter: Yes
			Employees: 89
			Quality Rating: TUV ISO 9001:2000
B*	**ALFRED TEVES BRAKE SYSTEMS (Pty) Ltd**		
	Kent Road	André Becker, Managing Director	Brake calipers, discs, pads, hoses, drum brakes,
	Boksburg North	Mark Barley, OE Sales Director	brake shoes, wheel and master cylinders.
	Gauteng	Norman Bull, Director	Exporter: Yes
	PO Box 471	Replacement Parts	Employees: 290
	Boksburg, 1460	Tel: +27 (0)11 898 1800	Quality Rating: DIN EN ISO 14001/
		Fax: +27 (0)11 914 3292	ISO TS 16949:2002/DIN EN ISO 9001:2000
		e-mail: marketing@ate.co.za	
		Website: www.ate.co.za	
B	**ALLTUBE (Pty) Ltd**		
	13 Barnsley Road	T.K. Lodemann, Managing Director	Flat aluminium welded tubes for automotive radiators.
	Campsdrift	Tel: +27 (0)33 386 1100	Exporter: Yes
	Pietermaritzburg, 3201	Fax: +27 (0)33 386 1110	Export Enquiries: Theo Lodemann
	PO Box 21905	e-mail: alltube@mweb.co.za	Employees: 70
	Mayorswalk, 3208	Website: www.alltube.co.za	Quality Rating: ISO 9001:2000
B	**ALUMINIUM SQUEEZE CASTERS (Pty) Ltd - *A Division of Pressure Die Castings (Pty) Ltd***		
	6 Willowton Road	Mike Wolhuter, Managing Director	High pressure die caster of automotive
	Willowton	Tel: +27 (0)33 397 5500	aluminium components.
	Pietermaritzburg, 3201	Fax: +27 (0)33 397 5555	Exporter: Yes
	PO Box 4009	e-mail: asc@pdc.co.za	Employees: 30
	Pietermaritzburg, 3200		Quality Rating: ISO/TS 16949:2002
B	**ANROPA - *A Division of Swift Wiper Factory cc***		
	147 Heidelberg Road	Anthea McLardy, Managing Director	Mechanical control cables: clutch, brake,
	City Deep, Johannesburg	Tel: +27 (0)11 334 7410	speedometer, accelerator, bonnet, boot, seat,
	PO Box 260164	Fax: +27 (0)11 334 5839	window winder, push-pull industrial ignition cables.
	Excom, 2023	e-mail: anthea@anropa.co.za	Exporter: Yes
		Website: www.anropa.com	Employees: 60
			Quality Rating: ISO 9001:2000

	ARMSTRONG HYDRAULICS SA (Pty) Ltd - *see Tenneco Ride Control Division*		
B*	**AUGUST LÄPPLE SA (Pty) Ltd**		
	8 Martinus Ras Street	Harald Jung, Technical Director	Sheet metal body panels, chassis, fuel tanks, press
	Rosslyn, Pretoria, 0200	Mike Venter, Technical Executive	tooling.
	PO Box 911-168	Jens Schütte, Commercial Executive	Exporter: Yes
	Rosslyn, 0200	Tel: +27 (0)12 521 2500	Export Enquiries: Norbert Wegner
		Fax: +27 (0)12 541 2228	Employees: 980
		e-mail: jens.schuette@lapple.co.za	Quality Rating: ISO 9002/ISO TS 16949/
			ISO 14001/Q1
B	**AUNDE TAP (Pty) Ltd**		
	51 Morton Road	Siggi Kühn, Managing Director	Automotive textiles.
	Rossburgh	e-mail: siegfried.kuhn@aunde.co.za	Exporter: Yes
	Durban	Christo Roets, Key Account Manager	Export Enquiries: Christo Roets
	PO Box 286	e-mail: christo.roets@aunde.co.za	Employees: 72
	Amanzimtoti, 4125	Tel: +27 (0)31 913 8000	Quality Rating: ISO TS 16949
		Fax: +27 (0)31 913 8338	
B*	**AUTO INDUSTRIAL SPARTAN (Pty) Ltd**		
	107 Fitter Road, Spartan	Andrea Moz, Chief Executive Officer	Axle shafts, brake discs, brake drums, wheel hubs,
	Kempton Park	Tel: +27 (0)11 394 1616	wheel hubs, flywheel assemblies, pulleys, spindles
	Johannesburg, 1620	Fax: +27 (0)11 394 1441	steering knuckles, spline shafts, ball joints.
	PO Box 748	e-mail: andrea.moz@zf.com	Exporter: Yes
	Kempton Park, 1620		Export Enquiries: Eike Krafft
			Employees: 480
			Quality Rating: ISO TS 16949
B	**AUTOLIV SOUTHERN AFRICA (Pty) Ltd**		
	19 Fransen Street	David Kretschmer, Managing Director	Manufacturers of seatbelts and airbags.
	Chamdor	Tel: +27 (0)11 279 2600	Steering wheel assembly.
	Krugersdorp	Fax: +27 (0)11 762 5635	Exporter: No
	PO Box 3058	e-mail:	Employees: 200
	Kenmare, 1745	david.kretschmer@autoliv.com	Quality Rating: ISO TS16949:2002/ISO 9001:2000
		Website: www.autoliv.com	ISO 14001:2004/Q1
A	**AUTOMOTIVE LEATHER COMPANY**		
	Rosslyn Plant &	Francois Barnard,	Manufacturers of automotive leather seating and
	Head Office	Chief Executive Officer	complementary trim components.
	Automotive Supplier Park	e-mail: francois@alc.co.za	Exporter: Yes
	30 Helium Road, Rosslyn	Grant Thorpe, Managing Director	Employees: Approx 700
	PO Box 911-1103	e-mail: grantt@alc.co.za	Quality Rating: ISO TS 16949:2002/
	Rosslyn, 0200	Uhland Müller, Commercial Director	DIN EN ISO 14001:2004/CCC Certification
		e-mail: uhland@alc.co.za	
		Tel: +27 (0)12 564 3200	
		Website: www.alc.co.za	
D	**AUTOMOTIVE TOOLING SYSTEMS (Pty) Ltd**		
	Pretoria - Head Office	Dave Woest, Managing Director	Design and manufacture of BIW jigs and fixtures,
	344 Alwyn Street	Tel: +27 (0)12 803 9646	production tooling, special purpose machinery
	Waltloo Ext 1	Fax: +27 (0)12 803 9649	and press tooling.
	Pretoria	e-mail: dave@autosystems.co.za	Exporter: Yes
	PO Box 912-243	Website: www.autosystems.co.za	Employees: 50
	Silverton, 0127		Quality Rating: ISO 9001:2000

	Port Elizabeth - Branch	Andrew Woest, Manager	
	135 Haupt Street, Sidwell	Tel: +27 (0)41 451 4645	
	Port Elizabeth	Fax: +27 (0)41 451 2725	
	PO Box 14358	e-mail: andrew.autosystems@absamail.co.za	
	Sidwell, 6061		
B	**AUTOVEST LIMITED**		
	164 Springfield Road	E P (Ted) Waldburger, Group Chief	Investment holding company of :
	Morningside	Executive Officer	1. Maxe (Pty) Ltd, manufacturer of OE and aftermarket
	Durban, 4001	Tel: +27 (0)31 208 6242	stainless steel automotive accessories
	PO Box 37139,	Fax: +27 (0)31 208 6014	2. SA Canopy Centre (Pty) Ltd, manufacturer and
	Overport, Durban, 4067	e-mail: tedw@autovest.co.za	distributor of OE approved fibre glass canopies
		Website: www.autovest.co.za	3. Rhino Linings (Pty) Ltd, manufacturer, distributor
			and installer of spray-on polyurethane for truck beds
			and for industrial applications
			4. Kilber Products (Pty) Ltd, manufacturer of exhaust
			systems for busses, trucks and off-road equipment.
			Manufacturer of mild steel bull bars for LCV's and HCV's
			5. Star-Trek Towbars (Pty) Ltd, manufacturer of OE and
			aftermarket fixed and detachable towbars.
D	**AVLOCK INTERNATIONAL (Pty) Ltd**		
	52 Paul Smit Street	William Wooldridge, Managing Director	Fasteners, automotive fastening systems, bonding
	Boksburg North, 1459	e-mail: william@avlock.co.za	systems.
	PO Box 6394	Rob Tomlin, Sales Director	Exporter: Yes
	Dunswart, 1508	e-mail: rob@avlock.co.za	Export Enquiries: Rob Tomlin
		Tel: +27 (0)11 917 2110	Employees: 12 (Auto)
		Fax: +27 (0)11 917 0260	Quality Rating: ISO 9001/ISO TS 16949:2002
B	**BEHR South Africa (Pty) Ltd**		
	Regional Office	Alex Holmes, Customer Centre Director	Manufacture of thermal products and solutions for
	Valley View Industrial Park	e-mail: alex.holmes@za.behrgroup.com	the automotive industry.
	24 Otto Volek Road	Tel: +27 (0)31 719 7600	Exporter: Yes
	New Germany, 3610	Fax: +27 (0)31 705 3710	Employees: 1300
	Private Bag X821	Gavin Simpkins, Managing Director	Export Enquiries: Alex Holmes
	New Germany, 3620		Quality Rating: ISO 9001:2000/ISO TS 16949:
			2002/ISO 14001:2004
B	***Durban Plant (BEHR ENGINE COOLING)***		
	Pinetown	Tel: +27 (0)31 719 7600	
	Valley View Industrial Park		
	24 Otto Volek Road		
	New Germany, 3610		
	Private Bag X821		
	New Germany, 3620		
B	***Port Elizabeth Plant (BEHR CLIMATE CONTROL)***		
	Aloe Industrial Park, Main	Tel: +27 (0)41 408 3400	
	Road, Markman Township		
	Port Elizabeth, 6210		
	PO Box 23206		
	Port Elizabeth, 6000		
BD*	***Pretoria Plant (BEHR ENGINE COOLING)***		
	318 Derdepoort Road	Tel: +27 (0)12 843 8000	

	Silverton, Pretoria, 0184		
	PO Box 54		
	Silverton, 0127		
B	**BEHR HELLA SERVICE**		
	2 Border Road	Willie Fourie, Managing Director	Distributor of spare parts for all makes of vehicles
	Droste Park	e-mail: willie.fourie@za.behrgroup.com	both for engine cooling and air conditioning.
	Benrose, 2094	Tel: +27 (0)11 538 7500	Exporter: No
	PO Box 34162	Fax: +27 (0)11 538 7570	Employees: 120
	Jeppestown, 2043		
B	**BEL-ESSEX ENGINEERING**		
	132 Paterson Road	Dave Coffey, Managing Director	Manufacturers of metal stampings and welded
	Port Elizabeth	Tel: +27 (0)41 484 5312	assemblies.
	PO Box 2298	Fax: +27 (0)41 484 5319	Exporter: Yes
	Port Elizabeth, 6056	e-mail: ddc@beleng.co.za	Employees: 178
		Website: www.belessex.com	Quality Rating: QS 9000/ISO 9001/TS16949
B	**BELL EQUIPMENT Limited**		
	Carbonode Cell, Alton	Donald Paynter, Executive Manager	Manufacture of hydraulic cylinders and axles.
	Richards Bay, 3900	Group Marketing	Assembly of components into material handling
	Private Bag X20046	Tel: +27 (0)35 907 9111	equipment and trucks.
	Empangeni, 3880	Fax: +27 (0)35 797 4323	Exporter: Yes
		e-mail: donaldp@bell.co.za	Export Enquiries: Charlie Kotze (Group)
		Website: www.bellequipment.com	Tel: +27 (0)35 907 9190
			e-mail: charliek@bell.co.za
			Derek Smythe (Asia Pacific, North America)
			Tel: +27 (0)35 907 9176
			e-mail: dereks@bell.co.za
			Employees: 3500 (Worldwide)
			Quality Rating: SABS ISO 9001:2000
D	**BOHLER UDDEHOLM Africa (Pty) Ltd**		
	1 Isando Road	Helmut Ulrich, Managing Director	Tool steel, heat treatment services and plasma
	Isando, 1600	Tel: +27 (0)11 571 2300	nitriding for steel tools, welding machines
	PO Box 539	Fax: +27 (0)11 392 2486	(Fronius) for automotive applications, welding
	Isando, 1600	e-mail: ulrich.h@bohler.co.za	consumables.
		Website: www.bohler-uddeholm.co.za	Exporter: No
			Employees: 190 (47 automotive)
			Quality Rating: ISO 9001:2000 (in progress)
B	**BORBET SA (Pty) Ltd**		
	11 Kohler Road	Wayne McIntosh, Sales Manager	Aluminium alloy road wheels for the OEM market.
	Perseverance	Tel: +27 (0)41 404 1510	Exporter: Yes
	Port Elizabeth, 6001	Fax: +27 (0)41 463 1366	Export Enquiries: Curt Jonas
	PO Box 419	Cell: +27 (0)82 326 3844	Employees: 360
	Port Elizabeth, 6000	e-mail: wdm@borbet.za.net	Quality Rating: TS 16949/ISO 14001/ISO 18001
		Website: www.borbet.de	
B*	**BOSAL AFRIKA (Pty) Ltd**		
	Automotive Division		
	Cnr. Rooibok Ave/Koedoe	N de Waal, Managing Director	Head Office of Group. Exhaust systems, jacks and
	Street, Koedoespoort	Tel: +27 (0)12 391 1000	equipment, towbars, tube products.
	Industrial Sites, Pretoria	Fax: +27 (0)12 333 0659	Exporter: Yes
	PO Box 1652	e-mail: bainfo@bosal.co.za	

	Pretoria, 0001		
	Automotive Division: Sales & Marketing		
	Cnr. Rooibok Ave/Koedoe	J. Strydom, Divisional Manager	Sales, Marketing and Supply Division.
	Street, Koedoespoort	Tel: +27 (0)12 391 1000	
	Industrial Sites, Pretoria	Fax: +27 (0)12 333 9362	
	PO Box 1652	e-mail: sakkies@bosal.co.za	
	Pretoria, 0001		
B	***Plant 1: Exhausts - Aftermarket***		
	Cnr. Rooibok Ave/Koedoe	J. Strydom, Divisional Manager	Exhaust systems for passenger vehicles and LCVs.
	Street, Koedoespoort	Tel: +27 (0)12 391 1000	Manipulated tubular products to customer
	Industrial Sites, Pretoria	Fax: +27 (0)12 333 9362	specification.
	PO Box 1652		Exporter: Yes
	Pretoria, 0001		Employees: 419
			Quality Rating: TS 16949
B	***Plant 3: OE Manufacture***		
	Koedoe Street,	N. de Waal, Managing Director	Mechanical jacks, workshop equipment, tools and
	Koedoespoort Industrial	Tel: +27 (0)12 391 1200	components.
	Sites, Pretoria	Fax: +27 (0)12 333 6147	Exporter: Yes
	PO Box 6621		Employees: 108
	Pretoria, 0001		Quality Rating: TS 16949
B	***Plant 4: Towbars & Exhaust Systems***		
	267 Maggs Street	J. Claassens	Passenger and light commercial towbars,
	Waltloo , Pretoria	Tel: +27 (0)12 810 9362	grille guards, roll bars, sidesteps.
	PO Box 1652	Fax: +27 (0)12 803 5110	Exporter: Yes
	Pretoria, 0001		Employees: 163
			Quality Rating: ISO 9001
BD	***Industrial Division - Plant 9: Tube***		
	293 Zasm Street, Waltloo	M. Van Der Bank, General Manager	Precision steel tubing, tube products, protectors,
	Pretoria	Tel: +27 (0)12 810 9326	Electrical conduit, agricultural irrigation products.
	PO Box 2715	Fax: +27 (0)12 803 5110	Exporter: Yes
	Pretoria, 0001		Employees: 348
	Industrial Division - Plant 9: Tube - Sales & Marketing		
	293 Zasm Street	M. Van Der Bank, General Manager	Sales and marketing division.
	Waltloo, Pretoria	Tel: +27 (0)12 810 9326	
	PO Box 2715	Fax: +27 (0)12 803 5110	
	Pretoria, 0001		
	Plant 10 : Catalytic Converters		
	Steenbok Street	O. Screiber	Manufacture of catalytic converters.
	Koedoespoort, Pretoria	Tel: +27 (0)12 391 1200	Employees: 47
	PO Box 1652	Fax: +27 (0)12 333 6147	Quality Rating: TS 16949
	Pretoria, 0001		
B	***Product Development Centre - Exhaust & Towbars***		
	Cnr. Rooibok Avenue/	D. van der Walt, R&D Director	Research and development centre for exhaust
	Koedoe Street	Tel: +27 (0)12 391 1000	systems, towbars, roll bars and grille guards.
	Koedoespoort Industrial	Fax: +27 (0)12 333 0075	Employees: 14

	Sites, Pretoria		
B	**BRACE ABLE MANUFACTURING CC**		
	1 & 3 Monza Road	Richard Roache, Assistant	Metal pressing and welding assemblies.
	Westmead, Pinetown	Managing Member	Exporter: Yes
	PO Box 15733	e-mail: richardr@braceable.co.za	Employees: 136
	Pinetown, 3605	Tel: +27 (0) 31 7921000	Quality Rating: SABS ISO TS16949 / ISO 14001
		Fax: +27 (0)31 7921004	
		Website: www.braceable.co.za	
B	**C & J SERVICES**		
	490 Sydney Road	John J. Fryer, Managing Director	Engine components, gearbox components, kingpin
	Congella	Tel: +27 (0)31 205 9365	kits, shackle pins and bushes, wheel studs, nuts,
	Durban, 4001	Fax: +27 (0)31 205 8717	washers, cotter tensioners, cam rollers, anchor
	PO Box 17278	e-mail: johnfryer@cjservices.co.za	pins, brake shoe springs, fifth wheel components,
	Congella, 4013	Website: www.cjservices.co.za	truck lamps, pedal pads, licence disc holders,
			reflectors, mirrors, spanners, LED truck lamps,
			Suzi hoses.
			Exporter: Yes
			Export Enquiries: Shaun de la Porte
			Employees: 48
			Quality Rating: ISO 9000:2000
B	**CAPEWELL SPRINGS**		
	6 Techno Crescent	Graham Montgomery,	Metal pressings/stampings, power and constant
	Western Province Park	Managing Director	force springs (spring steel strip), wire springs
	Epping Industria	Tel: +27 (0)21 505 9400	compression, tension and torsion), wire forms,
	Cape Town	Fax: +27 (0)21 535 1047	tool design and manufacture, heat treatment, zinc
	PO Box 593	e-mail:	plating.
	Eppindust, 7475	grahammontgomery@capewell.co.za	Exporter: No
			Export Enquiries: Graham Montgomery
			Employees: 85
			Quality Rating: ISO 9001:2000
E	**CHEP South Africa (Pty) Ltd**		
	131 Jan Hofmeyr Road	Jurie Welman, Chief Executive Officer	CHEP Automotive Services offers tailored
	Westville, Durban	Chris Perumal,	reusable container pooling services.
	PO Box 1053	Executive Manager - Automotive	Tailored service offerings include:
	Wandsbeck, 3631	Tel: +27 (0)11 8424400	- Pooling of standard containers used by
		Fax: +27 (0)11 8785719	Tier One and Tier Two suppliers and
		e-mail: christopher.perumal@chep.com	automotive assemblers
		Website: www.chep.com	- Dedicated container management services
			for a single supplier, specific plant location(s),
			or specific product program
			- Dedicated container management services
			for special containers, program-specific
			containers or product-specific containers
			Exporter: Yes
			Employees: 12
C	**COMPOUND TECHNOLOGY t/a SAFELINE**		
	14 Copperhouse Road	Otto Muller, Managing Director	Manufacturers of brake pads.
	Nooitgedacht, Roodepoort	Tel: +27 (0)11 549 7300	Exporter: Yes
	PO Box 1559	Fax: +27 (0)11 549 7400	Employees: 120
	Roosevelt Park, 2129	Cell: +27 (0)83 375 0270	Quality Rating: BS EN ISO TS 16949:2002/

		e-mail: otto@hispc.co.za	BS EN ISO IS 9001:2000
		Website: www.safelinebrakes.com	
B	**CONTROL INSTRUMENTS AUTOMOTIVE (Pty) Ltd *(formerly Dana SA /Gabriel SA)***		
	59 Merino Avenue	Grant Fraser, Marketing Director	Gabriel shock absorbers, struts and gas lifts,
	City Deep, Johannesburg	e-mail: grant.fraser@ci-automotive.com	ContiTech cam belts, Eurocable ignition leads,
	PO Box 86222	Gerhard de Clerk, Finance	Electrical components, brake components, industrial
	City Deep, 2049	Roy Hollins, Sales Director	products, ignition components, fuel components,
		Anca Priscu, Business Development	switches and lighting, cooling components, cables
	Trading Divisions:	Tel: +27 (0)11 627 2500	and terminals, WARN off road products, steering &
	Gabriel Division	Fax: +27 (0)11 613 1321	suspension products, workshop equipment,
	Echlin Distributing	Website: www.ci-automotive.com	emergency lighting equipment, VDO Automotive,
	ACSA-MAG Trading		VDO Commercial, VDO Marine, VDO-Dayton
	VDO Automotive		(audio & navigation) Shurlok security systems,
	VDO Commercial		Bluetooth accessories.
	VDO Marine		Exporter: Yes
	In-car Multimedia (VDO-Dayton)		Export Enquiries: Grant Fraser
	Shurlok Security & Accessories		***Africa Export:*** Terry Savage
	WARN & Outdoor Accessories		***Off-shore Exports:*** Anca Priscu
	CONTROL INSTRUMENTS SHURLOK (Pty) Ltd - *see Pi SHURLOK (Pty) Ltd*		
BD	**CREATIVE GRAPHICS INTERNATIONAL**		
	Automotive Division	G. Kingdom, Managing Director	Functional and decorative decals, graphics, badges
	15 Clifford Street	e-mail: gkingdom@cgi-visual.com	and emblems.
	Ottery, Cape Town, 7800	Tel: +27 (0)21 710 7500	Exporter: Yes
	PO Box 45560	Fax: +27 (0)21 710 7550	Export Enquiries: Gary Delcarme
	Ottery, 7808	Website: www.cgi-visual.com	e-mail: gdelcarme@cgi-visual.com
			Employees: 200
			Quality Rating: ISO 9001/ISO 14001/OS 9000/
			VDA 6.1/Ford Q1/TS 16949
SP	**DELOITTE South Africa**		
	Deloitte Place	Annelise Warrington, Senior Manager	Deloitte provides professional sevices and advice
	The Woodlands	Tel: +27(0)11 806 5736/ 5000	in the private and public sector within five strategic
	20 Woodlands Drive	Fax: +27 (0)11 388 1431	service areas: audit, tax, consulting, financial advisory
	Woodmead, Sandton	e-mail: awarrington@deloitte.co.za	and corporate finance services. In association with
		Website: www.deloitte.co.za	our global firms, Deloitte assists automotive companies
			execute initiatives in production, technology, tax and
			risk management, and other areas to help you to
			achieve corporates timeless objectives: profitability,
			growth and productivity.
			Employees: 3500 in South Africa, 180 (automotive)
B	**DIART MANUFACTURING *(Retfin 265 (Pty) Ltd t/a)***		
	16 Derrick Road, Spartan	Roy Patterson, Director	Suppliers of catalytic converter parts,
	Kempton Park, 1619	Tel: +27 (0)11 394 6761	automotive pressings, pole pieces, fans, pulleys,
	PO Box 1119	Fax: +27 (0)11 394 2721	Exporter: Yes
	Witkoppen, 2068	e-mail: roypat@icon.co.za	Employees: 38
		Website: www.stainlesspressings.com	Quality Rating: ISO 9001
A	**DONALDSON FILTRATION SYSTEMS (Pty) Ltd**		
	Administration Offices	Greg Nieuwstad, Finance Director	Engine filtration products; associated design and
	Clock Tower Offices	Tel: +27 (0)21 446 4920	development of above products and technical
	Clock Tower Centre	Fax: +27 (0)21 446 4931	support of product in the field, covering air, fuel,

	V&A Waterfront, Cape Town		lube, hydraulics, coolant.
			Exporter: Yes
	Plant		Export Enquiries: Rob Simpson
	Frank Donaldson House	André Wessels, Operations Director	Employees: 257
	Kinghall Avenue, Epping	e-mail:	Quality Rating: TS 16949:2002/QS-9000/ISO 9001
	Industria, Cape Town	andre.wessels@emea.donaldson.com	
	PO Box 149	Tel: +27 (0)21 530 2900	
	Eppindust, 7475	Fax: +27 (0)21 534 7708	
		Website: www.donaldson.co.za	
C	***Sales & Distribution Centre***		
	Cnr. Meadow Avenue &	Rob Simpson, Managing Director	
	Lake Road, Longmeadow	e-mail: marketing@emea.donaldson.com	
	Ext. 8, Modderfontein, 1609	Tel: +27 (0) 11 997 6000	
	PO Box 11548	Fax: +27 (0) 11 608 0021	
	Randhart, 1457	Website: www.donaldson.co.za	
	DORBYL LTD		
	Lincoln Road Industrial	R. Röhrs, Group Chief Executive	Dorbyl Automotive Technologies
	Sites, Benoni South, 1502	Tel: +27 (0)11 845 1557	
	PO Box 5016	Fax: +27 (0)11 422 2941	
	Benoni South, 1502	Website: www.dorbyl.co.za	
B	**DORBYL AUTOMOTIVE TECHNOLOGIES**		
	20 Bennett Street	P. Lavery, Chief of Operations	Steel wheels (passenger/commercial), seats,
	Neave Township	Tel: +27 (0)41 408 6002	seat slides and recliners, forgings and castings,
	Port Elizabeth, 6001	B. Wood, Finance Director	CV joints, propshafts, steering gears, other steering
	PO Box 1061	Tel: +27(0)41 408 6019	components, suspension modules.
	Port Elizabeth, 6000	Fax: +27 (0)41 408 6035	Exporter: Yes
		e-mail: dorbyl@guestroauto.com	Quality Rating: ISO 9002/QS 9000/VDA 6.1/
		Website: www.dorbyl.co.za	ISO TS 14969
	Asia Pacific		
	Kim Heng Automotive	P. Lavery, Chief of Operations	Representing the entire Group.
	Pte Ltd	M. Yu, Asian Pacific Representative	
	KB-1 No. 1 Kaki	Tel: +65 6 848 4 796	
	Bukit Avenue 3#09-04	Fax: +65 6 848 4 797	
	Singapore 416087	e-mail: mac@99kimheng.com	
		Website: www.dorbyl.co.za	
	Europe		
	Hoermannsdorf 12	P. Lavery, Chief of Operations	Representing the entire Group.
	85560 Ebersberg	H. Feneberg, Marketing Agent	
	Germany	Tel: +49 8092 852513	
		Fax: +49 8092 852514	
		e-mail: dorbyl@t-online.de	
		Website: www.dorbyl.co.za	
	United States of America		
	4281 Cherokee Trail	P. Lavery, Chief of Operations	Representing the entire Group.
	Gainesville	M. Southey, Marketing Agent	
	GA 30504	Tel: +1 678 450 4981	
	United States of America	Fax: +1 678 450 4983	
		e-mail: msouthey.haltrad@gmail.com	

		Website: www.dorbyl.co.za	
B	***Centralised Sales & Marketing - Port Elizabeth***		
	20 Bennett Street	P. Lavery, Chief of Operations	Representing the entire Group.
	Neave Township	e-mail: patrick.lavery@guestroauto.com	
	Port Elizabeth, 6001	Tel: +27 (0)41 408 6002	
	PO Box 1061	Fax: +27 (0)41 408 6035	
	Port Elizabeth, 6000	Website: www.dorbyl.co.za	
B	***Dorbyl Automotive Systems***		
	20 Bennett Street	P. Lavery, Chief of Operations	Seat frames, seat slides, height adjusters recliner
	Neave Township	J. Steyn, General Manager	mechanisms, public transport seating, pressed
	Port Elizabeth, 6001	Tel: +27 (0)41 408 6013	and profile hinges, door check straps.
	PO Box 4297	Fax: +27 (0)41 408 6103	Exporter: Yes
	Korsten, 6014	e-mail: johan.steyn@guestroauto.com	Quality Rating: QS 9000/ISO 9002/TS 16949
		Website: www.dorbyl.co.za	
B	***Dorbyl Magnetto Wheels***		
	New Brighton Township	P. Lavery, Chief of Operations	Steel road wheels for passenger, light commercial
	Ext No. 1, Struandale	R. Bartlett, General Manager	vehicles, trailers and medium and heavy
	Industrial Township	Tel: +27 (0)41 401 5208	commercial vehicles.
	Port Elizabeth, 6001	Fax: +27 (0)41 401 5267	Exporter: Yes
	PO Box 1016	e-mail: ron.bartlett@guestroauto.com	Quality Rating: QS 9000/VDA 6.1/ISO 9002
	Port Elizabeth 6000	Website: www.dorbyl.co.za	
B	***Guestro Automotive Casting & Machining***		
	Lincoln Road Industrial Sites	H. Helberg, General Manager	SG and grey iron castings.
	Benoni South, 1502	Tel: +27 (0)11 845 1546	Exporter: Yes
	PO Box 5016	Fax: +27 (0)11 422 3512	Quality Rating: ISO 9002/TS 16949
	Benoni South, 1502	e-mail: hendrik.helberg@guestroauto.com	
		Website: www.dorbyl.co.za	
B	***Guestro Forging and Machining***		
	Edison Street	P. Lavery, Chief of Operations	Passenger and commercial vehicle propshafts
	Uitenhage, 6230	C.Foster, General Manager	and sub components, manual steering gear
	PO Box 1397	Tel: +27 (0)41 995 7752	assemblies. Unmachined steel forgings.
	Uitenhage, 6230	Fax: +27 (0)86 634 3763	Exporter: Yes
		e-mail: chris.foster@guestroauto.com	Quality Rating: ISO 9002/QS 9000/VDA 6.1
		Website: www.dorbyl.co.za	
B	***Guestro Steering Gears***		
	Edison Street	P. Lavery, Chief of Operations	Passenger and commercial vehicle manual
	Uitenhage, 6230	C.Foster, General Manager	steering gear assemblies.
	PO Box 1397	Tel: +27 (0)41 995 7752	Exporter: Yes
	Uitenhage, 6230	Fax: +27 (0)86 634 3763	Quality Rating: ISO 9002/QS 9000/VDA 6.1
		e-mail: chris.foster@guestroauto.com	
		Website: www.dorbyl.co.za	
B	***Pullmaflex (Pty) Ltd***		
	Bennett Street, Neave	P. Lavery, Chief of Operations	Pullmaflex pads, springs and suspension
	Township	J. Steyn, General Manager	systems for seats.
	Port Elizabeth, 6001	Tel: +27 (0)41 408 6013	Exporter: Yes
	PO Box 4297	Fax: +27 (0)41 408 6103	Quality Rating: QS 9000/ISO 9002
	Korsten 6014	e-mail: johan.steyn@guestroauto.com	
		Website: www.dorbyl.co.za	

B	***Univel Transmissions (Pty) Ltd***		
	Bennett Street, Neave	P. Lavery, Chief of Operations	Constant velocity drive shafts and joints.
	Township	R. Louw, General Manager	Exporter: Yes
	Port Elizabeth, 6001	Tel: +27 (0)41 408 6136	Quality Rating: ISO 9002/VDA 6.1/TS 16949
	PO Box 14440	Fax: +27 (0)41 408 6113	
	Sidwell 6061	e-mail: romeo.louw@guestroauto.com	
		Website: www.dorbyl.co.za	
SP	**DSV-Turners SHIPPING *(Turners Shipping (Pty) Ltd t/a)***		
	Head Office	Adrian Brink, Regional Manager	Dedicated Automotive Department specializing in
	Unit 1, Highway Gardens	e-mail:	international freight forwarding, customs clearing,
	Office Park	adrian@dsvturnersshipping.co.za	production logistics, supply chain logistics and
	Cnr Minuach &	Braam Lourens, Regional Sales Manager	live tracking. Worldwide organisation with
	Partridge Roads	e-mail:	500 offices.
	Highway Gardens	braam@dsvturnersshipping.co.za	Employees: 131
	Edenvale	Tel: +27 (0)11 452 8408	Quality Rating: ISO9002:2000/A-License in China
	PO Box 9421	Fax: +27 (0)11 452 8707	
	Edenglen, 1613	Website: www.dsvturnersshipping.co.za	
B	**DUNLOP AUTOMOTIVE PRODUCTS (Pty) Ltd**		
	Induna Mills Road, Howick	Andries Bezuidenhout, Sales Manager	Manufacturers of radiator, heater and fuel hoses,
	PO Box 29	Tel: +27 (0)33 239 3311	grommets, weather seals and gaskets for windows,
	Howick, 3290	Fax:+27 (0)33 239 3388	doors and boots.
		e-mail: andriesb@dunlophose.co.za	Exporter: Yes
		Website: www.dunlopindustrial.co.za	Export Enquiries: Andries Bezuidenhout
			Employees: 125
	Sales Office		Quality Rating: SABS ISO 9001/ISO TS 16949/
	24 Garfield Road, Alrode	Andries Bezuidenhout, Sales Manager	ISO 14000/QI (Ford)
	Alberton, 1440	Tel: +27 (0) 83 440 3050	
		Fax: +27 (0) 866 878 352	
		e-mail: andriesb@dunlophose.co.za	
		Website: www.dunlopindustrial.co.za	
B	**DURA AUTOMOTIVE (Pty) Ltd**		
	Stand 52/53, 5th Street	Sven Damm, General Manager	Manufacturers of main floor carpets, boot carpets,
	Ga-Rankuwa	Tel: +27 (0)12 703 4372	boot sides, parcel shelves, back panels and console
	North West Province	Fax: +27 (0)12 703 4391	side pieces and Insulation Components for the
	PO Box 911-244	e-mail:	automotive industry.
	Rosslyn, 0200	sven.damm@dura-automotive.co.za	Exporter: Yes
		Website: www.dura.de	Employees: 88
			Quality Rating: TS 16949/ISO 14001
B	**DURAM AUTOMOTIVE (Pty) Ltd**		
	13 Alternator Avenue	Simon Stekhoven, Managing Director	Paint-on polyurethane pick-up truck bedliners.
	Montague Gardens	Tel: +27 (0)21 555 3090	Manufacture of OEM approved coatings for
	Cape Town, 7441	Fax: +27 (0)21 555 3096	plastic parts.
	PO Box 36802	e-mail: sstekhoven@duram.co.za	Exporter: Yes
	Chempet, 7442		Export Enquiries: Simon Stekhoven
			Employees: 3
			Quality Rating: ISO 9001
B	**EAST CAPE WIRING (Pty) Ltd**		
	3 Spondo Street	Robert Marriott, Director	Manufacturers of wiring harnesses and battery

	Struandale	William Lee, Director	cables to OEM's and 1st Tier suppliers locally and
	Port Elizabeth, 6001	Carlos Dos Santos, Head of	abroad.
	PO Box 12843	Sales & Marketing	Exporter: Yes
	Centrahil, 6006	e-mail: calusan@mweb.co.za	Employees: 520
		Cell: +27 (0) 83 656 8501	Quality Rating: TS 16949/VDA 6
		Jacques Bosman, Sales & Marketing Manager	
		e-mail: jacques.bosman@vodamail.co.za	
		Cell: +27 (0) 82 651 0025	
		Tel: +27 (0) 41 452 5272	
		Fax: +27 (0) 041 452 6745	
		e-mail: info@eastcapewiring.com	
		Website: www.eastcapewiring.com	
B	**EBERSPÄCHER S A (Pty) Ltd**		
	223 Grahamstown Road	Henry Eksteen, Managing Director	Stainless steel welding (canning) of catalytic converters.
	Deal Party	e-mail:	Motor vehicle silencers/mufflers.
	Port Elizabeth, 6012	henry.eksteen@eberspaecher.co.za	Other components of exhaust systems.
	PO Box 9031, Estadeal,	Tel: +27 (0)41 408 5200	Exporter: Yes
	Port Elizabeth, 6012	Fax: +27 (0)41 486 2358	Employees: 848
		Website: www.eberspaecher.co.za	Quality Rating: Accreditation – TS 16949:2002
			ISO 14001 Environmental/ISO 9001:2000
B	**EISSMANN AUTOMOTIVE South Africa (Pty) Ltd**		
	Giulietti Street 3+5+7,	Klaus J. Besch, Managing Director	Manufacturers of automotive interior trim components
	Walmer Dunes Industrial	Tel: +27 (0)41 501 6400	and operating elements. Sewn leather door panels,
	Park, Port Elizabeth, 6070	Fax: +27 (0)41 501 6434	gearshift levers, armrests, handbrake covers, seat
	PO Box 15167	e-mail: info.sa@eissmann.com	covers.
	Emerald Hill	Website: www.eissmann.de	Exporter: Yes
	Port Elizabeth, 6011	Website: customeiss@eissmann.com	Employees: 70
			Quality Rating: ISO TS 16949/EN ISO 14001:2004
BD	**ELASTOGRAN South Africa (Pty) Ltd**		
	Evergreen Road	Andrew Bailey, Managing Director	Manufacturers of polyurethane systems.
	Tunney Ext. 7, Greenhills	Tel: +27 (0)11 876 6650	Exporter: No
	Elandsfontein	Fax: +27 (0)11 876 6665	Employees: 56
	PO Box 524	e-mail:	Quality Rating: ISO 9001:2000 (BSI/Now DQS)
	Edenvale, 1610	andrew.bailey@elastogran.co.za	Responsible Care
		Website: www.elastogran.com	
BD	**EURO-PLASTIFOAM (Pty) Ltd**		
	114 Phillips Street	S.P. Bazzini, Managing Director	Flexible foam seat pads, seat squabs, headrests,
	Rosslyn, Pretoria, 0200	Tel: +27 (0)12 541 3464	armrests, steering wheels, spoilers, front/rear mud
	PO Box 911-558	Fax: +27 (0)12 541 0134	flaps, body side mouldings and other polyurethane
	Rosslyn, 0200	e-mail: europlastifoam@mweb.co.za	products. Injection moulded plastic components.
		Website: www.epf.co.za	Exporter: Yes
			Export Enquiries: Stefano Bazzini
			Employees: 170
			Quality Rating: ISO 9001:2000/ISO TS 16949:2002
			ISO 14001:2004
	FAURECIA INTERIOR SYSTEMS South Africa (Pty) Ltd		
B	***East London***		
	Jonker Crescent off	Dr. Albrecht Piro, Managing Director	Door trim panels
	Military Road, West Bank	John Faber, Site Manager	Exporter: No
	East London, 5201	e-mail: john.faber@faurecia.com	Employees: 38

	PO Box 7239	Tel: +27 (0)43 731 2919	Quality Rating: ISO TS 16949/ISO 14001
	East London, 5200	Fax: +27 (0)43 731 2255	
B	***Port Elizabeth***		
	Cnr. Larch Avenue & Wattle	Dr. Albrecht Piro, Managing Director	Door trim panels, armrests, soft interior
	Square, Holland Park	Tubby Wills, Plant Manager	trim, mats, moulded PU articles, parcel shelves,
	Port Elizabeth, 6001	e-mail: tubby.wills@faurecia.com	A/B/C post covers, crash pads, instrument panels,
	PO Box 770	Tel: +27 (0)41 393 4200	Exporter: Yes
	Port Elizabeth, 6000	Fax: +27 (0)41 393 4261	Employees: 334
			Quality Rating: ISO TS 16949/ISO 14001/ Q1
B	***Pretoria***		
	De Waal Street	Dr. Albrecht Piro, Managing Director	Door trim panels, instrument panels, glove
	Pretoria, Rosslyn	Tel: +27 (0)12 541 3470	boxes, A/C/B post covers, front-end carriers,
	PO Box 17382	Fax: +27 (0)12 541 2971	light carriers.
	Pretoria North, 0116		Exporter: Yes
			Employees: 100
			Quality Rating: ISO TS 16949
B	**FEDERAL-MOGUL AFTERMARKET Southern Africa (Pty) Ltd**		
	33 Western Boulevard	M. Perrie, Managing Director	AE, Nural, FP Diesel, Glyco & Goetze engine
	City West, Johannesburg	Samantha Podmore, Marketing	products including pistons, liners, bearings,
	PO Box 636	Manager	valves, valve guides, valve seat inserts, ring sets,
	Crown Mines, 2025	e-mail:	Ferodo brake discs, disc brake pads, brake linings
		samantha.podmore@federalmogul.com	and brake fluid, Champion spark plugs, wiper
		Tel: +27 (0)11 630 3000	blades, arms and linkages, National automotive
		Fax: +27 (0)11 630 3212	lamps & Wagner sealed beams. Payen & Goetze
			automotive gaskets, oil seals and cylinder head bolts.
			Exporter: Yes
			Export Enquiries: Chris Hillier, Sales Director
			Specialist Markets
			Employees: 180
			Quality Rating: ISO 9001:2000/ISO 14001:1994
			OHSAS 18001 Rating Imminent
BD	**FEDERAL-MOGUL FRICTION PRODUCTS (Pty) Ltd**		
	13-15 Joyner Road	Andrew Thevan, Plant Manager	Manufacturer of friction materials, including light
	Prospecton, KwaZulu Natal	Vicky Rajkumar, Sales Manager	vehicle disc brake pads, commercial vehicle
	PO Box 26047	Tel: +27 (0)31 913 3500	brake linings and railblocks.
	Isipingo Beach, 4115	Fax: +27 (0)31 902 5168	Exporter: Yes
		e-mail:	Export Enquiries: Vicky Rajkumar
		vicky.rajkumar@federalmogul.com	Employees: 381
		e-mail:	Quality Rating: TS 16949/ISO 14001/ISO 18001
		connie.cunningham@federalmogul.com	
B	**FEDERAL-MOGUL IGNITION (Pty) Ltd**		
	Cnr. Isando &	Mark Bonney, Plant Manager	Champion spark plugs, wiper blades, wiper arms
	Brewery Roads	Quintin Bond, Engineering Manager	and wiper linkages.
	Isando, Gauteng	Tel: +27 (0)11 573 4738	Exporter: Yes
	PO Box 88	Swb: +27 (0)11 573 4700	Export Enquiries: Quintin Bond, Sales Manager
	Isando, 1600	Fax: +27 (0)11 974 6788	Employees: 135
		e-mail: quintin.bond@federalmogul.com	Quality Rating: TS 16949/ISO 14001/
			ISO 9001:2000/Q1
B	**FEDERAL-MOGUL POWERTRAIN SYSTEMS SA (Pty) Ltd**		

	15 Alexander Road	Les Govender, Plant Manager	Manufacturer of automotive engine valves
	Westmead, Pinetown, 3610	e-mail:	and bearings.
	PO Box 198	les.govender@federalmogul.com	Exporter: Yes
	Pinetown, 3600	Steve Maritz, Business Dev. Manager	Export Enquiries:
		e-mail:	Steve Maritz (Valves)
		steve.maritz@federalmogul.com	Bob McCosh (Engine Bearings)
		Bob McCosh, Technical Manager	Employees: 591
		e-mail:	Quality Rating: QS 9000/ISO TS 16949:2000
		bob.mccosh@federalmogul.com	
		Tel: +27 (0)31 717 3300	
		Fax: +27 (0)31 700 5014	
B	**FEDERAL-MOGUL SEALING SYSTEMS (Pty) Ltd**		
	71-77 Burman Road	Chris Stanbridge, Sales Director	Automotive gaskets, oil seals, heat shields.
	Deal Party Estate	Tel: +27 (0)41 404 4200	Exporter: Yes
	Port Elizabeth, 6001	Fax: +27 (0)41 486 2524	Export Enquiries: Chris Stanbridge
	PO Box 9005	e-mail:	Employees: 420
	Estadeal, 6012	Chris.Stanbridge@federalmogul.com	Quality Rating: QS 9000/ISO 9002/Ford Q1:2002
			ISO 14001/TS 16949/VDA 6/ISO 18001
AB	**FELTEX AUTOMOTIVE**		
	291 Paisley Road	Ugo Frigerio, Managing Director	Feltex Automotive Trim
	Jacobs, Durban, 4052	Cell: +27 (0)82 781 8006	Caravelle Carpets (Pty) Ltd
	PO Box 12983	e-mail: ugof@feltex.co.za	Futuris Feltex (Pty) Ltd
	Jacobs, 4026	Tel: +27 (0)31 460 4209	Feltex Fehrer (Pty) Ltd
		Fax: +27 (0)31 460 4290	Feltex Foam
		Website: www.feltex.co.za	Feltex Unifrax
			Feltex Automotive Leathers
			Rieter Feltex (Pty) Ltd
AB	**FELTEX AUTOMOTIVE TRIM**		
	291 Paisley Road	Peter Duncan, General Manager	Moulded floor and boot carpets, sound insulation,
	Jacobs, Durban, 4052	Cell: +27 (0)82 414 9660	headliners, parcel shelves, heat shields, cut and sew
	PO Box 12222	e-mail: peterd@feltex.co.za	components.
	Jacobs, 4026	Tel: +27 (0)31 460 4508	Exporter: Yes
		Grant Longhurst, Sales and	Export Enquiries: Grant Longhurst
		Marketing Manager	Employees: 996 (National figure)
		Cell: +27 (0)82 906 6785	Quality Rating: ISO 9002/QS 9000/VDA 6.1/TS 16949/
		e-mail: grantl@feltex.co.za	ISO 14000
		Tel: +27 (0)31 460 4202	
		Fax: +27 (0)31 460 4291	
		Website: www.feltex.co.za	
AB	***Durban***		
	291 Paisley Road	Mike Everitt, Plant Manager	Moulded floor and boot carpets, sound insulation,
	Jacobs, Durban, 4052	Cell: +27 (0)82 906 6785	headliners, parcel shelves, heat shields, cut and sew
	PO Box 12222	e-mail: mikee@feltex.co.za	components.
	Jacobs, 4026	Tel: +27 (0)31 460 4297	Exporter: Yes
		Rino Sella, Business Development Manager	Export Enquiries: Rino Sella
		Cell: +27 (0)82 903 5105	Employees: 242
		e-mail: rinos@feltex.co.za	
		Tel: +27 (0)31 460 4238	
		Fax: +27 (0)31 460 4291	
		Website: www.feltex.co.za	

AB	***East London***		
	Feltex Automotive	Graeme Bieske	Moulded floor and boot carpets, sound insulation,
	Supplier Park	Cell +27 (0)82 560 2058	headliners, parcel shelves, heat shields, cut and sew
	Lower Chester Road	e-mail: graemeb@feltex.co.za	components.
	Sunnyridge	Kevin Claridge, Business Development	Exporter: Yes
	East London, 5201	Manager	Export Enquiries: Kevin Claridge
	PO Box 5337	Cell +27 (0)83 640 7773	Employees: 269
	Greenfields, 5208	e-mail: kevinc@feltex.co.za	
		Tel: +27 (0)43 706 4800	
		Fax: +27 (0)43 706 4813	
		Website: www.feltex.co.za	
AB	***Port Elizabeth***		
	19 Lindsay Road	Roy Tustin, Business	Moulded floor and boot carpets, sound insulation,
	Papenkuils Ind. Township	Development Manager	headliners, parcel shelves, heat shields, cut and sew
	Port Elizabeth, 6001	Cell: +27 (0)82 903 5626	components.
	PO Box 2079	e-mail: royt@feltex.co.za	Exporter: No
	North End, 6056	Tel: +27 (0)41 407 4403	Export Enquiries: Roy Tustin
		Fax: +27 (0)41 407 4517	Employees: 22
		Website: www.feltex.co.za	
AB	***Rosslyn***		
	41 Marthinus Ras Street	Kobus Oosthuysen, Plant Manager	Moulded floor and boot carpets, sound insulation,
	Rosslyn, Pretoria, 0200	Cell +27 (0)82 561 3929	headliners, parcel shelves, heat shields, cut and sew
	PO Box 911-106	e-mail: kobuso@feltex.co.za	components.
	Rosslyn, 0020	Cedric Van Blerk, Business	Exporter: Yes
		Development Manager	Export Enquiries: Cedric van Blerk/Leon Van Rooyen
		Cell +27 (0)82 908 7361	Employees: 182
		e-mail: cedricv@feltex.co.za	Quality Rating: ISO 9002/QS 9000/VDA 6.1/
		Leon Van Rooyen, Business	TS 16949/ISO 14000
		Development Manager	
		Cell +27 (0)82 887 2239	
		e-mail: leonr@feltex.co.za	
		Tel: +27 (0)12 564 4618	
		Fax: +27 (0)12 564 4615	
		Website: www.feltex.co.za	
D	**FELTEX NON WOVEN**		
	291 Paisley Road	Willem van Eck, General Manager	Needle punch Carpet, flat needled and Random
	Jacobs, Durban, 4052	Cell: +27 (0)82 909 4404	Velour Thermoplastic felts, Mouldable and
	PO Box 12222	e-mail: willemve@feltex.co.za	other felts.
	Jacobs, 4026	Tel: +27 (0)31 460 4345	Employees: 153
		Fax: +27 (0)31 460 4291	
		Website: www.feltex.co.za	
AB	**CARAVELLE CARPETS (Pty) Ltd**		
	827 Richards Drive	Mike Tomsett, Managing Director	Loose lay mats for the automotive industry.
	Halfway House	Cell: +27 (0)82 905 2991	Exporter: Yes
	Midrand, 1685	e-mail: mike@caravelle.co.za	Export Enquiries: Mike Tomsett
	~~PO Box 5337~~	Tertius Roberts, Business	Employees: 119
	~~Greenfields, 5208~~	Development Manager	Quality Rating: ISO TS 16949/ISO 14000
		Cell: +27 (0)83 228 9477	
		e-mail: tertius@caravelle.co.za	
		Thomas Koens Roberts, Product Development Manager	
		Cell: +27 (0)82 780 1160	

		e-mail: tkoen@caravelle.co.za	
		Tel: +27 (0)11 805 6126	
		Fax: +27 (0)11 805 6633	
		Website: www.feltex.co.za	
AB	**FUTURIS FELTEX (Pty) Ltd**		
	Feltex Automotive	Dieter Kriegisch, General Manager	Tufted automotive carpets with specialised secondary
	Supplier Park	Cell: +27 (0)83 297 0994	backings. Heavy layers and sound deadening insulators
	Lower Chester Road	e-mail: dkriegisch@futurisfeltex.co.za	Exporter: Yes
	Sunnyridge	Tel: +27 (0)43 706 4800	Export Enquiries: Dieter Kriegisch
	East London, 5201	Fax: +27 (0)43 706 4866	Employees: 23
	PO Box 5337	Website: www.feltex.co.za	
	Greenfields, 5208		
A	**FELTEX FEHRER (Pty) Ltd**		
	291 Paisley Road	Bruce Muggeridge, General Manager	Moulded polyurethane hot and cold cure seat pads,
	Jacobs, Durban, 4052	Cell: +27 (0)82 903 5104	cold cure headrests, moulded polyurethane sound
	PO Box 12983	e-mail: brucem@feltex.co.za	deadeners, Pour-in-Place headrests and suspension
	Jacobs, 4026	Tel: +27 (0)31 460 4208	aids. Wire frames and listing wires.
		Fax: +27 (0)31 460 4322	Exporter: No
		Website: www.feltex.co.za	Export Enquiries: Bruce Muggeridge
			Employees: 657 (National figure)
			Quality Rating: ISO 9001:2000/TS 16949:2002/ISO
A	***Durban***		
	291 Paisley Road	Garth Meyer, Plant Manager	Moulded polyurethane hot and cold cure seat
	Jacobs, Durban, 4052	Cell: +27 (0)83 677 5693	pads, cold cure headrests, moulded polyurethane
	PO Box 12983	e-mail: garthm@feltex.co.za	sound deadeners and Pour-in-Place headrests.
	Jacobs, 4026	Tel: +27 (0)31 460 4263	Exporter: No
		Fax: +27 (0)31 460 4322	Export Enquiries: Bruce Muggeridge
		Website: www.feltex.co.za	Employees: 266
			Quality Rating: ISO 9001:2000/TS 16949:2002/ISO
A	***East London***		
	Feltex Automotive	David Tsehlo, Plant Manager	Moulded polyurethane hot and cold cure seat pads,
	Supplier Park, Lower	Cell: +27 (0)82 907 7904	cold cure headrests, moulded polyurethane
	Chester Road, Sunnyridge	e-mail: davidt@feltex.co.za	sound deadeners and Pour-in-Place headrests.
	East London, 5201	Tel: +27 (0)43 706 4825	Exporter: No
	PO Box 5337	Fax: +27 (0)43 706 4824	Export Enquiries: Bruce Muggeridge
	Greenfields, 5208	Website: www.feltex.co.za	Employees: 53
			Quality Rating: ISO 9001:2000/TS 16949:2002/ISO
A	***Port Elizabeth***		
	19 Lindsay Road	Gert Harmse, Plant Manager	Moulded polyurethane hot and cold cure seat pads,
	Neave Industrial Township	Cell: +27 (0)82 906 6924	cold cure headrests, moulded polyurethane sound
	Port Elizabeth, 6001	e-mail: gerth@feltex.co.za	deadeners, Pour-in-Place headrests and suspension
	PO Box 2079	Peter Jessop, Business	aids. Wire frames and listing wires.
	North End, 6056	Development Manager	Exporter: No
		Cell: +27 (0)82 372 8514	Export Enquiries: Bruce Muggeridge
		e-mail: peterj@feltex.co.za	Employees: 249
		Tel: +27 (0)41 407 4400	Quality Rating: ISO 9001:2000/TS 16949:2002/ISO
		Fax: +27 (0)41 407 4417	

		Website: www.feltex.co.za	
A	***Rosslyn***		
	41 Marthinus Ras Street	Andre Mostert, Plant Manager	Moulded polyurethane hot and cold cure seat pads,
	Rosslyn, Pretoria, 0200	Cell: +27 (0)83 625 5667	cold cure headrests, moulded polyurethane
	PO Box 911-106	e-mail: andrem@feltex.co.za	sound deadeners and Pour-in-Place headrests.
	Rosslyn, 0020	Tel: +27 (0)12 564 4653	Exporter: No
		Fax: +27 (0)12 564 4617	Export Enquiries: Bruce Muggeridge
		Website: www.feltex.co.za	Employees: 89
			Quality Rating: ISO 9001:2000/TS 16949:2002/ISO
D	**FELTEX FOAM CONVERTING**		
	291 Paisley Road	Andrew Pillay, General Manager	Producer of polyester and polyether flexible,
	Jacobs, Durban, 4052	Cell: +27 (0)83 677 5670	semi rigid and rigid foams. Peeled roll stock,
	PO Box 13110	e-mail: andrewp@feltex.co.za	laminated foam pads, die-cut anti-rattle pads,
	Jacobs, 4026	Tel: +27 (0)31 460 4320	fabricated foam squabs, die-cut chip foam parts.
		Fax: +27 (0)31 460 4309	Exporter: Yes
		Judy Combrink, Sales Specialist	Export Enquiries: Andrew Pillay
		Cell: +27 (0) 83 631 2130	Employees: 68
		e-mail: judyc@feltex.co.za	Quality Rating: ISO 9001:2000/TS 16949:2002/ISO
		Tel: +27 (0)31 460 4318	
		Fax: +27 (0)31 460 4312	
		Website: www.feltex.co.za	
A	**RIETER FELTEX AUTOMOTIVE (Pty) Ltd**		
	Automotive Supplier Park	Robert Gooch, General Manager	Aluminium heatshields and long fibre
	30 Helium Road	Cell: +27 (0)82 905 9958	reinforced Thermoplastic (LFT) undershields
	Rosslyn, 0200	e-mail: robertg@rieterfeltex.co.za	and parts.
	PO Box 911-3537	Marietjie Viljoen, Sales & Marketing Manager	Exporter: Yes
	Rosslyn, 0200	Cell: +27 (0)82 456 6527	Export Enquiries: Robert Gooch
		e-mail: marietjiev@rieterfeltex.co.za	Employees: 81
		Tel: +27 (0)12 564 3100	Quality Rating: TS 16949/ISO 14001/OHSAS 18001
		Fax: +27 (0)12 564 3102	
		Website: www.feltex.co.za	
B	**FINE BLANKING (Pty) Ltd**		
	61 Gibbs Road, Devland	Jake van der Kolk, Managing Director	A comprehensive range of components in copper,
	Johannesburg	Christo Holtzhausen, General Manager	brass, aluminium, stainless steel along with cold
	PO Box 38345	Tel: +27 (0)11 933 1062	and hot rolled carbon steel strip, used in many
	Booysens, 2016	Fax: +27 (0)11 938 1590	industries. The range of products manufactured
		e-mail: info@fineblanking.co.za	for the motor industry includes safety critical parts
		Website: www.fineblanking.co.za	such as brake pad backing plates, door lock parts,
			handbrake sections, gear and toothed segments
			including exhaust flanges for catalytic converters.
			Services include fine blanked and machined
			components, tool design, engineering and
			manufacturing.
			Exporter: Yes
			Export Enquiries: Christo Holtzhausen
			Employees: 35
			Quality Rating: ISO 9001:2000/ISO TS16949
SP	**FIRST NATIONAL BANK**		
	1st Place	Zoli Klaas, Head of Automotive,	At FNB Corporate Banking, we constantly look for
	Cnr Simmonds &	Transport & Logistics	ways to help our clients grow their business. No

	Pritchard Streets	Tel: +27 (0)11 371 2284	matter which landscape our clients operate in,
	Johannesburg	Fax: +27 (0)11 371 2123	our interventions, innovations, new solutions and
	PO Box 7791	e-mail: klaasz@fnb.co.za	constant optimisation of their cash flow will ensure
	Johannesburg, 2000	Website: www.fnb.co.za	that it always sustains the business it supports.
		Website: www.fnb.co.za/corporate	
B	**FIRST NATIONAL BATTERY - *A Division of Metindustrial (Pty) Limited***		
	Liverpool Road	Andrew Webb, Director	Lead acid starter batteries.
	Industrial Sites	Automotive Marketing	Exporter: Yes
	Benoni, 1502	e-mail: andreww@battery.co.za	Export Enquiries: A C G Webb
	PO Box 5015	Tel: +27 (0)11 741 3600	Employees: 681
	Benoni South, 1502	Fax: +27 (0)11 421 2642	Quality Rating: ISO 9001:2000/TS 16949:2002
		e-mail: marketing@battery.co.za	ISO 14001:2004/VDA 6
		Website: www.battery.co.za	
B	**FIRSTPRO ENGINEERING (Pty) Ltd**		
	Schoof Street, Wilsonia	Tony Little, Managing Director	Manufacturers of connecting rods, flywheels,
	East London	Tel: +27 (0)43 745 2009	exhaust manifolds, adaptor plates, wheel hubs
	PO Box 1924	Fax: +27 (0)43 745 1214	water pumps & bearing caps.
	East London, 5200	e-mail: info@firstpro.co.za	Exporter: No
			Employees: 80
			Quality Rating: ISO TS 16949 (BSI)
B	**FLEXTECH MANUFACTURING (Pty) Ltd**		
	341 Triumph Street	Chantelle du Toit, Marketing Manager	Manufacturer of automotive mechanical control
	Waltloo Ext 1	e-mail: chantelle@flextech.co.za	cables incl. handbrake, clutch, accelerator, bonnet,
	Pretoria 0200	Cell: +27 (0)79 504 1474	bonnet lock, boot, fuel filler, door, window winder
	PO Box 2231	Tel : +27 (0)12 803 4485	and seat release control cables.
	Silverton, 0127	Fax: +27 (0)86 535 2271	Exporter: Yes
		Website: www.flextech.co.za	Export Enquiries: Liam Ryan or Chantelle du Toit
			Employees: 126
			Quality Rating: ISO 9001/QS 9000/VDA 6.1A
			ISO TS 16949/ISO 14001/Ford Q1
	FORMEX INDUSTRIES (Pty) Ltd		
A	***Baisch Engineering – A Division of Formex Industries (Pty) Ltd***		
	4 Derrick Road	Brendon Lowe, Managing Director	Manufacture of engine and pulleys and
	Spartan	e-mail: brendonl@baisch.co.za	assembly of door locks for the automotive industry.
	Kempton Park, Gauteng	Tel: +27 (0)11 971 5001	Exporter: Yes
	P O Box 2378	Fax: +27 (0)11 970 1419	Export Enquiries: Henk van der Merwe
	Kempton Park, 1620	Website: www.baisch.co.za	Tel: +27 (0)12 797 7000
			Employees: 250
			Quality Rating: ISO TS 16949:2002 / ISO 14001 / Ford
B	***Formex Engineering – A Division of Formex Industries (Pty) Ltd***		
	45 Cottrell Street	Werner van Rensburg, Managing Director	Manufacturers of stainless steel silencer shells
	Korsten	e-mail: wvanrensburg@formex.co.za	and cones for catalytic converters. Metal pressing,
	Port Elizabeth, 6020	Tel: +27 (0)41 453 2343	welded assemblies, robotic and spot welding. Fuel
	P O Box 4003	Fax: +27 (0)41 453 2341	tanks for the motor industry. Tool and die making
	Korsten	Website: www.formex.co.za	on CAD / CAM equipment.
	Port Elizabeth, 6014		Exporter: Yes
			Export Enquiries: Henk van der Merwe
			Tel: +27 (0)12 797 7000
			Employees: 500
			Quality Rating: TS 16949 / ISO 14000

A	**FOXTEC-IKHWEZI (Pty) Ltd**		
	De Wet Street, West Bank	Antony Funston, General Manager	Manufacturers of aluminium suspension struts for
	East London	Tel: +27 (0)43 703 3502	the automotive industry.
	PO Box 14153	Fax: +27 (0)43 7033515	Exporter: Yes
	East London, 5218	e-mail: antony@foxtecikhwezi.co.za	Employees: 49
		Website: www.foxtecikhwezi.co.za	
B	**FRUEHAUF COMPONENTS** - ***A Division of Henred Fruehauf (Pty) Ltd***		
	Cnr. Niemann & Calcium	Willem M Coetzer, Managing Director	Manufacturers of heavy duty axles, suspensions,
	Roads, Wadeville, Gauteng	Japie Coetzer, Works Manager	hydraulic cylinders, components used within the
	PO Box 14628	e-mail: japiec@henred.co.za	aforementioned products and rubber components.
	Germiston, 1422	Tel: +27 (0)11 878 4000	Exporter: Yes
		Fax: +27 (0)11 824 6407	Trailer Export Enquiries: Charl van Zyl,
			Import/Export Manager
			e-mail: charl@satb.co.za
			Component Export Enquiries: Alan De Beer,
			Export Sales Manager
			e-mail: aland@henred.co.za
			Employees: 205
			Quality Rating: ISO 9001:2000
D	**FULCRUM ENGINEERING**		
	96 Loper Avenue	Jan Kruger, Managing Director	Road tanker equipment and dry break couplings.
	Aeroport, Spartan Ext 2	e-mail: jan@sturrocksa.co.za	Service and maintenance of installed base.
	PO Box 1242	Dave Robinson, Marketing Director	Exporter: Yes
	Isando, 1600	e-mail: daver@sturrocksa.co.za	Employees: 47
		Tel: +27 (0)11 392 3720	Quality Rating: ISO 9001:2000
		Fax: +27 (0)11 392 3595	
		Website: www.fulcrumeng.co.za	
B	**G.U.D. HOLDINGS (Pty) Ltd**		
	1 Prospecton Road	Red Shuttleworth, Managing Director	Manufacturers of air, oil and fuel filters for the
	Isipingo	Tel: +27 (0)31 910 3111	automotive and trucking industries.
	KwaZulu Natal, 4110	Fax: +27 (0)31 902 4889	Exporter: Yes
	PO Box 26100	e-mail: shuttler@gud.co.za	Export Enquiries: Ian Law, Export Director
	Isipingo Beach, 4115	Website: www.gud.co.za	Employees: 836
			Quality Rating: SABS ISO 9001/VDA 6.1/
			OS 9000/ISO 14001/TS 16949
	19 Birmingham Road	Rodney Naude, General Manager	Filters: oil, air, fuel, transmission and hydraulic.
	Willowton	Tel: +27 (0)33 392 9300	Filters for passenger/LCV/HCV applications.
	Pietermaritzburg, 3201	Fax: +27 (0)33 390 2322	Exporter: Yes
	PO Box 367	e-mail: nauder@gud.co.za	Export Enquiries: Ian Law, Export Director
	Pietermaritzburg, 3200	Website: www.fram.co.za	e-mail: lawi@filpro.co.za
			Employees: 434
			Quality Rating: ISO 9001:2000/OS 9000
			ISO 14001/TS 16949
B	**G.U.D. MANN+HUMMEL (Pty) Ltd**		
	Christopher Starke Street	Grant Stevenson, Managing Director	Industrial & automotive components (steel/plastic).
	Atlantis	Tel: +27 (0)21 573 7900	Exporter: Yes
	Western Cape, 7349	Fax: +27 (0)21 577 3390	Export Enquiries: Marius Nel, Key Account Manager
	PO Box 1495	e-mail: stevensong@gudatl.co.za	Employees: 140

	Dassenberg, 7350		Quality Rating: SABS ISO 9001:2000/VDA 6/
			QS 9000/SABS TS 16949/ISO 14001/Q1
B*	**GIRLOCK (SA)(Pty) Ltd**		
	82 Electron Avenue	Terence Oliver, General Manager	Disc brake calipers, drum brake assemblies and
	Isando, Johannesburg	e-mail: tergir@iafrica.com	components.
	PO Box 59	Tel: +27 (0)11 974 6655	Exporter: Yes
	Isando, 1600	Fax: +27 (0)11 974 2224	Export Enquiries: Terence Oliver
			Employees: 350
			Quality Rating: ISO 9000/ISO TS 16949/ISO 14001
B	**GKN SINTER METALS**		
	Sacks Circle	Jon Kerr, General Manager	Precision metallurgical components for the
	Bellville South	e-mail: jon.kerr@gknsintermetals.com	automotive/electrical/mining/general engineering
	Western Cape	Tel: +27 (0)21 951 2311	industries.
	PO Box 156	Fax: +27 (0)21 951 2116	Exporter: Yes
	Bellville, 7535	e-mail: infoafrica@gknsintermetals.com	Export Enquiries: Jon Kerr, General Manager
		Website: www.gknsintermetals.com	Employees: 100
			Quality Rating: TS 16949:2002
B	**GLOBAL WHEEL (Pty) Ltd**		
	3 Bessemer Street	Chris Biddle, Chief Executive Officer	Manufacturers of steel wheels ranging from 15 inch
	Heidelberg, Gauteng	Tel: +27 (0)16 341 9800	to 63 inch for the commercial and agricultural sectors
	PO Box 335	Fax: +27 (0)16 341 2185	(excluding passenger wheels).
	Heidelberg, 1438	e-mail: chris.biddle@globalwheel.net	Exporter: Yes
			Employees: 182
			Quality Rating: ISO TS 16949
B	**GRIP-TECH (Pty) Ltd**		
	Unit 47 APD Industrial Park	Manuel Reis, Managing Director	Manufacturers of gearlocks, spare wheel locks
	Kelvin Street, Kya Sand	Tel: +27 (0)11 708 3622	and wheel lock nuts.
	Randburg	Fax: +27 (0)11 708 1710	Exporter: Yes
	PO Box 98	e-mail: manuel@grip-tech.com	Employees: 9
	Kyalami Estate	Website: www.grip-tech.com	Quality Rating: ISO9002:2000 (in progress)
	Midrand, 1684		
A*	**HALBERG GUSS SOUTH AFRICA (Pty) Ltd *(previously Murray & Roberts Foundries Group)***		
	Corporate Office:		
	Struanway, Struandale	Bernard Brusssow, Executive Director:	Production of automotive cast iron and
	Port Elizabeth, 6001	Aluminium Operation & Group Marketing	aluminium power train components, including
	PO Box 14368	David Mertens, Executive Director:	design/CAD and manufacture in-house of
	Sidwell, 6061	Cast Iron Operations & Group Technical	prototype and production tooling. Product range
		e-mail: info@halbergsa.com	includes: engine blocks, heads, manifolds
		Tel: +27 (0)41 402 8800	and associated products in various cast
		Fax: +27 (0)41 402 8830	iron and aluminium grades.
		Website: www.halbergsa.com	Exporter: Yes
			Export Enquiries: Bernard Brussow
			Employees: 950 (Group)
			Quality Rating: QS 9000/ISO 14001/VDA 6/
			TS 16949
B	***Halberg Aluminium (formerly Alucast)***		
	Struanway, Struandale	Bernard Brussow, Marketing Director	Cast, machined and assembled aluminium
	Port Elizabeth, 6001	e-mail: info@halbergsa.com	cylinder heads, intake manifolds and other AL
	PO Box 14368	Tel: +27 (0)41 402 8800	aluminium products.

	Sidwell, 6061	Mark Spence: Plant Manager	
		e-mail: mark.spence@halbergsa.com	
		Tel: +27 (0)41 402 8874	
		Fax: +27 (0)41 452 4428	
		Website: www.halbergsa.com	
A	***Halberg Guss Port Elizabeth (formerly Autocast PE)***		
	Stanford Road, Neave	David Mertens, Technical Director	SG, SiMo and compacted graphite iron
	Township	e-mail: info@halbergsa.com	castings. Products include exhaust manifold,
	Port Elizabeth, 6001	Tel: +27 (0)41 402 8800	catalytic converter flanges and associated
	PO Box 1815	Alan McWilliam, Plant Manager	exhaust components.
	Port Elizabeth, 6000	e-mail: alan.mcwilliam@halbergsa.com	
		Tel: +27 (0)41 405 5500	
		Fax: +27 (0)41 451 2037	
		Website: www.halbergsa.com	
A	***Halberg Guss Brits (formerly Autocast Brits)***		
	15 Piet Pretorius Street	David Mertens, Technical Director	Engine blocks, bearing caps and
	Industrial Sites	e-mail: info@halbergsa.com	associated products in grey iron material.
	Brits, 0250	Tel: +27 (0)12 250 2920	
	PO Box 1031	Pieter du Plessis, Plant Manager	
	Brits, 0250	e-mail: pieter.duplessis@halbergsa.com	
		Tel: +27 (0)12 250 2920	
		Fax: +27 (0)12 250 3057	
		Website: www.halbergsa.com	
A	***Foundries Engineering Centre***		
	Struanway, Struandale	Adrian Sands, Manufacturing Manager	Design, technology and engineering services for
	Port Elizabeth, 6001	e-mail: adrian.sands@halbergsa.com	iron and aluminium foundries. Design and
	PO Box 14045	Tel: +27 (0)41 402 8800	manufacture of tooling. New technologies,
	Sidwell, 6061	Fax: +27 (0)41 452 4400	research and development in iron and
		Website: www.halbergsa.com	aluminium.
B	**HANSENS ENGINEERING (Pty) Ltd**		
	81B Haupt Street, Sidwell	Erik Hagedorn-Hansen,	The company manufactures aluminium automotive
	Port Elizabeth	Managing Director	airconditioning fittings. CNC milling and turning.
	PO Box 14208	Tel: +27 (0)41 451 3825	Exporter: Yes
	Sidwell, 6061	Fax: +27 (0)41 453 1702	Employees: 135
		e-mail: erik@hansens.co.za	Quality Rating: ISO TS 16949:2002
		Website: www.hansens.co.za	
B	**HAYES LEMMERZ SOUTH AFRICA (Pty) Ltd**		
	3 Botha Street	T.O. Volek, Managing Director	Aluminium alloy wheels for passenger vehicles.
	Alrode, Gauteng	Gordon Scott, Sales &	Exporter: Yes
	PO Box 123780	Marketing Manager	Export Enquiries: Gordon Scott
	Alrode, 1451	Tel: +27 (0)11 908 3060	Employees: 363
		Fax: +27 (0)11 864 6402	Quality Rating: ISO TS 16949:2002/ISO 14001:1996
		e-mail: gscott@hayes-lemmerz.com	OHSAS 18000:1999/Ford Q1:2002
	HELLA (South Africa)(Pty) Ltd - *see Lumotech (Pty) Ltd*		
BD	**HELLERMANN TYTON (Pty) Ltd**		
	34 Milky Way Avenue	Rod Dewing, General Manager	Manufacturers of plastic securing/fixing devices, PVC
	Linbro Business Park	e-mail: rod.dewing@hellermann.co.za	tubing, convoluted tubing, terminals and insulation
	Sandton, Gauteng	Jan Hattingh, General Manager	tape for the automotive industry.

	Private Bag X158	e-mail: jan.hattingh@hellermann.co.za	Exporter: Yes
	Rivonia, 2128	Tel: +27 (0)11 879 6600	Employees: 180
		Fax: +27 (0)11 879 6602	Quality Rating: ISO 9001:2000/ISO 14001/
		Mike Sheehan, Automotive Manager	ISO TS 16949
		e-mail: mike.sheehan@hellermann.co.za	
		Tel: +27 (0)41 408 2400	
		Fax: +27 (0)41 453 0336	
		Website: www.hellermanntyton.co.za	
SP	**HELLMANN AUTOMOTIVE LOGISTICS - *A Division of Hellmann Worldwide Logistics (Pty) Ltd***		
	48 Electron Avenue	V. Nunco, Managing Director	International and domestic logistics services,
	Isando, Gauteng	e-mail: vnunco@za.hellmann.net	customs clearing, EDI, warehousing.
	PO Box 3669	Keith Domoney, Director	Exporter: Yes on behalf of customers, worldwide
	Kempton Park, 1602	e-mail: kdomoney@za.hellmann.net	Employees: 143
		Tel: +27 (0)41 5862001	Quality Rating: ISO 9002/Dekra VDA 6.2
		Fax: +27 (0)41 5862007	
D	**HENKEL SA (Pty) Ltd**		
	Cnr. Potgieter & Bosworth	Colin Bowles, General Manager	Suppliers of formulated chemical products to the
	Streets, Alrode Ext 4	Marketing & Technical	automotive, automotive suppliers, steel, coil,
	Gauteng	e-mail: colin.bowles@za.henkel.com	aluminium, container, cold forming and appliance
	Private Bag X038	Percy Jacobs, Automotive Business	industries. Also suppliers of process chemical
	Wadeville, 1422	Development Manager	management systems. Phosphate products,
		e-mail: percy.jacobs@za.henkel.com	adhesive products, corrosion protection products,
		Ryk Bentz, Automotive Business	metal forming products, etc
		Unit Manager	Exporter: No
		e-mail: ryk.bentz@za.henkel.com	Employees: 80
		Tel: +27 (0)11 617 2400	Quality Rating: ISO TS16949:2002/VDA 6 (A/B)/
		Fax: +27 (0)11 864 9355	ISO 14001
A	**HESTO HARNESSES**		
	1 Gledhow Mill Road	Zan Pieters, Sales Engineer	Automotive wiring harnesses.
	Stanger, KwaZulu Natal	Tel: +27 (0)32 552 1001	Exporter: Yes
	PO Box 4763	Fax: +27 (0)32 552 5414	Export Enquiries: Zan Pieters
	Stanger, 4450	e-mail: zan@hesto.co.za	e-mail: zan@hesto.co.za
		Website: www.hesto.com	Employees: 1600
			Quality Rating: QS 9000/ISO 9002/Q1/TS 16949/
			ISO 14001
E	**HULAMIN**		
	Edendale Road	Frank Bradford, Marketing	Semi fabricated aluminium products, rolled products
	Pietermaritzburg	Director: Auto.	i.e. flat sheet and plate, coils, circles, and foil products.
	PO Box 74	e-mail: frank.bradford@hulamin.co.za	
	Pietermaritzburg, 3200		Aluminium - Foil
		Reginald Nyandeni, Marketing	
		Director: Foil	
		e-mail: reginald.nyandeni@hulamin.co.za	
			Aluminium - Flat Rolled Products
		Goodrich Kowane, Marketing	
		Manager: Automotive	
		e-mail: goodrich.kowane@hulamin.co.za	
		Cell: +27 (0)82 831 0892	
		Tel: +27 (0)11 453 1070	
		Fax: +27 (0)11 454 1419	

		Charle Leibbrandt, Market Manager	Extruded Products
		e-mail: charle.leibbrandt@hulamin.co.za	
		Cell: +27 (0)82 448 9424	Exporter: Yes
		Tel: +27 (0)33 395 6911	Export Enquiries: Goodrich Kowane/
		Fax: +27 (0)33 394 7395	Charle Leibbrandt (Extrusion)/Reginald Nyandeni (Foil)
			Quality Rating: SABS ISO 9001:1994/ISO 9001:
			ISO/TS16949:2002
			Rolled Products/Foil Mill ISO 9001:2000
			DNV Certified for Ship Building (Alloy 5083)
			Lloyds Registered for Ship Building (Various Alloys)
B	**H.W. SCHMIDT INDUSTRIALS (Pty) Ltd**		
	11 - 13 Suffert Street	Graham Dow, Finance &	Company has high-pressure aluminium die
	Pinetown, 3601	Commercial Manager	casting manufacturing facility and has the capacity
	PO Box 41	e-mail: gdow@reli-on.co.za	to produce high-pressure aluminium die cast
	Pinetown, 3600	Tel: +27 (31) 702 9321	components for the automotive component industry.
		Fax: +27 (31) 702 7513	Manufactures aluminium die cast toolbox and
		Website: www.reli-on.co.za	garden tool components. Aluminium toolbox
			received nomination for design award at Aluminium
			2006 Exhibition in Europe.
			Exporter: Yes
			Employees: 50
			Quality Rating: ISO 9002 (in progress)
	INA/FAG South Africa - *see SCHAEFFLER AUTOMOTIVE SOUTH AFRICA*		
B	**INERGY AUTOMOTIVE SYSTEMS South Africa (Pty) Ltd**		
	Plant 1 and Head Office	Sebastien Buhour, Managing Director	Plastic fuel tanks.
	10 Krokodildrift Avenue	Tel: +27 (0)12 250 9300	Exporter: No
	Industrial Area, Brits Ext 14	Fax: +27 (0)12 250 3444	Employees: 140
	PO Box 4533	e-mail:	Quality Rating: ISO TS 16949:2002 / ISO 14001:2004
	Brits, 0250	sebastien.buhour@inergyautomotive.com	OSHAS 18000
	Plant 2 - Uitenhage	Ray Heideman, Assembly Plant Manager	
	Nelson Mandela Bay	Tel: +27(0) 41 978 8150	
	Logistics Park, Erf 2051	Fax: +27(0) 41 978 8157	
	Jagtvlakte, Industrial Area	e-mail: ray.heideman@inergyautomotive.com	
	Despatch, 6220		
	Plant 3 - Durban	Peter Taylor, Assembly Plant Manager	
	2/4 Murray Field Park	Tel: +27(0) 31 902 6843	
	Prospecton Road	Fax: +27(0) 31 902 6961	
	Isipingo Beach	e-mail: peter.taylor@inergyautomotive.com	
	Durban, 4115		
A	**INTIER AUTOMOTIVE (South Africa)(Pty) Ltd**		
	Jonker Crescent	Peter Frueholz, Director	The company supplies door trim panels,
	West Bank	Tel: +27(0) 43 703 0500	interior and exterior components for OEMs.
	East London, 5201	Fax: +27(0) 43 731 1058	Employees: 6 (Direct)
	PO Box 14065	e-mail: peter.frueholz@intier.com	Quality Rating: TS 16949
	West Bank	Website: www.magna.com	
	East London, 5218		
SP	**IQUAD GROUP Limited**		
	PORT ELIZABETH		

	5 Mangold Street	Trevor Hayter, Chief Executive Officer	
	Newton Park, 6045	e-mail: trevorh@iquad.co.za	
	P.O. Box 27253	Tel: +27 (0)41 363 4169	
	Greenacres, 6057	Fax: +27 (0)41 363 5173	
		Website: www.iquad.co.za	
	GAUTENG		
	Woodmead Estate	Kevin Burke, Group Marketing Executive	
	No. 1 Woodmead Drive	e-mail: kevinb@iquad.co.za	
	Woodmead, 2128	Tel: +27 (0)11 797 8400	
	P.O. Box 2094	Fax: +27 (0)11 797 8816	
	Gallo Manor, 2052	Website: www.iquad.co.za	
	IQUAD GROUP Companies		
	Export Credit Exchange (Pty) Ltd		
	2C Royal Palm	James Whittle, Managing Director	The company provides the following services:
	6-8 Palm Boulevard	e-mail: jamesw@ece.co.za	online, Business to Business Exchange for
	Umhlanga New Town Centre	Tel: +27 (0)31 583 0900	trading Import Rebate Credit Certificates (IRCC's).
	Umhlanga, 4320	Fax: +27 (0)31 583 0909	
	Cluster Box 2886, Somerset	Website: www.ece.co.za	
	Park, Umhlanga, 4320		
	Indevco Business Consultants (Customs) (Pty) Ltd		
	2C Royal Palm	James Whittle, Managing Director	The company provides the following services:
	6-8 Palm Boulevard	e-mail: jamesw@indevco.co.za	- Customs audits
	Umhlanga New Town Centre	Tel: +27 (0)31 583 0900	- Duty rebates facilities
	Umhlanga, 4320	Fax: +27 (0)31 583 0909	- Tariff determinations
	Cluster Box 2886, Somerset	Website: www.indevco.co.za	- Trade agreement administration
	Park, Umhlanga, 4320		- Customs & excise registrations
			- ITAC permit and Duty relief applications
			- Customs refunds
	Indevco Business Consultants (Human Capital) (Pty) Ltd		
	5 Mangold Street	Greg Billson, Managing Director	The company promotes and processes the
	Newton Park, 6045	e-mail: gregb@indevco.co.za	Workplace Skills Development Support Programme
	PO Box 27253	Tel: +27 (0)41 363 4169	(WSDSP), a Department of Trade and Industry
	Greenacres, 6057	Fax: +27 (0)41 363 5173	(DTI) incentive that is administered by the
		Website: www.indevco.co.za	Department of Labour. We also advise clients on
			a range of training and human resource matters.
	Indevco Business Consultants (Incentives) (Pty) Ltd		
	5 Mangold Street	David Edwards, Managing Director	The company provides the following services:
	Newton Park, 6045	e-mail: davide@indevco.co.za	- Access to DTI Investment based incentives
	PO Box 27253	Tel: +27 (0)41 363 4169	- Turnkey service from application through to claim
	Greenacres, 6057	Fax: +27 (0)41 363 5173	submissions
		Website: www.indevco.co.za	- Performance based - no cure, no pay
	IQUAD Global Trade Solutions (Pty) Ltd		
	IQuad Place	Jeanique van der Mescht,	The company provides the following services:
	56 – 58 Mangold Street	Marketing Consultant	- MIDP claims processing
	Newton Park, 6045	e-mail: jeaniquek@indevco.co.za	- DA 190 preparation
	PO Box 27253	Tel: +27 (0)41 363 4169	- 521/536 Duty Recoveries
	Greenacres, 6057	Fax: +27 (0)41 363 5173	- Export process optimisation
		Website: www.indevco.co.za	

	IQUAD Technologies (Pty) Ltd		
	Woodmead Estate	Herman Louw, Managing Director	IQUAD Technologies provides a range of products
	No. 1 Woodmead Drive	e-mail: hermanl@iquad.co.za	and services for its clients focusing on exporters,
	Johannesburg, 2128	Tel: +27 (0)12 665 5840	importers and manufaters in South Africa.
	PO Box 66438,	Fax: +27 (0)12 665 5843	
	Highveld, 01692	Website: www.iquad.co.za	
	IQUAD Treasury Solutions (Pty) Ltd		
	Woodmead Estate	Willem Piek, Director	IQUADTS is a risk management company focusing
	No. 1 Woodmead Drive	e-mail: willemp@iquadts.co.za	on the management of foreign currency risk for
	Johannesburg, 2128	Tel: +27 (0)11 797 8445	importers and exporters in South Africa. The service
	PO Box 2094,	Fax: +27 (0)11 797 8485	includes the management of the foreign exchange
	Gallo Manor, 2052	Website: www.iquadts.co.za	exposures, administration support and structuring
			of a policy/strategy to meet the individual client
			company's requirements.
	IQUAD Verification Services (Pty) Ltd		
	Head Office:	Wade van Rooyen, Managing Director	The company provides Broad Based Black
	Port Elizabeth	e-mail: wadevr@iquad.co.za	Economic Empowerment (BBBEE) Verifications
	5 Mangold Street	Tel: +27 (0)41 363 4169	Services including:
	Newton Park, 6045	Fax: +27 (0)41 363 5173	- The evaluation of BBBEE Compliance
	PO Box 27253	Website: www.iquad.co.za	- The Issuing of Verification Certificates
	Greenacres, 6057		- BBBEE Scenario Analysis
			- Internal BBBEE Training
	Johannesburg Office	Zanele Ndwalane	
		Tel: +27 (0)11 797 8400	
	Cape Town Office	Stuart Parkin	
		Tel: +27 (0)21 447 3087	
	Durban Office	Linda Sewnarain	
		Tel: +27 (0)31 583 0900	
	East London	Garth Voight	
		Tel: +27 (0)43 743 5769	
B	**ISE (Southern African Division) (Pty) Ltd**		
	Plant 1 and Head Office		
	32 Piet Rautenbach Street	Paul Leonard, Chief Executive Officer	Pressed and welded structural body and
	Brits	e-mail: paull@innomotive.co.za	suspension components, wishbones, axle carriers,
	PO Box 668	Andries Cronje, Chief Financial Officer	axle assemblies, chassis assemblies, seat frame
	Brits, 0250	e-mail: andriesc@innomotive.co.za	assemblies, fuel tanks, catalytic converter
		Tel: +27 (0)12 381 3100	pressings, steering column assemblies, front/
	Plant 2	Fax: +27 (0)12 381 3196	rear modules and other safety critical suspension
	10 Pendoring Street	Website: www.innomotive.com	components to the OEM's in RSA and Germany.
	Brits, 0250		Press tool and die manufacturing and electro-phoretic
			painting facility.
			Export Enquiries: Paul Leonard
			Exporter: Yes
			Employees: 376
			Quality Rating: TS 16949:2002 / Ford Q1
			ISO 14001:2004 / ISO 9001:2000
B	**ISRINGHAUSEN of SA (Pty) Ltd**		
	14 Napier Road	Gordon Thompson,	Manufacture of fully upholstered seats for the
	Settlers Heights	General Manager Ops.	Commercial vehicle and related industries.
	East London, 5201	e-mail: gordon@isri.co.za	Exporter: Yes
	PO Box 762	Cell: +27 (0)82 775 2790	Export Enquiries: Gordon Thompson

	East London, 5200	Frances Wiggill,	Employees: 70+
		General Manager Finance	Quality Rating: TS 16949/ISO 14001/ISO 18001
		e-mail: frances@isri.co.za	
		Cell: +27 (0)83 453 8066	
		Dale Anton, Sales Executive	
		e-mail:dale@isri.co.za	
		Cell: +27 (0)83 269 1709	
		Tel: +27 (0)43 736 3545 (For all above)	
		Fax: +27 (0)43 736 1275 (For all above)	
	Unit 5, Lakeside	Gordon Thompson, General Manager Ops.	
	Industrial Park	Tel: +27 (0)11 397 8731	
	Cnr Kelly & Ackerman Streets	Fax: +27 (0)11 397 8745	
	PO Box 30430	Website: www.isri.co.za	
	Jet Park, 1469		
D	**JASCHKE METAL ENGINEERING cc**		
	12 Electron Road	André Bieske, Factory Manager	Manufacturers of aluminium components (engineering)
	Woodbrook,	Tel: +27 (0)43 736 1603	to the motor industry (specializing in air pipe assembly).
	East London, 5201	Fax: +27 (0)43 736 1482	Exporter: Yes
	PO Box 5524	e-mail: andrejaschke@iafrica.com	Employees: 21
	Greenfields, 5208		Quality Rating: ISO 9001:2000/TS 16949
B	**JOHNSON CONTROLS AUTOMOTIVE SA (Pty) Ltd**		
	Charles Goodyear	Jacques Minnie, Commercial Director	Manufacture leather car seat covers, JIT cockpit,
	Street, Uitenhage Industrial	Tel: +27 (0)41 995 4453	seat assembly.
	Uitenhage	Fax: +27 (0)41 991 1810	Exporter: Yes
	PO Box 1595	e-mail: jacques.minnie@jci.com	Export Enquiries: Jacques Minnie
	Uitenhage, 6229	Website: www.jci.com	Employees: 1300
			Quality Rating: Q1/TS 16949/ISO 14001
B	**JOST South Africa (Pty) Ltd**		
	2 Ossewa Street	Keith Turner, Managing Director	Manufacturers of fifth wheels for trucks and trailers,
	Chloorkop, Kempton Park	Tel: +27 (0)11 393 1784	distribution of JOST products and hydraulics for the
	PO Box 17725	Fax: +27 (0)11 393 1508	truck and trailer industry and other activities related
	Norkempark, 1631	e-mail: keith@jost.co.za	to the aforegoing.
		Website: www.jost.co.za	Exporter: Yes
			Export Enquiries: Keith Turner
			Employees: 62
			Quality Rating: DIN EN ISO 9001:2000 (TUV Cert)
B	**KAYMAC STRUCTURAL FOAM (Pty) Ltd**		
	18 Birmingham Road	Craig Skinner, National Sales Manager Automotive	Returnable packaging for the automotive supply chain.
	Willowton, 3201	Tel: +27 (0)33 387 1507	Fuel tanks, air ducts, design and development of
	PO Box 317	Fax: +27 (0)33 387 2911	plastic components for automotive application.
	Pietermaritzburg, 3200	e-mail: craigs@kayroto.co.za	Exporter: Yes
		Website: www.kayroto.co.za	Export Enquiries: Craig Skinner
			Employees: 164
			Quality Rating: ISO 14001/TS16949/Q1
D	**KLINGSPOR ABRASIVES South Africa (Pty) Ltd**		
	33 Brewery Street	Gunter Haacke, Managing Director	Manufacturers of abrasives.
	Isando, 1600	Tel: +27 (0)11 392 3030	Exporter: Yes
	PO Box 56	Fax: +27 (0)11 392 2040	Export Enquiries: Gunter Haacke
	Isando, 1600	e-mail: gunter.haacke@klingspor.co.za	Employees: 51
		Website: www.klingspor.co.za	

B	**KNORR-BREMSE (SA) (Pty) Ltd**		
	3 Derrick Road	A.W. Adlkofer, Managing Director	Complete air brake systems for heavy trucks/trailers/
	Spartan, Gauteng	e-mail: awa@mweb.co.za	specialised vehicles/locomotives/goods wagons/
	PO Box 2411	A. Chaffey, General Manager	mainline coaches/other rolling stock, industrial
	Kempton Park, 1620	e-mail: Ashley.Chaffey@knorr-bremse.com	pneumatic equipment.
		Tel: +27 (0)11 961 7800	Exporter: Yes
		Fax: +27 (0)11 975 1513	Export Enquiries: A. Chaffey
			Employees: 120
			Quality Rating: ISO 9001:2000
SP	**KPMG Inc.**		
	85 Empire Road, Parktown	Gavin Maile, Market Leader	Professional business advisors and auditors.
	Johannesburg	e-mail: gavin.maile@kpmg.co.za	Exporter: No
	Private Bag 9	Tel: +27 (0)11 647 7165	Employees: 180
	Parkview, 2122	Fax: +27 (0)11 647 6063	
		Website: www.kpmg.co.za	
D	**KULUNGILE METALS GROUP (Pty) Ltd**		
	Head Office		
	16 Quality Street	Sampie van Rooyen,	Processors and stockists of stainless steel, mild
	Isando, Gauteng	Chief Executive Officer	steel and aluminium for the automotive industry.
	PO Box 995	e-mail: sampiev@kulungile.co.za	Slitting, cut to length, pressing, laser cutting and
	Isando, 1600	Mike Spies, Executive Director	guillotining.
		e-mail: mikesp@kulungile.co.za	Exporter: Yes
	Plant	Tyrone Roothman, Executive Director	Export Enquiries: Mike Spies
	4 Martin Boulevard	e-mail: tyrone@kulungile.co.za	Employees: Approx. 120 (Auto.)
	Vanderbijl Park	Shima Nokaneng, Group	Quality Rating: ISO 9001:2000
	PO Box 997	Marketing Director	
	Vanderbijl Park, 1900	e-mail: shiman@kulungile.co.za	
		Website: www.kulungile.co.za	
	Branches:		
	Germiston	Tel: +27 (0)11 871 4600	
	Port Elizabeth	Tel: +27 (0)41 486 1868	
	Durban/Pinetown	Tel: +27 (0)31 710 6600	
	Richards Bay	Tel: +27 (0)35 797 3592	
	Cape Town	Tel: +27 (0)21 507 9600	
	Vanderbijlpark	Tel: +27 (0)16 988 9800	
	Isando	Tel: +27 (0)11 929 5000	
	KMG - Sheet Metal Service Centre		
	7-Drill Avenue	Gerrit Wahl, Divisional Director	Decoiling, stainless steel brushing, material
	Montague Gardens	Tel: +27 (0)21 551 5981	coating, guillotining, notching, marking,
	P O Box 37215	Fax: +27 (0)21 551 7708	bending and punching.
	Chempet, 7442	Website: www.kulungile.co.za	
B	**L&J TOOL & ENGINEERING WORKS (Pty) Ltd**		
	45 Beachgate Crescent	Rex Monda, Managing Director	Tool and die making, E-coating, metal pressings,
	Southgate Industrial Park	e-mail: rex@ljtools.co.za	sub-assemblies.
	Umbogintwini	Lucien Inghilterra, Technical Director	Exporter: Yes
	KwaZulu Natal	e-mail: lucien@ljtools.co.za	Employees: 145
	PO Box 12380	Tel: +27 (0)31 914 4294	Quality Rating: ISO 9001:2000
	Jacobs, 4026	Fax: +27 (0)31 914 4893	
A	**LEAR CORPORATION - South Africa**		

	Cnr. Helium & Fosfor	Giuseppe Tagliaferri, Director SA Operations	Manufacturing of leather seat covers for the
	Streets, Ext 2	e-mail: gtagliaferri@lear.com	automotive industry as well as seat assemblies.
	Rosslyn, 0200	Charl Weyers, Group Sales &	Exporter: Yes
	PO Box 911-1997	Marketing Manager	Export Enquiries: Charl Weyers
	Rosslyn, Pretoria, 0200	e-mail: cweyers@lear.com	Employees: 1600
		Tel: +27 (0)12 564 9300	Quality Rating: QS 9000/VDA 6.1/ISO 14001
		Fax: +27 (0)12 564 9351	
C	**LITHA COMPONENTS**		
	Lawrence Daubermann	Leon Fourie, Technical Advisor	Aluminium wheel accessories, aluminium high
	Crescent, Berlin Industria	Tel: +27 (0)43 685 2121	pressure die casting.
	Berlin, Eastern Cape	Fax: +27 (0)43 685 2207	Exporter: Yes
	PO Box 63	e-mail: litha@dinkyman.co.za	Export Enquiries: Leon Fourie
	Berlin, 5660	Website: www.lithacomp.co.za	Employees: 20
B	**LONGLIFE EXHAUST & TUBE - *ETC Components cc t/a***		
	70 Marseilles Crescent	Bruce Jackson, Sales & Marketing	Stainless steel silencers and components, metal
	Briardene Industrial Park	Cell: +27 (0)79 762 0000	pressings.
	Briardene, KwaZulu Natal	Tel: +27 (0)31 563 2255	Exporter: Yes
	PO Box 40584	Fax: +27 (0)31 573 1994	Employees: 38
	Redhill, Durban, 4071	e-mail: bruce@powerflowexhausts.com	Quality Rating: TUV ISO 9000:2001
		Website: www.powerflowexhausts.com	
	LuK AFRICA (Pty) Ltd - *see Schaeffler Automotive South Africa*		
BC*	**LUMOTECH (Pty) Ltd *(formerly Hella (South Africa) (Pty) Ltd)***		
	1 Fitzpatrick Street	E.W. Ropertz, Managing Director	Automotive lighting - headlights, taillights,
	Niven Industrial Township	e-mail: wolfgangr@lumotech.co.za	sundry and signal lights, hooters, plastic mouldings
	Uitenhage, 6229	Tel: +27 (0)41 995 3111	light metal pressings, energy saving streetlights
	PO Box 277	Fax: +27 (0)41 995 3001	Exporter: Yes
	Uitenhage, 6230	Website: www.lumotech.co.za	Export Enquiries: Mike Ford - OE Sales Manager
			e-mail: mikef@lumotech.co.za
			Employees: 400
			Quality Rating: ISO 14001:2004/TS 16949:2002/
			ISO 9001:2000 & Q1
B	**MAGNA MIRRORS South Africa (Pty) Ltd**		
	Cnr. Charel Uys Drive &	H. Arnold, General Manager	Motor vehicle rear view mirrors - interior/exterior
	Neil Hare Road, Atlantis	e-mail: Herbert.Arnold@eu.magna.com	(painted and unpainted). Door handles and
	Western Cape, 7349	Tel: +27 (0)21 577 1440	sunvisors.
	PO Box 1576	Fax: +27 (0)21 577 1468	Employees: 70
	Dassenberg, 7350		Quality Rating: TS16949/ISO 14000
A	**MAGNETI MARELLI South Africa (Pty) Ltd**		
	99 Makriel Street	Claudio Di Martina, General Manager	Manufacturers and suppliers of catalytic
	Wadeville, 1428	Tel: +27 (0)11 827 0440	converters to vehicle assembly plants.
	PO Box 14143	Fax: +27 (0)11 827 0882	Exporter: Yes
	Wadeville, 1422	e-mail: cdimartina@wvillemarelli.co.za	Export Enquiries: Giulio Fotia
			Employees: 50
			Quality Rating: ISO TS 16949/QS 9000/VDA 6.1/
			ISO 14001
D	**MARIO LEVI MANUFACTURING SA (Pty) Ltd**		
	Cnr. Lower Magennis &	William Seal, Deputy General Manager	Manufacturer of automotive and furniture leather.
	Mel Brooks Avenue	Tel: +27 (0)41 995 6747	Exporter: Yes

	Uitenhage, 6229	Fax: +27 (0)41 992 1163	Employees: 166
	PO Box 3063	e-mail: william@mariolevi.co.za	Quality Rating: ISO 9001:2000/ISO/TS 16949:2002
	Riebeekhoogte, 6231	Website: www.mariolevi.co.za	ISO 14001:2004
B	**MAXE (Pty) Ltd**		
	2 Cherry Road	Steve Howard, Managing Director	Manufacturers of roll bars, nudge bars, side steps,
	Pinetown, 3610	e-mail: steve@maxe.co.za	rear steps, vent tubes - all mainly from stainless steel.
	KwaZulu Natal	Clayton Wait, New Business	Exporter: Yes
	PO Box 1064	Development Manager	Employees: 170
	New Germany, 3620	e-mail: clayton@maxe.co.za	
		Tel: +27 (0)31 713 2200	
		Fax: +27 086 509 3185	
B	**METAIR INVESTMENTS Limited**		
	Wesco House	T. Loock, Managing Director	Holding company of: Hella South Africa (Pty)
	10 Anerley Road	e-mail: tloock@metair.co.za	Ltd, Hesto Harnesses (Pty) Ltd, Smiths Manufacturing
	Parktown, 2193	Tel: +27 (0)11 646 3011	(Pty) Ltd, Smiths Plastics (Pty) Ltd, Metindustrial
	PO Box 2077	Fax: +27 (0)11 646 3102	(Pty) Limited with Divisions: First National
	Saxonwold, 2132	e-mail: info@metair.co.za	Battery Division and Supreme Spring Division.
		Website: www.metair.co.za	Minority shareholding in Tenneco Automotive
			Holdings (SA)(Pty) Ltd, Valeo (SA) (Pty) Ltd.
			Products: Front end modules, shock absorbers,
			struts, control arms, lighting products, horns, wiring
			harnesses, industrial and automotive batteries,
			heaters, plastic mouldings (including painting and
			metalising), air conditioners, condensers, radiators,
			hoses and pipes, blower motors, cooling fans, leaf
			and coil springs, stabiliser and torsion bars.
			Exporter: Yes (see individual subsidiaries)
			Export Enquiries: T. Loock
A	**MICHEL THIERRY South Africa (Pty) Ltd**		
	203 Cape Marina	Haroldo Arendt, Site Director	The company provides fabrics for the global automotive
	Bude Street	Tel: +27 (0)41 583 5319	industry (seats and door panels).
	Summerstrand, 6001	e-mail:	Exporter: No
	PO Box 20251	haroldo.arendt@michelthierry.com.br	Employees: 1
	Humewood	Website: www.michelthierrygroup.com	Quality Rating: ISO/TS 16949:2002/ISO 9001:2000
	Port Elizabeth, 6013		
B	**MICROFINISH MANUFACTURING (Pty) Ltd**		
	5 Wareing Road	A.M. Goodman, Managing Director	Valve guides, valve seat inserts, small end bushes,
	Pinetown, 3610	Tim Harris, Financial Director	sintered products.
	PO Box 1074	Tel: +27 (0)31 717 3700	Exporter: Yes
	Pinetown, 3600	Fax: +27 (0)31 701 4006	Export Enquiries: A.M. Goodman
		e-mail: agoodman@microfinish.co.za	Employees: 248
		Website: www.microfinish.co.za	Quality Rating: TS 16949/ISO 14001/FORD Q1
A	**NEDSCHROEF JOHANNESBURG (Pty) Ltd**		
	Paul Smit Street	Russell Hall, Managing Director	Specialize in cold forming of steel wire rod to customers
	Boksburg North	e-mail: russellh@nedschroefsa.co.za	drawing requirements (capacity range from 6.0mm
	PO Box 6297	Swb: +27 (0)11 917 5201	in diameter to 35.0mm in diameter and 230mm
	Dunswart, 1508	Exec.: +27(0)11 898 3401	long); export 43% of our production to automotive
		Sales: +27(0)11 898 3419	customers in Europe, locally supply OEM, First
		Fax: +27(0)11 917 2831	and Second Tier manufacturers, Suppliers to mining,

			rail and construction industries.
			Exporter: Yes
			Employees: 141
			Quality Rating: ISO TS 16949:2002
B	**NGK SPARK PLUGS (South Africa)(Pty) Ltd**		
	Bantry Park	John Gibson, Managing Director	Manufacturers of NGK spark plugs and glow plugs.
	41 Jansen Road	Tel: +27 (0)11 418 7900	Employees: 65
	Jet Park, Gauteng	Fax: +27 (0)11 418 7930	Quality Rating: ISO 14000/VDA6/ISO TS 16949 (in
	PO Box 8156	e-mail: jgibson@ngkntk.co.za	progress)
	Elandsfontein, 1406		
SP	**ORACLE CORPORATION South Africa**		
	Woodmead North	Geoffrey Francis, Sales	Supplier of products/services to the automotive
	Office Park	Consulting Manager	industry. Oracle Corporation is represented in 145
	54 Maxwell Drive	Tel: +27 (0)11 319 4000	countries worldwide. They are the world's largest
	Jukskeiview, Sandton	Fax: +27 (0)11 564 4600	Enterprise Software Application vendor, and provide
	Private Bag X85	e-mail: geoffrey.francis@oracle.com	IT solutions to various industries, including the
	Halfway House, 1685	Website: www.oracle.com/za	automotive Industry. Their value proposition is to
			provide scalable, flexible solutions tailored to meet
			the specific requirements of the automotive industry.
			Exporter: No
B	**PABAR (Pty) Ltd**		
	7 Fransen Street	V. Barbaglia, Managing Director	Metal pressings, roll formed profiles and
	Chamdor, Krugersdorp	M. Barbaglia, Manufacturing Director	assemblies for the motor industry. A large variety of
	PO Box 4245	C. Wilson, General Manager	non-automotive products.
	Witbeeck 1729	Tel: +27 (0)11 762 1266	Exporter: Indirect (OE)
		Fax: +27 (0)11 762 1260	Export Enquiries: C. Wilson
		e-mail: info@pabar.co.za	Employees: 57 (Auto.)
		Website: www.pabar.co.za	Quality Rating: ISO TS 16949:2002
E	**PALOGIX INTERNATIONAL (Pty) Ltd**		
	Ground Floor, Block F	Peter Friedman, Managing Director	Rental and supply of plastic returnable, reusable
	Pinmill Farm	e-mail: pfriedman@palogix.com	Value added services include: On-site management,
	164 Katherine Street	Chris Allen, Financial Manager	tracking and scanning. Key products: collapsible pallet
	Sandown 2031	e-mail: callen@palogix.com	pallets, and tote boxes. Customised reusable packaging
	PO Box 785359	Dan Friedman, Project Manager	solutions. Products can be sourced and tailored for
	Sandton 2146	e-mail: dfriedman@palogix.com	needs.
		Tel: +27 (0)11 262 3015	Exporter: No
		Fax: +27 (0)11 262 3056	Employees: 15
		Website: www.palogix.com	
A	**PASDEC AUTOMOTIVE TECHNOLOGIES (Pty) Ltd**		
	94 Hendrik Verwoerd	Kevin Pather, Chief Executive Officer	Wiring harnesses.
	Drive, Brits, 0250	Tel: +27 (0)12 250 2910	Exporter: Yes
	PO Box 2218	Fax: +27 (0)12 250 2663	Export Enquiries: Kevin Pather
	Brits, 0250	e-mail: kpather@pasdec.co.za	Employees: 449
		Web site: www.pasdec.co.za	Quality Rating: TS 16949
B	**PFK ELECTRONICS (Pty) Ltd**		
	Autowatch	Gary Stanton, Managing Director	Designers and manufacturers of electronic
	(Head Office/Factory)	Colin Snyman, Group Sales &	vehicle security systems, CANBus based
	488 Umbilo Road	Marketing Director	alarms and telematic systems, Alcolock
	Durban, 4001	e-mail: colins@pfk.co.za	Breathalyzer based immobilizers, comfort

	PO Box 3660	Manuel Ferreira, Business	modules, GSM/GPS based tracking systems,
	Durban, 4000	Development Manager	alarms, immobilizers, central locking modules,
		e-mail: mferreira@pfk.co.za	battery backed sirens and sensors.
		Tel: +27 (0)31 274 7200	Exporter: Yes
		Fax: +27 (0)31 205 4324	Employees: 300
		General e-mail: info@pfk.co.za	Quality Rating: ISO TS 16949/ISO 14001
		Website: www.pfk.co.za	
B	**Pi SHURLOK (Pty) Ltd - *Formerly Control Instruments Shurlok (Pty) Ltd***		
	28 Wiganthorpe Road	Sean Rogers, Managing Director	Manufacture and design of drivetrain electronic
	Willowton	William Murray, Business Dev. Manager	systems, comfort electronic modules, door
	Pietermaritzburg, 3201	e-mail:	control modules, vehicle security systems,
	PO Box 1252	william.murray@pi-shurlok.co.za	central locking systems, keyless entry systems,
	Pietermaritzburg, 3200	Tel: +27 (0)33 845 4700	instrument clusters, Telematics CANBus
		Fax: +27 (0)31 571 0825	controllers and various plastic parts.
		Website: www.pi-shurlok.com	Consulting services.
			Exporter: Yes
			Employees: 1000
			Quality Rating: ISO 9001/VDA 6 (BMW & VWSA)
			NOSA 3 Star Safety/ISO TS 16949/ISO 14001
			Q1/ISO 15504 (Spice)
C	**PINETOWN PRECISION ENGINEERING cc**		
	Unit No 1 Pineside	Heath Redman, Member	Manufacturers of aftermarket cylinder heads
	Industrial Park	Tel: +27 (0)31 705 3821	for heavy diesel engines.
	Pineside Road	Fax: +27 (0)31 705 3679	Exporter: Yes
	New Germany, 3620	e-mail: heathr@iafrica.com	Employees: 32
	PO Box 487		Quality Rating: ISO 9001:2000 (Dekra Germany)
	New Germany, 3620		
B	**PITCHLINE ENGINEERING (Pty) Ltd**		
	32 Henwood Road	Alan Oldridge, Managing Director	Spare parts manufacturer for various industries.
	Pinetown, 3610	Tel: +27 (0)31 701 6891	The company manufactures air brake repair kits under
		Fax: +27 (0)31 701 0551/709 3886	the Manumark label.
		e-mail: alan@pitchline.com	Exporter: Yes
		Website: www.pitchline.com	Employees: 27
			Quality Rating: DQS ISO 9001:2000
D	**PLASTAMID (Pty) Ltd**		
	43 Coleman Street	Gavin Gerber, Managing Director	Engineering plastics polymers and compounds.
	Elsies River, 7490	Marissa Le Roux, Technical Manager	Products compounded by Plastamid:
	PO Box 59	Tel: +27 (0)21 590 1000	DuPont: Zytel® and Minlon® Polyamides. Dow:
	Elsies River, 7480	Fax: +27 (0)21 592 1409	INSPiRE® Polypropylene compounds. Plastamid:
		e-mail: plastamid@plastamid.co.za	Plastamid™ Polyamide compounds, Propacomp™
		Website: www.plastamid.co.za	Polypropylene compounds, PropaForm™ Hi
			performance nucleating concentrate for PP,
			PlastExcel™ SEB-S thermoplastic elastomer
			compounds ABS, SAN, ASA compounds, Poly-
			carbonate compounds, Thermoplastics elastomer
			compounds, Ethylene copolymer compounds,
			Polyethylene compounds, specialty compounds, PET
			polymer. Traded products: DuPont: Polyamides,
			high temperature Polyamides, Specialty Polyamides,
			Acetal, Thermoplastics, Polyesters (PBT, PET),
			Specialty Polyesters, Liquid crystal polymers (LCP),

			High performance thermoplastics elastomers
			(Polyester/ether & acrylate types), Speciality poly-
			olefin copolymers, EVA, Ionomers. **Other**
			representations: Polycarbonate PC, PC/ABS, ABS,
			HIPS, TPE-S, TPE-V, PPE, PET, PETG.
			Exporter: Yes
			Employees: 130
			Quality Rating: ISO 9001:2000/ISO TS 16949 (2007)
B	**PRECISION PRESS (Pty) Ltd**		
	Cnr. Sacks Circle & Talana	Simon Ledgerwood, Managing Director	Metal pressings, sub-assemblies, deep drawn
	Street, Bellville South	Tel: +27 (0)21 951 2866	pressings, tool design and manufacture.
	PO Box 1540	Fax: +27 (0)21 951 6641	Exporter: Indirect
	Sanlamhof, 7532	e-mail: simon@precisionpress.co.za	Employees: 52
		Website: www. precisionpress.co.za	Quality Rating: ISO 9001:2000/ISO TS16949
C	**PREGARE MANUFACTURING cc**		
	Cnr Hardy Millar &	Wally Weber, Owner	The company manufactures insulation pads and
	Hennie Steyn Streets	Tel: +27 (0)12 541 0572	carpet related materials for the automotive industry.
	Rosslyn, 0020	Fax: +27 (0)12 541 0573	Exporter: No
	PO Box 3263	e-mail: wally@pregare.com	Employees: 41
	Rosslyn, 0200	Website: www.pregare.com	Quality Rating: ISO 9000 (in progress)
SP	**QAD South Africa**		
	Bradenham Hall	Natascha Le Roux, New Business	QAD is dedicated to providing manufacturers with the
	Mellis Road	Sales Executive: Automotive	latest, most comprehensive software to enable lean
	Rivonia, 2128	Tel: +27 (0)11 461 6900	manufacturing and collaboration across the supply
	PO Box 5509	Fax: +27 (0)11 461 6969	chain. QAD Inc has offices in 26 countries. Head-
	Rivonia, 2128	e-mail: ntl@qad.com	quarters in Carpinteria, California, USA. QAD
		Website: www.qad.com	supply MMOG/LE training and consulting services.
			Employees: 45
			Quality Rating: ISO 9001
B	**Q TEC MOULDING (Pty) Ltd**		
	17 Kenwil Road	Tom du Toit, Managing Director	Manufacturers of injection moulded plastic components
	Okavango Park, Brackenfell	Tel: +27 (0)21 982 8662	for the automotive, agricultural and engineering markets.
	Cape Town	Fax: +27 (0)21 982 6941	Exporter: Yes, via OEMs
	PO Box 662	e-mail: tom@qtec-moulding.com	Employees: 30
	Cape Gate, 7562		Quality Rating: VDA 6.3(BMWSA)/ISO 9001:2000
B	**RAMSAY ENGINEERING (Pty) Ltd**		
	14 Lincoln Road	Andrew Turner, Managing Director	The design, development and turn key manufacturing
	Woodlands	Tel: +27 (0)33 387 1575	of metal and plastic components and sub-assemblies
	Pietermaritzburg	Fax: +27 (0)33 387 4535	for the automotive, construction, agricultural and
	KwaZulu Natal	e-mail: andrew@ramsay.co.za	security industries.
	PO Box 991	Website: www.ramsay.co.za	Exporter: 2nd Tier exporters only
	Pietermaritzburg, 3200		Employees: 350
			Quality Rating: TS 16949:2002/ISO 14000
A	**RAND YORK CASTINGS (Pty) Ltd**		
	Suite 33, Umhlanga Plaza	Justin Corbett, Joint CEO	Manufacturers of OEM Grey Iron and SG beneficiated
	4 Lagoon Drive	Tel: +27 (0)31 561 1023	machine castings (e.g. Eaton Shift Bar Housing).
	Umhlanga Rocks, 4320	Fax: +27 (0)31 561 3725	Supplier of special steels to the automotive industry.
	PO Box 349	e-mail: justin@randyork.com	Long products (that are normally beneficiated) such
	Umhlanga Rocks, 4320		as drawn, heat treatment, peeling, turned, etc. Forging

			supplier.
			Exporter: Yes
			Employees: 134
			Quality Rating: BSI ISO 9001:2000
B	**RG BROSE AUTOMOTIVE COMPONENTS (Pty) Ltd**		
	6 Spruit Avenue, Brits	Stefano Gulmini, Managing Director	Manufacturers of window regulators, door systems,
	Industrial Area, Brits	Tel: +27 (0)12 250 2384	closure systems, seat systems.
	PO Box 899	Fax: +27 (0)12 250 2723	Exporter: Via OEMs
	Brits, 0250	e-mail: stefano.gulmini@rgbrose.co.za	Employees: 150
		Website: www.brose.com	Quality Rating: ISO TS 16949:2002/ISO 14001:2003
B*	**ROBERT BOSCH (Pty) Ltd**		
	33 Piet Rautenbach Street	F. Folz, Managing Director	Starter motors, alternators, wiper systems, wiper
	Industrial Sites	William Nortje, Director OE Sales	motors, fan motors, blower motors, electronic
	Brits, 0250	Tel: +27 (0)12 381 3444 (W. Nortje)	control units for fuel injection/engine
	PO Box 348	Tel: +27 (0)12 381 3300	management, vehicle security systems.
	Brits, 0250	Fax: +27 (0)12 250 2646	Brake system parts.
			Exporter: Yes
			Export Enquiries: William Nortje
			Employees: 925
			Quality Rating: QS 9000/ISO 9001/VDA 6.1/
			ISO 14001/TS 16949 / Ford Q1
D	**ROBOR (Pty) Ltd - *Precision Tube Division***		
	233 Barbara Road	Bob Harvey, Sales and Marketing Manager	Manufacturers of precision carbon steel and
	Elandsfontein, Gauteng	Tel: +27 (0)11 971 1853	stainless tube and value added services including
	PO Box 1229	Fax: +27 (0)11 388 2949	cutting, bending, swaging and end forming.
	Isando, 1600	e-mail: BobH@robor.co.za	Exporter: Yes
		Website: www.robor.co.za	Employees: 340
			Quality Rating: ISO TS 16949:2002/ISO 9002:1994
B	**S A DIE AND PATTERN CO (Pty) Ltd**		
	21 Isando Road,	Jonathan Victor, Managing Director	Manufacturers of metal pressings and assemblies.
	Isando, Gauteng	Tel: +27 (0)11 974 1169	Exporter: No
	PO Box 106, Isando, 1600	Fax: +27 (0)11 974 4002	Employees: 61
		e-mail: jonathan@sadiepattern.co.za	Quality Rating: ISO 14001:2005, ISO 9001:2000,
			ISO/TS 16949:2002, Q1
SP	**SAFCOR PANALPINA**		
	Harbour View	Bruce Thoresson, Regional Director	The company provides international supply chain
	Oak Worth Drive	Eastern Cape	services including system integration, clearing
	Port Elizabeth, 6001	Tel: +27 (0)41 501 3200	and forwarding, logistics, supply chain
	PO Box 506	Fax: +27 (0)41 501 3319	management and consultancy as well as
	Port Elizabeth, 6000	e-mail: brucet@safcorpanalpina.co.za	financial services.
		Website: www.safcorpanalpina.co.za	Exporter: Yes
			Employees: 1197
			Quality Rating: ISO 9001:2000
	SAFETY TRANSPORT MIRRORS (Pty) Ltd - *see Magna Mirrors SA (Pty) Ltd*		
B	**SAS AUTOMOTIVE RSA (Pty) Ltd**		
	Automotive Supplier Park	Johan Andrew, Managing Director	Integrated cockpit and front end modules.
	30 Helium Street	Tel: +27 (0)12 564 5600	Exporter: No
	Rosslyn, Pretoria	Fax: +27 (0)12 564 5601	Employees: 104

	PO Box 911-236	e-mail:	Quality Rating: ISO TS 16949/ISO 14001
	Rosslyn, 0200	johan.andrew@pretoria.sas-automotive.com	
		Website: www.sas.automotive.com	
	SCHAEFFLER AUTOMOTIVE SOUTH AFRICA		
BD	***INA/FAG Division***		
	58-64 Burman Road	Len Terblanche, Managing Director	Engine components incl. cylinder head and belt
	Deal Party Estate	Richard Trojak, Key Account Manager	drives, wheel bearings incl. hub assemblies.
	Port Elizabeth, 6012	Tel: +27 (0)41 407 5000	Components for drive shafts, propshafts, gearboxes
	PO Box 9045	Fax: +27 (0)41 407 5138	and steering columns. Bearings - needle roller,
	Estadeal, 6012	e-mail: richard.trojak@schaeffler.com	linear, ball, spherical plain, tapered roller,
			cylindrical roller and plain.
			Employees: 12
			Exporter: Yes Sub Sahara Africa
			Export Enquiries: Richard Trojak
			Quality Rating: Q1 2002/ TS 16949:2002/ ISO 14001
B*	***LuK Division***		
	58-64 Burman Road	Len Terblanche, Managing Director	Clutches for passenger, commercial and heavy duty
	Deal Party Estate	Ron Maclean, Key Account Manager	vehicles.
	Port Elizabeth, 6012	Tel: +27 (0)41 407 5000	Employees: 500
	PO Box 9045	Fax: +27 (0)41 407 5109	Exporter: Yes
	Estadeal, 6012	e-mail: len.terblanche@schaeffler.com	Export Enquiries: Len Terblanche
			Quality Rating: Q1 2002/ TS 16949:2002/
			ISO 14001/ OHSAS18001
B	**SCHRADER SOUTH AFRICA (Pty) Ltd**		
	1 Dombeya Street	John Farrell Acton, Managing Director	The company manufactures a range of turned and
	Braelyn, East London	Tel: +27 (0)43 700 6200	pressed parts for the OE and Aftermarket.
	PO Box 1760	Fax: +27 (0)43 743 6416	Exporter: No
	East London, 5200	e-mail: john@schrader.co.za	Employees: 98
		Website: www.schrader.co.za	Quality Rating: TS 16949
E	**SECURI-LID *(HIL INDUSTRIES (Pty) Ltd t/a)***		
	24 Brassel Street	Scott Woods, Factory Manager	The company manufactures aluminium shutter load
	North End, Port Elizabeth	e-mail: scott@securi-lid.co.za	body covers for LCVs and aluminium roller shutter
	PO Box 27438	Nikki Whittal, Business Administrator	doors for commercial vehicles.
	Greenacres, 6057	e-mail: nikki@securi-lid.co.za	Exporter: In planning stage
		Tel: +27 (0)41 484 3140	Employees: 5
		Fax: +27 (0)41 484 2105	
		Website: www.securi-lid.co.za	
A	**SENIOR AUTOMOTIVE SA (Pty) Ltd**		
	11 Thor Circle	Anthony Mancini, Managing Director	Stainless steel flexible exhaust decouplers and
	Viking Place	Tel: +27 (0)21 532 5300	load support joints and exhaust gas
	Thornton, 7460	Fax: +27 (0)21 532 5310	recirculation tubes.
	PO Box 476	e-mail: amancini@seniorauto.co.za	Exporter: Yes
	Eppindust, 7475		Employees: 270
			Quality Rating: ISO 9001- 2000/ISO TS 16949-2002/
			ISO 14001
B	**SHATTERPRUFE - *A Division of PG Group (Pty) Limited***		
	1 Armourplate Road	Dr Dino Petrarolo, Managing Director	Laminate windscreens, toughened door and rear
	Struandale	e-mail: dpetrarolo@shatterprufe.co.za	**light** glasses and cab sliders for the OE/domestic/
	Port Elizabeth, 6001	Bob Jamieson, Supply Chain Director	P&A / export markets.

	PO Box 810	e-mail: bjamieson@shatterprufe.co.za	Exporter: Yes
	Port Elizabeth, 6000	Steven Lurie, Sales &	Export Enquiries: Steven Lurie/Bob Jamieson
		Marketing Director	Employees: 1390
		e-mail:slurie@shatterprufe.co.za	Quality Rating: TS 16949/QS 9000/ISO 9000/
		Tel: +27 (0)41 405 3200	VDA 6/SABS/E-Mark Homologation/USA ANSI Z26
		Fax: +27 (0)41 405 3404	
		Website: www.shatterprufe.co.za	
B*	**SMITHS MANUFACTURING (Pty) Ltd - *Also DUNAIR Superior Car Air Conditioning***		
	Assembly Plant	Kenneth Lello, Managing Director	Automotive airconditioning systems, heaters,
	10 Pineside Road	Tel: +27 (0)31 719 4911	blowers, evaporators, multiflow/serpentine & F/T
	New Germany, 3610	Fax: +27 (0)31 719 4241	condensers, radiators, engine cooling fan
	PO Box 181	e-mail: Ken.Lello@smiths.co.za	assemblies, receiver driers, refrigerant pipes
	Pinetown, 3600		and hoses, Dunair aftermarket airconditioners
			and vehicle cooling modules.
	Manufacturing Plant		Exporter: Yes
	2 Progress Road		Export Enquiries: Mr Fregust Ziemkendorf
	New Germany, 3610		Employees: 971
	PO Box 181		Quality Ratings: ISO 9001:2000, ISO 14001:2004
	Pinetown, 3600		ISO/TS 16949:2002, OHSAS 18001:1999 -
			Certification body: Underwriters Laboratories (UL)
B*	**SMITHS ELECTRIC MOTORS (Pty) Ltd**		
	Motor Plant	Kenneth Lello, Managing Director	Manufacturer for both automotive and non-
	10 Pineside Road	Tel: +27 (0)31 719 4911	automotive applications, including 2 pole electric
	New Germany, 3610	Fax: +27 (0)31 719 4241	motors, blowers and engine cooling fans. Motors
		e-mail: Ken.Lello@smiths.co.za	are developed to suit individual customer
			requirements.
			Employees: 26
			Quality Ratings: ISO 9001:2000, ISO 14001:2004
			ISO/TS 16949:2002, OHSAS 18001:1999 -
			Certification body: Underwriters Laboratories (UL)
A*	**SMITHS PLASTICS (Pty) Ltd**		
	Injection Moulding Plant	William Hilditch, Managing Director	Plastic injection mouldings, high frequency plastics
	21 Shepstone Road	Tel: +27 (0)31 719 4601	welding, gas injection moulding, colour and soft touch
	New Germany, 3610	Fax: +27 (0)31 719 4690	paint facility, interior & exterior trim components,
		e-mail:	engine compartment components and chromed
	Assy/Paint/Chrome	William.Hilditch@smithsplastics.co.za	plastic injection moulded parts.
	2 Pineside Road		Employees: 1035
	New Germany, 3610		Quality Ratings: ISO 14001:2004/ISO/TS 16949:2002
	PO Box 181		Certification body: Underwriters Laboratories (UL)
	Pinetown, 3600		
	Plastics Customer Centre		
	21 Shepstone Road		
	New Germany, 3610		
	Automould (Pty) Ltd	Brent Latter, Managing Director	Plastic Injection mouldings, high frequency plastic
	25 Hillclimb Road	Tel: +27 (0)31 792 4320	welding, gas assist injection moulding, interior &
	Westmead, 3610	Fax: +27 (0)31 700 3871	exterior trim components, engine compartment
		e-mail: brent@automould.co.za	components, taillights, domestic appliance components,
			emergency light components, plastic decoration 2D &
			Employees: 262
			Quality Ratings: ISO 9001:2000/ISO 14001:2004/

			ISO/TS 16949:2002. Certification body: SABS
	Ariston Plastics	Phillip Mostert, Director	Manufacture plastic injection moulded parts with
	401 Chevrolet Street	Tel: +27 (0)41 4612952	varying degrees of complexity, sizes and materials.
	Markman	Fax: +27 (0)41 4611163	Ariston moulds interior & exterior parts for the
	Port Elizabeth	e-mail: philip.mostert@ariston.co.za	motor industry on injection moulding machines
			ranging from 20T to 1800 tonnes. Production is
			supported by the assembly lines, toolroom and
			maintenance departments.
			Quality ratings: ISO 14001/TS16949
BD	**SP METAL FORGINGS (Pty) Ltd**		
	70 Paul Smit Street	K. Manners, Managing Director	Precision Forged automotive components i.e. steering
	Boksburg North	Tel: +27 (0)11 894 7771	components, linkages, engine parts, towballs,
	Johannesburg	Fax: +27 (0)11 894 6255	towing lugs, exhaust manifold flanges.
	PO Box 6694	e-mail: info@spforge.co.za	Exporter: Yes
	Dunswart, 1508		Export Enquiries: K. Manners
			Employees: 100
			Quality Rating: ISO 9001:2000
E	**SPECIALISED METAL COATINGS (SMC)**		
	112 Leicester Road	John Shaw, General Manager	Electro-plating, electro-coating and powder coating
	Mobeni, Durban	Tel: +27 (0)31 462 7581	of metal components i.e. bumpers, towbars, brackets,
	PO Box 32068	Fax: +27 (0)31 462 5391	nuts, bolts, sockets, etc. A corrosion testing laboratory
	Mobeni, 4060	e-mail: johnshaw@metalcoatings.co.za	will be fully operational by end of July 2008 for
		Website: www.amc-sa.co.za	customer compliance testing.
			Exporter: No
			Employees: 29
			Quality Rating: ISO 9001:2000/ISO 14001
E	**SPECTRA GROUP OF COMPANIES**		
	Head Office	David Bevan, Managing Director	***1. Spectra Carbide Tooling Technology***
	24 Desmond Street	Tel: +27 (0)41 4031500	Specialists in technology information for drilling,
	Korsten	Fax: +27 (0)41 451 3536	tapping, boring, milling, turning, grooving,
	Port Elizabeth, 6050	e-mail: spectra@spectra-sa.co.za	threading and broaching solutions. Administer
	PO Box 2631	Website: www.spectra-sa.co.za	Tool Management Systems, including vending
	Newton Park, 6056		machines, at customers' premises.
			Tel: +27 (0)41 403 1500
			Fax: +27 (0)41 451 3536
			e-mail: spectra@spectra-sa.co.za
			2. Spectra Metal Cutting Fluids & Lubricants
			Specialists in supplying metal cutting fluids and
			lubricants including maintenance and monitoring
			equipment to the highest health and environ-
			mental standards for costs efficiency and
			productivity. Administer Fluid Management
			Systems at customers' premises.
			Tel: +27 (0)41 403 1500
			Fax: +27 (0)41 451 3536
			e-mail: lubricants@spectralubricants-sa.co.za
			3. Spectra Mapal Tool Manufacturing & Service
			Centre. Specialists in precision regrinding and
			Manufacturing of new and used carbide cutting
			tools to the latest specifications & geometries.
			Tel: +27 (0)21 577 3929

			Fax: +27 (0)21 577 3932
			e-mail: spectramapal@spectramapal-sa.co.za
B*	**SPICER AXLE SOUTH AFRICA**		
	Brickfields Road	Ross Portolesi, General Manager	Rear driving axles and propeller shafts for light and
	Uitenhage, 6230	e-mail: ross.portolesi@dana.com	medium commercial vehicles.
	PO Box 388	Gordon Nelson, Sales Manager	Exporter: Yes
	Uitenhage, 6230	e-mail: gordon.c.nelson@dana.com	Export Enquiries: Gordon Nelson
		Tel: +27 (0)41 994 7223	Employees: 407
		Fax: +27 (0)41 994 7370	Quality Rating: ISO 9001/OS 9000/ISO 14001/
			Q1/TS 16949/ISO 18000 (in progress)
B	**STATELINE PRESSED METAL**		
	36 Stephenson Road	B.W. Wienekus, Financial Director	Medium to major automotive sheet metal
	Queendustria	Tel: +27 (0)45 858 8020	pressings, automotive body panels.
	Queenstown, 5320	Fax: +27 (0)45 858 8526	Exporter: Yes (indirectly)
	PO Box 2379	e-mail: spm@spmza.co.za	Export Enquiries: Derek Soden
	Komani, 5322		Employees: 280
			Quality Rating: ISO TS 16949
	Gate 5, GMSA	D.R. Soden, Managing Director	
	Kempston Road	Tel: +27 (0)41 451 0105	
	Port Elizabeth, 6001	Fax: +27 (0)41 451 0107	
		e-mail: spmpe@spmza.co.za	
D	**STEELBANK MERCHANTS (Pty) Ltd**		
	19-21 Trotter Road	Leon Freese, Managing Director	Steel stockists for the Automotive Industry. Steel
	Pinetown, 3600	Tel: +27 (0)31 701 4821	processing centre for slitting, blanking and cut-to-length
	PO Box 115	Fax: +27 (0)31 702 3988	of all types of flat steel products.
	Pinetown, 3610	e-mail: info@steelbank.co.za	Exporter: Yes
			Employees: 120
			Quality Rating: ISO 9001:2000/ ISO TS16949:2002
			ISO 14001:2004
SP	**SUPPLIER PARK DEVELOPMENT COMPANY (Pty) Ltd**		
	30 Helium Street, Rosslyn	Papi Mphahlele, Managing Director	The Automotive Supplier Park is located in Rosslyn,
	Private Bag X35	e-mail: pmphahlele@spdc.co.za	north of Pretoria, Gauteng's automotive hub, within
	Rosslyn, 0200	Evelyn Modise, Customer	close proximity to major OEMs e.g. BMW, Nissan, Fiat
		Relations Manager	and Ford. The ASP develops customised factories
		e-mail: emodise@spdc.co.za	and provides world class infrastructure, logistics and
		Tel: +27 (0)12 564 5140	related services to meet the specific requirements of
		Fax: +27 (0)12 564 5142	the automotive component industry.
		Website: www.supplierpark.co.za	Exporter: No
			Employees: 17
B	**SUPREME SPRING -** ***A Division of Metindustrial (Pty) Limited***		
	45 Johnson Road	André Becker, Managing Director	Suspension components, including coil springs,
	Pretoriusstad, Nigel,	Tel: +27 (0)11 739 9200	leaf springs, torsion bars, stabiliser bars.
	Gauteng	Fax: +27 (0)11 814 2909	Exporter: Yes
	PO Box 1529	e-mail: becker@supremespring.co.za	Export Enquiries: Mark Barley, Sales Director
	Nigel, 1490	e-mail: s-spring@supremespring.co.za	e-mail: barley@supremespring.co.za
			Employees: 550
			Quality Rating: TS 16949:2002/ISO 14001
B	**TAKATA PETRI (SOUTH AFRICA) (Pty) Ltd**		

	Charles Mathew Street	J. Nortje, Managing Director Sales &	Steering wheels, seat belts, airbags.
	Atlantis, Western Cape	Marketing	Exporter: Yes
	PO Box 1600	Tel: +27 (0)21 573 8224	Export Enquiries: J. Nortje
	Dassenberg, 7350	Fax: +27 (0)21 577 3386/1477	Employees: 523
		e-mail: jimmy.nortje@eu.takata.com	Quality Rating: VDA 6.1/QS 9000/TS 16949/ISO 14001
	TENNECO		
B	***Emission Control Division***		
	Cnr. Struanway &	Gary Keen, Plant Manager,	Catalytic converters, exhaust systems.
	Libertas Roads	Emission Control	Exporter: Yes
	Struandale,	e-mail: gary.keen@tenneco.com	Employees: 538
	Port Elizabeth, 6000	Colin Schroder, Business Development	Quality Rating: ISO 9002/VDA 6.3/TS 16949/
	PO Box 669	& Supply Chain Manager	ISO 14001/Ford Q1/GM PCPA
	Port Elizabeth, 6000	e-mail: colin.schroder@tenneco.com	
		Tel: +27 (0)41 401 5000	
		Fax: +27 (0)41 456 2788	
B	***Ride Control Division***		
	267-275 Grahamstown	Etienne Els, Plant Manager, Ride Control	Shock absorbers, struts.
	Road, Deal Party	e-mail: etienne.els@Tenneco.com	Exporter: Yes
	Port Elizabeth, 6001	Brian Pashley, OE Sales/	Employees: 385
	PO Box 9043	Marketing Director	Quality Rating: ISO 9001:2000/QS 9000:1998/
	Estadeal	e-mail: brian.pashley@tenneco.com	TS 16949/ISO 14001
	Port Elizabeth, 6012	Tel: +27 (0)41 401 7200	
		Fax: +27 (0)41 401 7380	
	Ride Control Aftermarket Division		
	Pellmeadow Office Park	Megan Naiker, Country Manager SA	See OE details above
	60 Civin Drive, Essexwold,	e-mail: megan.naiker@Tenneco.com	
	Bedfordview 2007	Philip Lutz, Product Manager	
	P O Box 16252	e-mail: philip.lutz@Tenneco.com	
	Doornfontein, 2028	Tel: +27 (0)11 5745600	
		Fax:+27 (0) 11 5745618	
B	**TIMKEN SOUTH AFRICA (Pty) Ltd**		
	Cnr. van Dyk &	Danie Coetser, Managing Director	Anti-friction roller bearings to OE and aftermarket.
	Edinburgh Roads	e-mail: danie.coetser@timken.com	Permatex range of adhesives, threadlockers,
	Benoni South	Tel: +27 (0)11 741 3800	silicones, hand cleaners and auto aftermarket
	1502	Fax: +27 (0)11 914 4018	products, grease, bearing pullers, induction heaters.
	Private Bag 3	Website: www.timken.com	Exporter: Yes
	Dunswart, 1508		Export Enquiries: Shamika Singh
			Employees: Approx. 250
			Quality Rating: ISO 9002:2000/AAR M1003
SP	**TRENSTAR SA (Pty) Ltd**		
	Central Park Unit 3	Wayne Gray,	Track and manage all returnable packaging, logistical
	13 Esdoring Street	Regional Business Development Manager	services and on-site management.
	Highveld Techno Park	e-mail: wayneg@trenstar.co.za	Exporter: Yes
	Centurion, 0046	Cell: 082 499 2632	Employees: 314
	Private Bag X17	Tel: +27 (0)12 676 3368	
	Highveld Park, 0169	Fax: +27 (0)12 676 3344	

D	**TRIDENT STEEL**		
	Marthunisen Road	Terry Robins, Director	Modern and comprehensive steel processing and
	Roodekop, Germiston	Tel: +27 (0)11 861 7136	steel service centres, speciality steels and tube
	PO Box 124054	Fax: +27 (0)11 865 2983	manufacturing.
	Alrode, 1451	e-mail: terry.robins@trident.co.za	Exporter: Yes
		Website: www.trident.co.za	Employees: 382
			Quality Rating: ISO TS 16949:2002/ISO 9001:2000
E	**TRIZ ENGINEERING SOLUTIONS**		
	13 Mispel Road	Appie Theron, General Manager	Automotive engineering, design and development.
	Bellville, Cape	Tel: +27 (0)21 957 5360	Component failure analysis and re-design
		Fax: +27 (0)21 957 5386	Exporter: Yes
		e-mail: atheron@t-e-s.co.za	Employees: 35 (24 automotive)
		Website: www.trizengineering.com	
B	**TRW OCCUPANT RESTRAINTS South Africa Inc.**		
	Cnr. Charel Uys & Neil	Stefan Schulze, General Manager	Motor vehicle safety belts, height adjusters, braking
	Hare Roads	e-mail: stefan.schulze@trw.com	components, airbags, steering wheels, injection
	Atlantis, 7349	Cell: +27 (0) 79 527 9257	moulded components.
	PO Box 1513	John McCormick, Financial Manager	Exporter: Yes
	Dassenberg, 7350	e-mail: john.mccormick@trw.com	Export Enquiries: Wayne McIntosh
		Tel: +27 (0)21 577 1420	Employees: 420
		Fax: +27 (0)21 577 1707	Quality Rating: VDA 6.3/ISO 14001/TS 16949/ Q1
B	**UNIVERSAL CLIPS cc**		
	6 Factory Street	Les Groves, Director	Manufacturers of hoseclamps, worm-drive
	Industria North	e-mail: les@uniclips.co.za	clamps, heavy duty bolted clamps, wire clamps,
	Johannesburg	Tel: +27 (0)11 477 1310	T bolt clamps, hub cup spring rings, metal clips
	PO Box 58124	Fax: +27 (0)11 477 7642	and pressings, non coil springs and wire products.
	Newville, 2114		Exporter: Yes
			Employees: 82
			Quality Rating: ISO/TS 16949:2002
SP	**UTi Automotive**		
	20 Loper Anenue	Jacques Whittle	UTi Services include air and ocean freight forwarding,
	Spartan	UTi Material Handling: Manager,	contract logistics, customer brokerage, distribution,
	Johannesburg	Client Development	inbound and outbound logistics, truck load brokerage
	PO Box 63	Tel: +27 (0)41 401 8800	and other supply chain management, optimisation
	The Reeds, 0016	Fax: +27 (0)41-456 4153	solutions and services including consulting and
		e-mail: jwhittle@za.go2uti.com	customised management services.
		Paul Marshall	Exporter: No
		UTi Material Handling: Managing Director	Employees: 4500
		Tel: +27 (0)12 673 2416	Quality Rating: ISO 9002/TS 16949
		Fax: +27 (0)12 673 2428	
		e-mail: pmarshall@za.go2uti.com	
		Wayne Furness	
		UTi Automotive: Managing Director	
		Tel: +27 (0)11 387 0900	
		Fax: +27 (0)11 974 8265	
		e-mail: wfurness@za.go2uti.com	
		Website: www.go2uti.com	
B	**VACUFORM 2000 (Pty) Ltd**		
	155 van Eden Crescent	A. Taylor, Director	Trim components, aerokits and related accessories,
	Rosslyn East, Pretoria	M Mokgatle, Director	reaction injection moulding (integral and semi-rigid),

	PO Box 911-312	J.Manyapye, Director	foam filled parts, spoilers, energy absorbing foam,
	Rosslyn, 0200	Tel: +27 (0)12 541 1575	PVC floor mats, LDV bin covers, vacuum-formed
		Fax: +27 (0)12 541 1574	mudguard liners, inner liners, car consoles, metal
		e-mail: info@vacuform.co.za	reinforced PU-parts, under covers, battery covers,
		Website: www.vacuform.co.za	grilles, wheel covers, laminated car interior parts,
			parcel shelves, shrouds, instrument panels, PE-foam
			moulded water shield door protectors. Blow moulded
			radiator overflow bottles, window washer bottles
			and airconditioning ducting.
			Exporter: Yes (Via OEM's)
			Employees: 60
			Quality Rating: TS 16949:2002/ISO 14000/Q1
B	**VENTURE South Africa - *Venture Otto South Africa (Pty) Ltd t/a***		
	Venture Global	Mark Walker, CEO	
	138 Frikkie de Beer Street	e-mail: m.walker@venture-sa.co.za	
	Glen Manor Office Park	Tel: +27 (0)12 365 8760	
	Pretoria	Fax: +27 (0)12 361 8364	
	Postnet Suite 380	Website: www.ventureglobal.biz	
	Private Bag X4		
	Menlo Park, 0102		
	Venture South Africa	Louw van Tonder	Exporter: Yes
	138 Frikkie de Beer Street	Business Development Director	Employees: 1450
	Glen Manor Office Park	Tel: +27 (0)12 365 8760	Quality Rating: ISO 14000/TS 16949/
	Pretoria	Fax: +27 (0)12 361 8364	VDA6.1/QS 9000
	Postnet Suite 380	Cell: +27 (0)83 678 8122	
	Private Bag X4	e-mail: l.vantonder@venture-sa.co.za	
	Menlo Park, 0102		
	Venture Durban	Louw van Tonder	Mould and paint interior and exterior plastic
	32 Prospecton Road	Business Development Director	automotive components e.g. bumpers, exterior trim
	Prospecton, 4113	Tel: +27 (0)12 365 8760	parts (mirrors, door protection strips, rocker panels,
	PO Box 26410	Fax: +27 (0)12 361 8364	grilles, wheel trims) and interior trim parts (instrument
	Isipingo Beach, 4115	Cell: +27 (0)83 678 8122	panels, door panels, consoles, pillar trims) as well as
		e-mail: l.vantonder@venture-sa.co.za	non automotive, assembly and JIT supply. Program
			management and tooling manufacture. Technical
			blow moulded, injection moulded and vacuum
			formed components, dunnage systems and pallets.
	Venture East London	Louw van Tonder	Mould and paint interior and exterior plastic automotive
	Robbie de Lange Road	Business Development Director	components e.g. bumpers, exterior trim parts (mirrors,
	Wilsonia, 5247	Tel: +27 (0)12 365 8760	door protection strips, rocker panels, grilles, wheel
	PO Box 12765	Fax: +27 (0)12 361 8364	trims) and interior trim parts (instrument panels, door
	Amalinda, 5252	Cell: +27 (0)83 678 8122	panels, consoles, pillar trims), assembly and JIT supply.
		e-mail: l.vantonder@venture-sa.co.za	Program management and tooling manufacture.
	Venture Rosslyn	Chris Foster, Sales Manager	Mould and paint interior and exterior plastic automotive
	88 Piet Rautenback Road	Tel: +27 (0)12 541 0015	components e.g. bumpers, exterior trim parts (mirrors,
	Rosslyn, Pretoria	Fax: +27 (0)12 541 0018	door protection strips, rocker panels, grilles, wheel
	PO Box 911-3213	Cell: +27 (0)83 678 8110	trims) and interior trim parts (instrument panels, door
	Rosslyn, 0200	e-mail: c.foster@venture-sa.co.za	panels, consoles, pillar trims), assembly and JIT supply.
		Website: www.ventureglobal.biz	Program management and tooling manufacture.
	Venture Uitenhage	Louw van Tonder	Mould and paint interior and exterior plastic automotive

	Brickfields Road	Business Development Director	components e.g. bumpers, exterior trim parts (mirrors,
	Alexander Park Industrial	Tel: +27 (0)12 365 8760	door protection strips, rocker panels, grilles, wheel
	Uitenhage, 6229	Fax: +27 (0)12 361 8364	trims) and interior trim parts (instrument panels, door
	PO Box 2291	Cell: +27 (0)83 678 8122	panels, consoles, pillar trims), assembly and JIT supply.
	North End, 6056	e-mail: l.vantonder@venture-sa.co.za	Program management and tooling manufacture.
B	**VENTURE DIVERSIFIED PLASTICS**		
	55 Jacaranda Street	Gerhard Botha	Technical blow moulded, injection moulded and vacuum
	Hennops Park	e-mail: g.botha@venture-sa.co.za	formed components, dunnage systems and pallets.
	Centurion, 0157	Tel: +27 (0)12 653 8282	Exporter: Yes
		Fax: +27 (0)12 653 6004	Employees: 200
		Cell: +27 (0)82 903 1825	
A	**VISTEON S.A. (Pty) Ltd**		
	29 Kohler Street	Andrew Dealtry, Managing Director	Visteon SA is the regional manufacturing and customer
	Perseverance	Tel: +27 (0)41 404 7601	support operation of Visteon Corporation, a global
	Port Elizabeth, 6001	e-mail: adealtry@visteon.com	Tier 1 supplier. Visteon Corporation offers full design/
	Post Net Suite 241	Brad Curtis, Account Manager	development/production capability in many product
	Private Bag X40106	e-mail: bcurtis8@visteon.com	areas within the range of interiors, climate control,
	Walmer	Tel: +27 (0)41 404 7602	powertrain and electronic systems. Many of these
	Port Elizabeth 6065	Fax: +27 (0)41 463 3300	products are utilised by regional OEMs, either imported
			directly or through Visteon SA. The plant in Port
			Elizabeth produces Engine Intake Systems and
			associated parts for both domestic and export programs.
			Exporter: Yes
			Employees: 58
			Quality Rating: ISO TS 16949/ISO 14001
			Ford Q1 Approved
BE	**WABCO AUTOMOTIVE South Africa**		
	10 Sunrock Close	Enoch Silcock, Acting General Manager	Air brake equipment including ABS, ASR and
	Sunnyrock Ext 2	Tel: +27 (0)11 450 2052	EBS systems. Design, test and certification of air
	Germiston, Johannesburg	Fax: +27 (0)11 450 3022	brake systems.
	PO Box 4590	e-mail: wabcosa@sturrocksa.co.za	Exporter: Yes (Sub-Saharan Africa)
	Edenvale, 1610		Export Enquiries: Enoch Silcock
			Employees: 47
			Quality Rating: ISO 9000/VDA 6
B	**WALRO FLEX *(BGG Cable Manufacturers SA (Pty) Ltd t/a)***		
	61, 7th Avenue	Deon Mattheus, Acting Managing Director	Manufacturers of automotive cable, battery
	Alberton North	Tel: +27 (0)11 907 1563	cable and highly flexible copper conductors (pigtail).
	PO Box 1062	Fax: +27 (0)11 907 7903	Exporter: Indirect
	Alberton, 1450	e-mail: deonm@walroflex.com	Employees: 116
		Website: www.walroflex.com	Quality Rating: ISO TS 16949:2002
C	**WHEELCRAFT (Pty) Ltd (WAW)**		
	Stand 206, 8th Street	André van Niekerk, Managing Director	Manufacturing of light alloy wheels.
	Babelegi, North West	Tel: +27 (0)12 719 8083	Exporter: Yes
	PO Box 1009	Fax: +27 (0)12 719 6428	Employees: 65
	Derdepoort Park, 0035	e-mail: andre@waw.co.za	Quality Rating: ISO 9001
		Website: www.waw.co.za	
B	**ZEALOUS AUTOMOTIVE (Pty) Ltd**		
	28 Bell Street, New Era	Steven Reid, Managing Director	High pressure die casting, aluminium and zinc
	Springs	e-mail: sreid@zealous.co.za	machining/finishing. Supply full range of services

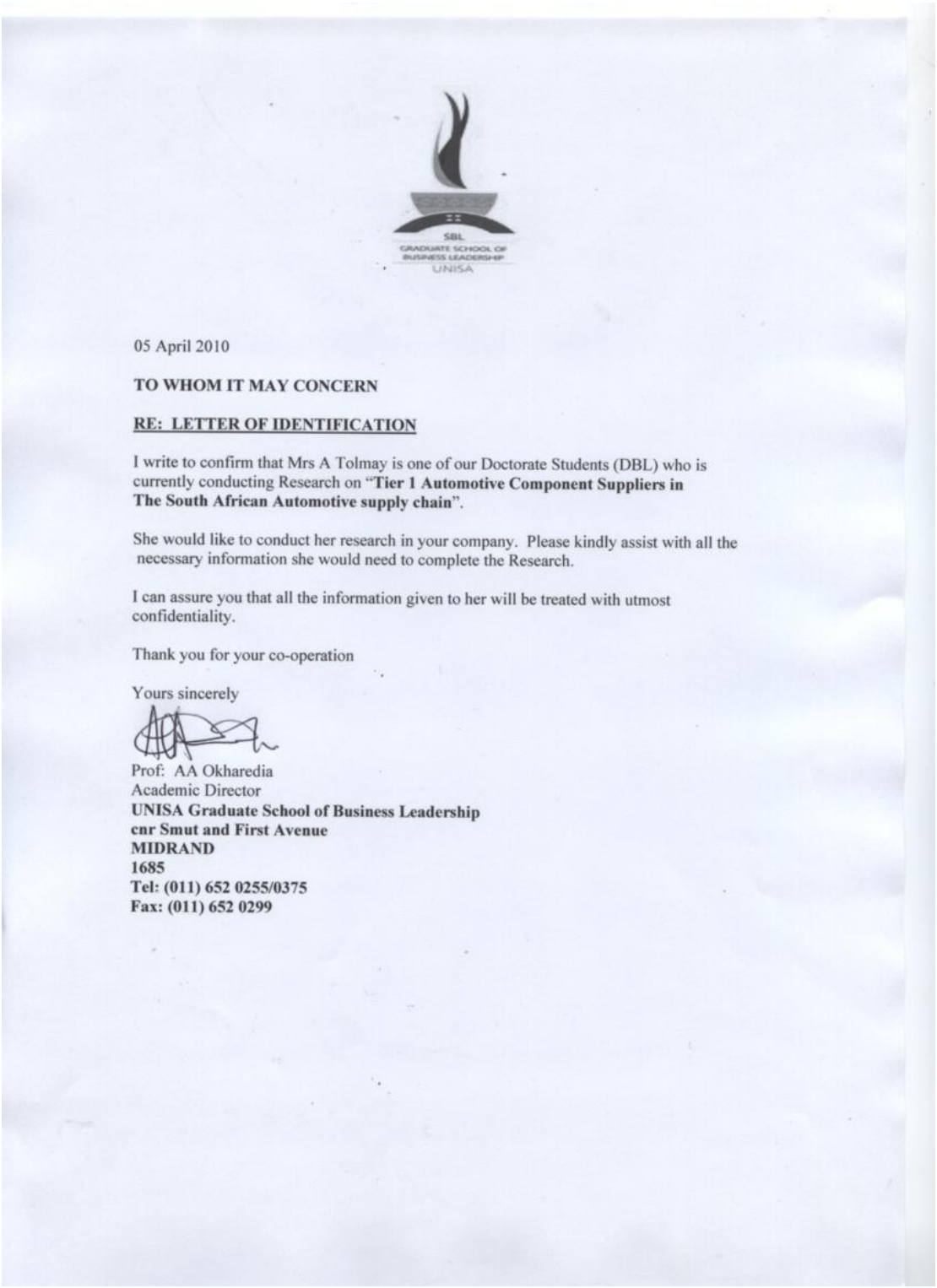
	PO Box 357	Graham Hardisty, Commercial Director	including design, production of tooling, casting
	Springs, 1560	e-mail: grahamh@zealous.co.za	and machining for the automotive industry.
		Tel: +27 (0)11 813 1130	Exporter: Yes
		Fax: +27 (0)11 817 1564	Export Enquiries: Steven Reid
			Employees: 214
			Quality Rating: TS 16949/ISO 9002
B	**ZF LEMFÖRDER SA (Pty) Ltd**		
	120 Doreen Avenue	Ben Roos, Managing Director	Assembly of complete axles and front struts.
	Rosslyn, Gauteng	Tel: +27 (0)12 521 7500	Employees: 141
	PO Box 59832	Fax: +27 (0)12 541 1886	Quality Rating: ISO TS 16949:200/ISO 14001
	Karenpark, 0118	e-mail: ben.roos@zf.com	VDA 6.3

ANNEXURE G – LEGEND

Symbol	Description
A	Manufacturers and suppliers of OE components to vehicle assembly plants only
B	Manufacturers and suppliers of OE as well as P & A and aftermarket/replacement components
C	Manufacturers of accessories and replacement parts
D	Manufacturers of allied products supplied to vehicle assembly plants and other sectors of industry e.g. steel, paint, glass, abrasives, fasteners, upholstery, tooling, pallets, packaging, identification/marking
E	Suppliers of related/support products to the motor industry
SP	Service Providers

)

ANNEXURE H - LETTER FROM UNIVERSITY



SBL
GRADUATE SCHOOL OF BUSINESS LEADERSHIP
UNISA

05 April 2010

TO WHOM IT MAY CONCERN

RE: LETTER OF IDENTIFICATION

I write to confirm that Mrs A Tolmay is one of our Doctorate Students (DBL) who is currently conducting Research on "**Tier 1 Automotive Component Suppliers in The South African Automotive supply chain**".

She would like to conduct her research in your company. Please kindly assist with all the necessary information she would need to complete the Research.

I can assure you that all the information given to her will be treated with utmost confidentiality.

Thank you for your co-operation

Yours sincerely

Prof: AA Okharedia
Academic Director
UNISA Graduate School of Business Leadership
cnr Smut and First Avenue
MIDRAND
1685
Tel: (011) 652 0255/0375
Fax: (011) 652 0299

ANNEXURE I – EFA VALUE CONTRUCTS

Developing a Relationship Value Model (RVM) for the South African B2B **Automotive Supply Chain**

1. Exploratory Factor Analysis

In pursuit of parsimony, patterns of correlations among the questions used to measure the extent to which respondents agree with statements made regarding various aspects of the service delivery that they get from their most reliable supplier (Supplier A), were examined by subjecting the set of items to Principle Axis Factoring (PAF) using SPSS18.0.

The research variables of interest included 18 items representing aspects relevant to service delivery. Prior to performing PAF the suitability of the data for factor analysis was assessed. The relationships among the eighteen variables that were measured on a 7-point Likert-type scale to rate the extent to which they agree with statements regarding service delivery from Supplier A, was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure that there are no violations of the assumptions of normality, linearity and homoscedasticy. Inspection of the correlation matrix (Table 1.1) revealed the presence of many coefficients of 0.3 and above. Additionally, the Kaiser-Meyer-Olkin value was 0.898, exceeding the recommended minimum value of 0.6 (Kaiser, 1970, 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, $p<.001$, supporting the factorability of the correlation matrix.

Two of the items namely *SS_xxvii Supplier A provides good service support in general* and *SS_xxiv Supplier A performs well when providing us with information*, were excluded in the final analysis since they cross-loaded significantly (loading more than 0.5[1]) on more than one factor.

Table 1.3 shows that PAF revealed the presence of three components with eigenvalues exceeding 1, cumulatively explaining 60.05% of the variance in the data. This three factor solution did not result in a simple structure (Thurstone, 1947) after rotation. Inspection of the scree plot (Figure 1.1) revealed an inflection point at the fifth component. Using Cattell's (1966) scree test and since the eigenvalue of the fourth factor is close to 1, it was

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[1]Factor loadings of 0.51 and larger were considered significant and used for interpretation of structure since *N=112* (Hair, Black, Anderson and Tatham, 2006, p128).

decided to retain 4 components for further investigation. These 4 factors cumulatively explains 71.90% of the variance in the data and a simple structure was obtained.

To aid in the interpretation and scientific utility of these four components, Varimax rotation[2] was performed. The rotated solution revealed the presence of a simple structure (Thurstone, 1947), with each of the four components showing a number of strong loadings (Table 1.4).

The subscales for the four extracted factors were obtained by calculating the mean of the items loading on each of the subscales or factors. This resulted in four factors being calculated and named 1) Product and Service Support, 2) Relationship Quality 3) Product Development Support and 4) Improving Speed of Business, with each factor demonstrating acceptable internal consistency as illustrated by the Cronbach's alpha coefficients[3] and the corresponding means and standard deviations listed in Table 1.5. Table 1.3 shows that the first four factors cumulatively account for at least 78 % of the variation in the factor space, before rotation. After rotation, almost 72% of the variance is explained by the rotated factor solution.

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[2] Orthogonal rotation was chosen since the analytical procedures for these procedures are better developed than those of Oblique rotation. Varimax specifically was chosen since it results in a clearer separation of factors (Hair et al., 2006, p126).

[3]"The generally agreed upon lower limit for Crohnbach's Alpha is 0.70, although it may decrease to 0.60 in exploratory research" (Hair et al., 2006, p137).

Table 1.1: Pearson Correlation Coefficients between the 18 measures of the service delivery aspects with respect to Supplier A (*N*=112, Listwise)

	DP_i	DP_xx	DP_xxv	PQ_v	PQ_xix	PQ_xxiii	TM_xi	TM_xiii	TM_xiv	SS_xvii	SS_xxiv	SS_xxvii	KH_viii	KH_ix	KH_xv	PI_x	PI_vi	PI_xxii
DP_i Supplier A has the ability to meet delivery dates.	1																	
DP_xx Supplier A makes minimal delivery errors (late, wrong address, wrong products).	**.630****	1																
DP_xxv Supplier A provides acceptable delivery accuracy (no missing or wrong parts).	**.669****	**.813****	1															
PQ_v Supplier A has minimal product rejects (faulty).	**.510****	**.507****	**.616****	1														
PQ_xix Supplier A has the ability to secure product quality consistency.	**.633****	**.671****	**.697****	**.716****	1													
PQ_xxiii Supplier A offers product reliability.	**.628****	**.665****	**.664****	**.676****	**.776****	1												
TM_xi Supplier A has the ability to help us speed up product development.	**.494****	**.425****	**.462****	**.533****	**.454****	**.419****	1											
TM_xiii Supplier A has the ability to help us to improve the cycle time of all activities in the manufacturing process.	**.303****	**.421****	**.449****	**.471****	**.462****	**.519****	**.497****	1										

TM_xiv Supplier A has the ability to improve our time-to-market.	.299**	**.415****	**.346****	**.334****	**.335****	**.464****	**.468****	**.672****	1									
SS_xvii Supplier A has the ability to provide us with appropriate information.	**.487****	**.515****	**.432****	**.484****	**.523****	**.587****	**.582****	**.416****	**.424****	1								
SS_xxiv Supplier A performs well when providing us with information.	**.560****	**.570****	**.567****	**.550****	**.666****	**.706****	**.505****	**.410****	**.429****	**.660****	1							
SS_xxvii Supplier A provides good service support in general.	**.705****	**.690****	**.677****	**.595****	**.678****	**.706****	**.481****	**.474****	**.466****	**.676****	**.720****	1						
KH_viii Supplier A has the ability to assist with new product development.	**.339****	**.335****	**.399****	**.568****	**.418****	**.333****	**.767****	**.420****	**.324****	**.479****	**.428****	**.393****	1					
KH_ix Supplier A has the ability to drive innovation in products.	**.429****	**.544****	**.507****	**.561****	**.598****	**.484****	**.701****	**.616****	**.435****	**.546****	**.541****	**.516****	**.696****	1				
KH_xv Supplier A has the ability to provide general know-how.	**.438****	**.493****	**.507****	**.540****	**.560****	**.563****	**.599****	**.576****	**.618****	**.751****	**.577****	**.634****	**.474****	**.518****	1			
PI_x Supplier A has the ability to give us a feeling of being treated as an important client.	**.521****	**.476****	**.494****	**.400****	**.493****	**.509****	**.572****	**.366****	**.428****	**.689****	**.627****	**.649****	**.446****	**.514****	**.662****	1		
PI_vi Supplier A has the ability to address problems.	**.606****	**.660****	**.592****	**.624****	**.681****	**.678****	**.565****	**.479****	**.446****	**.638****	**.685****	**.662****	**.513****	**.624****	**.623****	**.601****	1	
PI_xxii Supplier A offers good working relationships.	**.519****	**.612****	**.536****	**.468****	**.555****	**.637****	**.513****	**.457****	**.438****	**.768****	**.734****	**.797****	**.447****	**.547****	**.640****	**.756****	**.597****	1

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

Table 1.2: Communalities of the retained 16 items (Principle Axis Factoring)

	Initial	Extraction
DP_i Supplier A has the ability to meet delivery dates.	.601	.577
DP_xx Supplier A makes minimal delivery errors (late, wrong address, wrong products).	.786	.691
DP_xxv Supplier A provides acceptable delivery accuracy (no missing or wrong parts).	.785	.723
PQ_v Supplier A has minimal product rejects (faulty).	.671	.620
PQ_xix Supplier A has the ability to secure product quality consistency.	.758	.759
PQ_xxiii Supplier A offers product reliability.	.771	.762
TM_xi Supplier A has the ability to help us speed up product development.	.756	.770
TM_xiii Supplier A has the ability to help us to improve the cycle time of all activities in the manufacturing process.	.640	.761
TM_xiv Supplier A has the ability to improve our time-to-market.	.611	.660
SS_xvii Supplier A has the ability to provide us with appropriate information.	.766	.767
KH_viii Supplier A has the ability to assist with new product development.	.703	.857
KH_ix Supplier A has the ability to drive innovation in products.	.723	.684
KH_xv Supplier A has the ability to provide general know-how.	.759	.724
PI_x Supplier A has the ability to give us a feeling of being treated as an important client.	.719	.733
PI_vi Supplier A has the ability to address problems.	.691	.674
PI_xxii Supplier A offers good working relationships.	.760	.743

Extraction Method: Principal Axis Factoring.

Table 1.3: Total Variance Explained by Exploratory Factor Analysis

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.115	56.969	56.969	4.290	26.815	26.815
2	1.393	8.709	65.679	2.863	17.895	44.710
3	1.076	6.727	72.406	2.455	15.341	60.051
4	.990	6.188	78.594	1.896	11.847	71.898
5	.616	3.852	82.446			
6	.488	3.051	85.497			
7	.387	2.421	87.918			
8	.368	2.303	90.221			
9	.302	1.888	92.109			
10	.295	1.844	93.953			
11	.235	1.468	95.421			
12	.197	1.232	96.653			
13	.177	1.106	97.759			
14	.146	.915	98.674			
15	.112	.701	99.374			
16	.100	.626	100.000			

Extraction Method: Principal Axis Factoring.

Table 1.4: Rotated Factor Matrix: Principal Axis Factoring with Varimax rotation (Kaiser Normalization)

	Factor			
	1	2	3	4
PQ_xix Supplier A has the ability to secure product quality consistency.	**.780**			
DP_xxv Supplier A provides acceptable delivery accuracy (no missing or wrong parts).	**.780**			
PQ_xxiii Supplier A offers product reliability.	**.753**			
DP_xx Supplier A makes minimal delivery errors (late, wrong address, wrong products).	**.737**			
DP_i Supplier A has the ability to meet delivery dates.	**.654**			
PQ_v Supplier A has minimal product rejects (faulty).	**.607**			
PI_vi Supplier A has the ability to address problems.	**.590**			
SS_xvii Supplier A has the ability to provide us with appropriate information.		**.745**		
PI_x Supplier A has the ability to give us a feeling of being treated as an important client.		**.740**		
PI_xxii Supplier A offers good working relationships.		**.703**		
KH_xv Supplier A has the ability to provide general know-how.		**.588**		
KH_viii Supplier A has the ability to assist with new product development.			**.871**	
TM_xi Supplier A has the ability to help us speed up product development.			**.715**	
KH_ix Supplier A has the ability to drive innovation in products.			**.606**	
TM_xiii Supplier A has the ability to help us to improve the cycle time of all activities in the manufacturing process.				**.758**
TM_xiv Supplier A has the ability to improve our time-to-market.				**.722**
Cumulative percentage variance explained	**26.82**	**44.71**	**60.05**	**71.90**

Table 1.5: Reliability statistics for the four extracted factors

Subscale	Description	N of Items	Cronbach's Alpha	Mean	Std Dev
F1	Product and Service Support	7	0.930	40.65	6.223
F2	Relationship Quality	4	0.904	22.78	3.888
F3	Product Development Support	3	0.888	15.87	3.839
F4	Improving Speed of Business	2	0.803	10.05	2.525
Overall	All dimensions	16	0.945	89.32	14.211

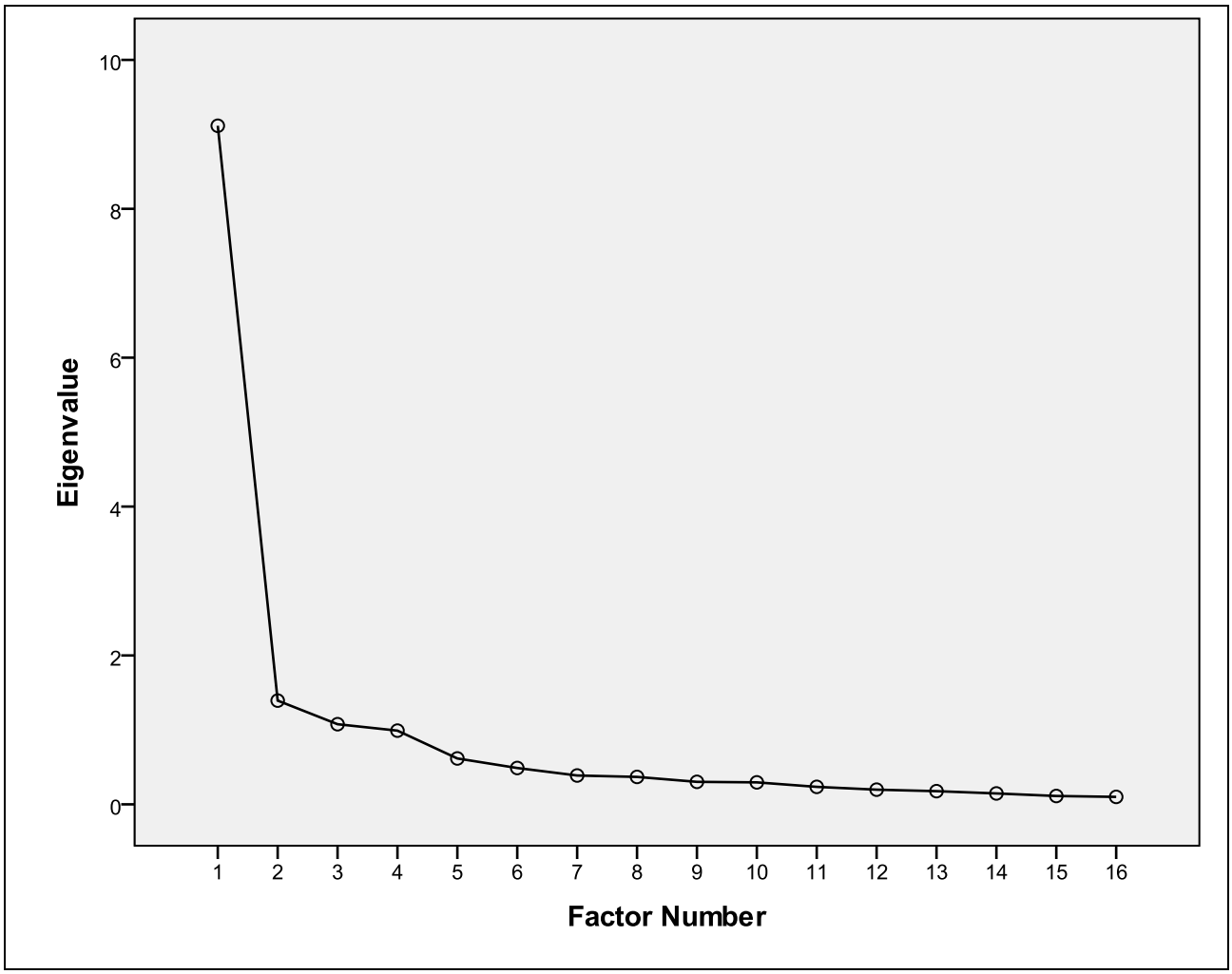

Figure 1.1: Scree Plot

Table 1.6 reflects the descriptive statistics for the four calculated factors representing the extent, on average, to which the respondents feel Supplier A performs regarding different aspects of service delivery that were identified as a result of Exploratory Factor Analysis.

Table 1.6: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std Deviation
Product and Service Support	119	1.00	7.00	5.75	.988
Relationship Quality	114	1.00	7.00	5.70	.968
Product Development Support	112	2.00	7.00	5.29	1.269
Improving Speed of Business	113	1.00	7.00	5.04	1.270
Valid N (listwise)	112				

Table 1.7: Correlations among the four extracted factors (*N*=112 Listwise)

		Product and Service Support	Relationship Quality	Product Development Support	Improving Speed of Business
Product and Service Support	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	119			
Relationship Quality	Pearson Correlation	.710**	1		
	Sig. (2-tailed)	.000			
	N	114	114		
Product Development Support	Pearson Correlation	.629**	.649**	1	
	Sig. (2-tailed)	.000	.000		
	N	112	112	112	
Improving Speed of Business	Pearson Correlation	.537**	.580**	.557**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	113	113	112	113

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

References

Bartlett, M.S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society*, 16 (Series B), 296 – 298.

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ANNEXURE J – EFA TRUST, COMMITMENT AND RELATIONSHIP VALUE

Developing a Relationship Value Model (RVM) for the South African B2B Automotive Supply Chain

Exploratory Factor Analysis (RV, Trust and Commitment)

In pursuit of parsimony, patterns of correlations among the questions used to measure the extent to which respondents agree with statements made regarding various aspects of the relationship value, trust and commitment that they experience with respect to their most reliable supplier (Supplier A), were examined by subjecting the set of items to Principle Axis Factoring (PAF) using SPSS18.0.

The research variables of interest included 9 items representing aspects relevant to relationship value, trust and commitment. Prior to performing PAF the suitability of the data for factor analysis was assessed. The relationships among the nine variables that were measured on a 7-point Likert-type scale to rate the extent to which they agree with statements regarding relationship value, trust and commitment with respect to Supplier A, was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure that there are no violations of the assumptions of normality, linearity and homoscedasticy. Inspection of the correlation matrix (Table 1.1) revealed the presence of many coefficients of 0.3 and above. Additionally, the Kaiser-Meyer-Olkin value was 0.906, exceeding the recommended minimum value of 0.6 (Kaiser, 1970, 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, p<.001, supporting the factorability of the correlation matrix.

Table 1.3 shows that PAF revealed the presence of one component with eigenvalue exceeding 1, explaining 37.31% of the variance in the data. Inspection of the scree plot (Figure 1.1) revealed a slight inflection point at the third component. Using Cattell's (1966) scree test and since the eigenvalue of the second factor is reasonably close to 1, it was decided to retain 2 components for further investigation. These 2 factors cumulatively explains 67.28% of the variance in the data (Table 1.3). To aid in the interpretation and scientific utility of these two components, Varimax rotation[4] was performed. The rotated

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[4] Orthogonal rotation was chosen since the analytical procedures for these procedures are better developed than those of Oblique rotation. Varimax specifically was chosen since it results in a clearer separation of factors (Hair et al., 2006, p126).

solution revealed the presence of a simple structure (Thurstone, 1947) with all items loading significantly (loading more than 0.5[5]) on one of the two factors (Table 1.4).

The subscales for the two extracted factors were obtained by calculating the mean of the items loading on each of the subscales or factors. This resulted in two factors being calculated and named 1) Relationship Value and 2) Relationship Commitment, with each factor demonstrating acceptable internal consistency as illustrated by the Cronbach's alpha coefficients[6] and the corresponding means and standard deviations listed in Table 1.5.

[5]Factor loadings of 0.51 and larger were considered significant and used for interpretation of structure since *N=112* (Hair, Black, Anderson and Tatham, 2006, p128).

[6]"The generally agreed upon lower limit for Crohnbach's Alpha is 0.70, although it may decrease to 0.60 in exploratory research" (Hair et al., 2006, p137).

Table 1.1: Pearson Correlation Coefficients among the 9 measures of the relationship value, trust and commitment aspects with respect to Supplier A (*N*=112, Listwise)

	RV_iv	RV_xxvi	RV_ixxx	TR_ii	TR_vii	TR_xii	CM_xvi	CM_xviii	CM_xxi
RV_iv Our organisation gains value from the relationship with Supplier A.	1	.625**	.612**	.638**	.503**	.547**	.526**	.384**	.588**
RV_xxvi When comparing all costs and benefits involved in our relationship with Supplier A, my firm feels that Supplier A creates value for us.	.625**	1	.565**	.554**	.641**	.674**	.532**	.347**	.653**
RV_ixxx The relationship my firm has with supplier A is valuable to us.	.612**	.565**	1	.594**	.632**	.654**	.680**	.618**	.693**
TR_ii In our relationship, my firm feels that Supplier A can be counted on to do what is right.	.638**	.554**	.594**	1	.765**	.758**	.588**	.445**	.577**
TR_vii In our relationship with Supplier A, our firm feels that Supplier A can be trusted.	.503**	.641**	.632**	.765**	1	.838**	.640**	.461**	.641**
TR_xii In our relationship, Supplier A demonstrates a high level of integrity.	.547**	.674**	.654**	.758**	.838**	1	.678**	.484**	.636**
CM_xvi The relationship that my firm has with Supplier A is something we are very committed to.	.526**	.532**	.680**	.588**	.640**	.678**	1	.615**	.719**
CM_xviii The relationship that my firm has with Supplier A is something my firm intends to maintain indefinitely.	.384**	.347**	.618**	.445**	.461**	.484**	.615**	1	.621**
CM_xxi The relationship that my firm has with Supplier A deserves our firm's maximum effort to maintain it.	.588**	.653**	.693**	.577**	.641**	.636**	.719**	.621**	1

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

Table 1.2: Communalities of the 9 items (Principle Axis Factoring)

	Initial	Extraction
RV_iv Our organisation gains value from the relationship with Supplier A.	.558	.479
RV_xxvi When comparing all costs and benefits involved in our relationship with Supplier A, my firm feels that Supplier A creates value for us.	.623	.572
RV_ixxx The relationship my firm has with supplier A is valuable to us.	.654	.712
TR_ii In our relationship, my firm feels that Supplier A can be counted on to do what is right.	.681	.689
TR_vii In our relationship with Supplier A, our firm feels that Supplier A can be trusted.	.763	.784
TR_xii In our relationship, Supplier A demonstrates a high level of integrity.	.780	.824
CM_xvi The relationship that my firm has with Supplier A is something we are very committed to.	.643	.689
CM_xviii The relationship that my firm has with Supplier A is something my firm intends to maintain indefinitely.	.504	.568
CM_xxi The relationship that my firm has with Supplier A deserves our firm's maximum effort to maintain it.	.694	.738

Extraction Method: Principal Axis Factoring.

Table 1.3: Total Variance Explained by Exploratory Factor Analysis

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.870	65.226	65.226	3.358	37.312	37.312
2	.842	9.359	74.585	2.697	29.967	67.279
3	.622	6.907	81.492			
4	.458	5.085	86.577			
5	.332	3.688	90.265			
6	.299	3.325	93.590			
7	.248	2.752	96.343			
8	.180	1.995	98.338			
9	.150	1.662	100.000			

Extraction Method: Principal Axis Factoring.

Table 1.4: Rotated Factor Matrix: Principal Axis Factoring with Varimax rotation (Kaiser Normalization)

	Factor	
	1	2
TR_xii In our relationship, Supplier A demonstrates a high level of integrity.	**.822**	
TR_vii In our relationship with Supplier A, our firm feels that Supplier A can be trusted.	**.809**	
TR_ii In our relationship, my firm feels that Supplier A can be counted on to do what is right.	**.753**	
RV_xxvi When comparing all costs and benefits involved in our relationship with Supplier A, my firm feels that Supplier A creates value for us.	**.658**	
RV_iv Our organisation gains value from the relationship with Supplier A.	**.541**	
CM_xviii The relationship that my firm has with Supplier A is something my firm intends to maintain indefinitely.		**.718**
CM_xxi The relationship that my firm has with Supplier A deserves our firm's maximum effort to maintain it.		**.712**
RV_ixxx The relationship my firm has with supplier A is valuable to us.		**.695**
CM_xvi The relationship that my firm has with Supplier A is something we are very committed to.		**.684**
Cumulative percentage variance explained	**37.31**	**67.28**

Table 1.5: Reliability statistics for the four extracted factors

Subscale	Description	N of Items	Cronbach's Alpha	Mean	Std Dev
F1	Relationship Value	5	0.903	28.90	4.371
F2	Relationship Commitment	4	0.865	22.96	3.680
Overall	All dimensions	9	0.926	51.87	7.562

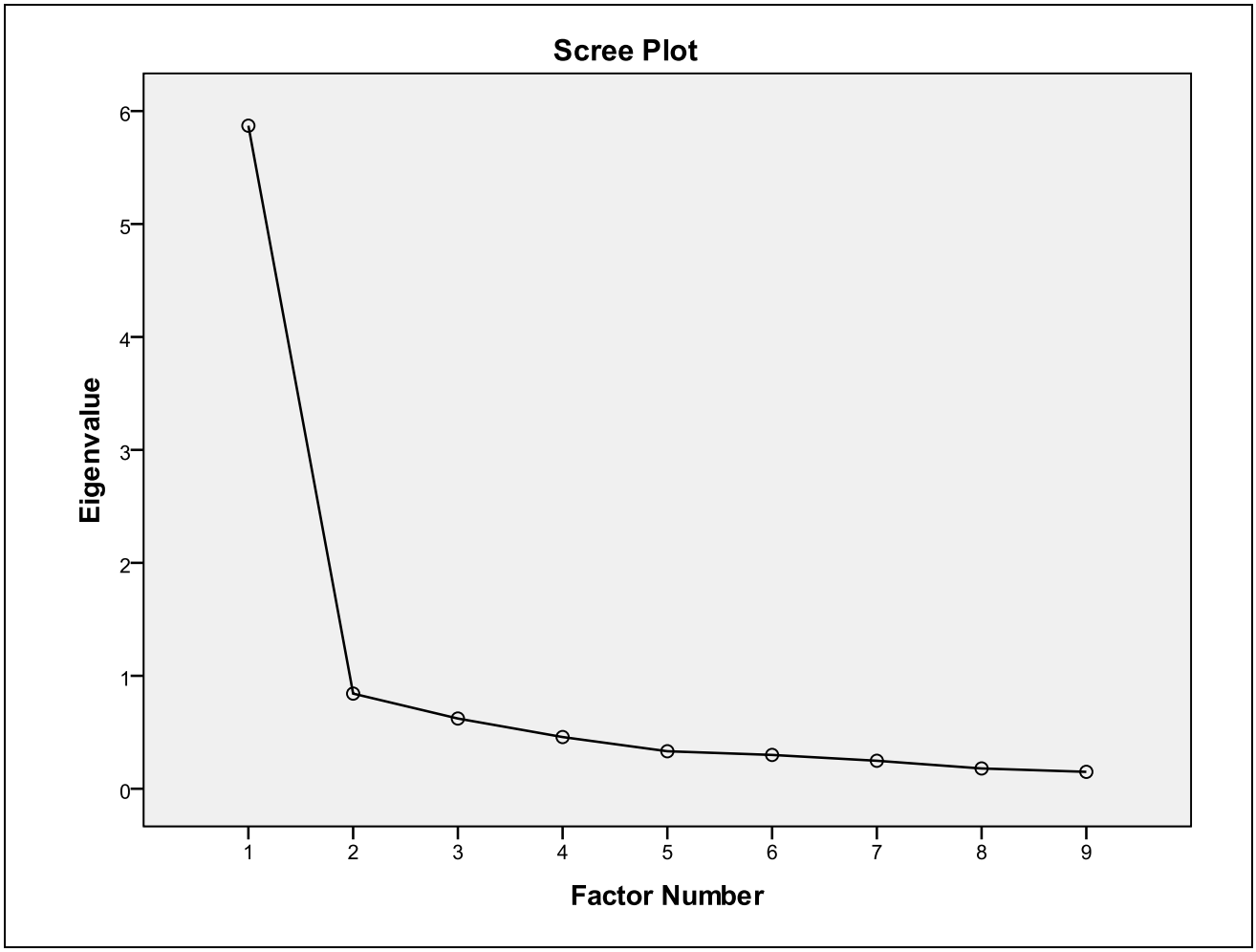

Figure 1.1: Scree Plot

Table 1.6 reflects the descriptive statistics for the two calculated factors, which represent the extent, on average, to which the respondents value and are committed to their relationship with Supplier A, that were identified as a result of Exploratory Factor Analysis.

Table 1.6: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std Deviation
Relationship Value	118	1.00	7.00	5.714	1.008
Relationship Commitment	114	3.00	7.00	5.723	0.930
Valid N (listwise)	114				

Table 1.7: Correlations among all the extracted factors and the Pricing and Retention items(*N*=111 Listwise)

		Reliability of Supplier A	Supplier A as respectful resource	Supplier A - product development support	Supplier A - Improve time-to-market	Relationship Value Component	Relationship Commitment Component	PR_xxviii Supplier A provides us with acceptable component pricing.	RT_iii My firm expects to expand the business they currently do with Supplier A.
Reliability of Supplier A	Pearson Correlation	1							
	Sig. (2-tailed)								
	N	119							
Supplier A as respectful resource	Pearson Correlation	.710**	1						
	Sig. (2-tailed)	.000							
	N	114	114						
Supplier A - product development support	Pearson Correlation	.629**	.649**	1					
	Sig. (2-tailed)	.000	.000						
	N	112	112	112					
Supplier A - Improve time-to-market	Pearson Correlation	.537**	.580**	.557**	1				
	Sig. (2-tailed)	.000	.000	.000					
	N	113	113	112	113				
Relationship Value	Pearson Correlation	.816**	.837**	.612**	.583**	1			
	Sig. (2-tailed)	.000	.000	.000	.000				
	N	118	114	112	113	118			

Relationship Commitment	Pearson Correlation	.672**	.646**	.579**	.461**	.738**	1		
	Sig. (2-tailed)	.000	.000	.000	.000	.000			
	N	114	114	112	113	114	114		
PR_xxviii Supplier A provides us with acceptable component pricing.	Pearson Correlation	.314**	.468**	.408**	.358**	.460**	.527**	1	
	Sig. (2-tailed)	.001	.000	.000	.000	.000	.000		
	N	113	113	112	113	113	113	113	
RT_iii My firm expects to expand the business they currently do with Supplier A.	Pearson Correlation	.598**	.494**	.541**	.392**	.603**	.587**	.203*	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.032	
	N	113	111	111	111	113	111	111	113

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

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

References

Bartlett, M.S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society*, 16 (Series B), 296 – 298.

Catell, R.B. (1966). The scree test for number of factors. *Multivariate Behavioral Research*, 1, 245 – 276.

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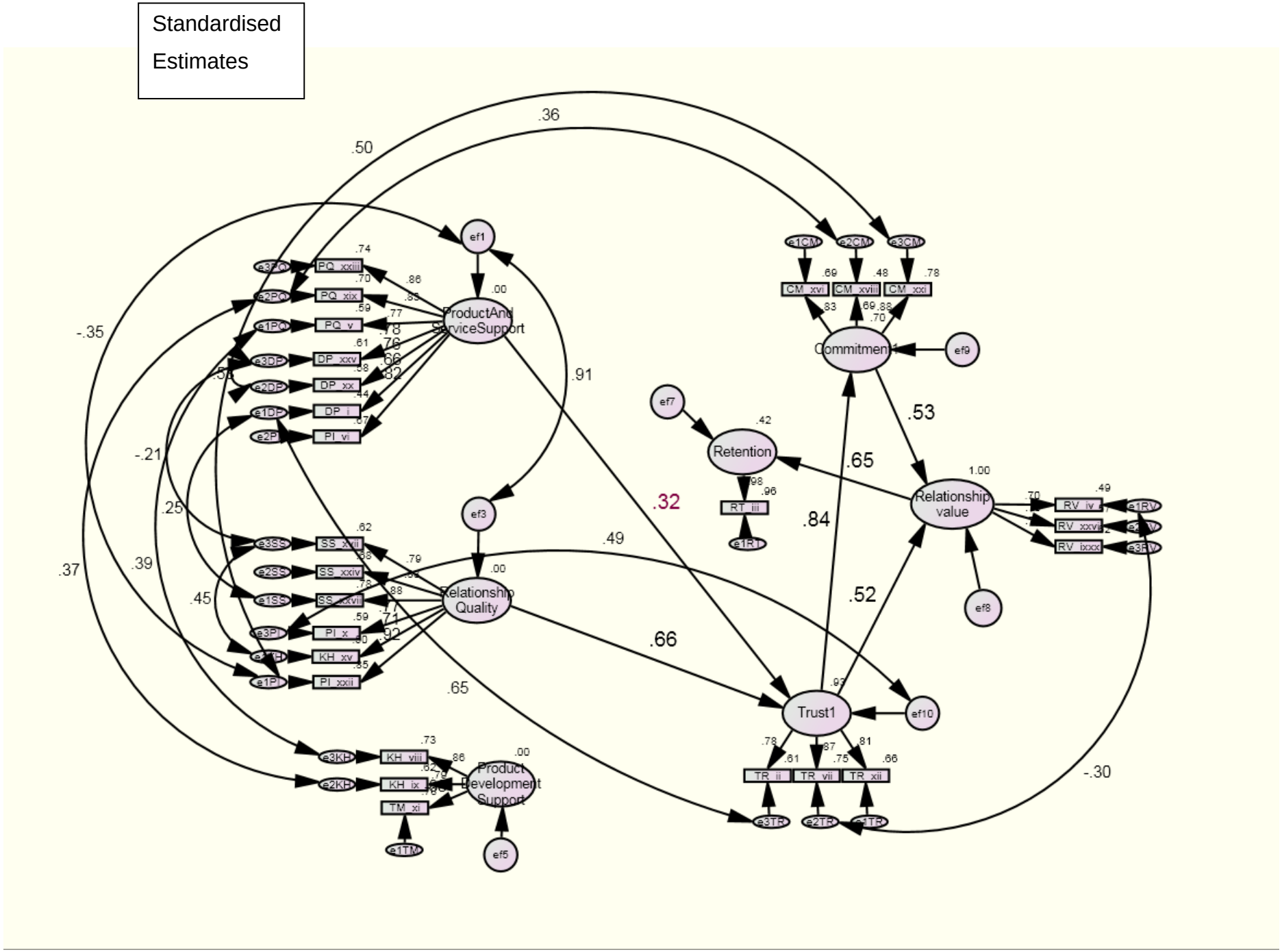
ANNEXURE K – SEM OUTPUT (FINAL MODEL)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Estimates
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.25
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PI_vi
SS_xxii
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SS_xxvii
PI_x
KH_xv
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KH_viii
KH_ix
TM_xi
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CM_xvii
CM_xxi
RT_iii
RV_iv
RV_xxvii
RV_ixxx
TR_ii
TR_vii
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e3KH
e1TM
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e3CM
e1RT
e1RV
e2RV
e3RV
e1TR
e2TR
e3TR

Analysis Summary

Date and Time

Date: 15 April 2011

Time: 11:59:16 AM

Title

b04 sem model nog eenvoudiger: 15 April 2011 11:59 AM

Groups

Group number 1 (Group number 1)

Notes for Group (Group number 1)

The model is recursive.

Sample size = 119

Variable Summary (Group number 1)

Your model contains the following variables (Group number 1)

Observed, endogenous variables

DP_i

DP_xx

DP_xxv

PQ_v

PQ_xix

PQ_xxiii

TM_xi

SS_xxvii

SS_xxiv

SS_xvii

KH_xv

KH_ix

KH_viii

PI_xxii

PI_vi

PI_x

TR_xii

TR_vii
TR_ii
CM_xvi
CM_xviii
CM_xxi
RV_iv
RV_xxvi
RV_ixxx
RT_iii
Unobserved, endogenous variables
ProductAnd_ServiceSupport
Relationship_Quality
Product_Development_Support
Trust1
Commitment1
Relationship_value
Retention
Unobserved, exogenous variables
e1DP
e2DP
e3DP
e1PQ
e2PQ
e3PQ
e1TM
e1SS
e2SS
e3SS
e1KH
e2KH
e3KH
e1PI
e2PI
e3PI
e1TR

e2TR
e3TR
e1CM
e2CM
e3CM
e1RV
e2RV
e3RV
e1RT
ef1
ef3
ef5
ef7
ef8
ef9
ef10

Variable counts (Group number 1)

Number of variables in your model:	66
Number of observed variables:	26
Number of unobserved variables:	40
Number of exogenous variables:	33
Number of endogenous variables:	33

Parameter summary (Group number 1)

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	38	0	5	0	0	43
Labeled	0	0	0	0	0	0
Unlabeled	27	13	28	0	26	94
Total	65	13	33	0	26	137

Models

Default model (Default model)

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	377
Number of distinct parameters to be estimated:	94
Degrees of freedom (377 - 94):	283

Result (Default model)

Minimum was achieved

Chi-square = 556.189

Degrees of freedom = 283

Probability level = .000

Group number 1 (Group number 1 - Default model)

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Trust1	<---	ProductAnd_ServiceSupport	.364	.118	3.091	.002	
Trust1	<---	Relationship_Quality	.687	.113	6.078	***	
Commitment1	<---	Trust1	.765	.086	8.857	***	
Relationship_value	<---	Commitment1	.468	.109	4.290	***	
Relationship_value	<---	Trust1	.419	.099	4.241	***	
Retention	<---	Relationship_value	.270	.045	5.988	***	
PQ_v	<---	ProductAnd_ServiceSupport	1.000				
PQ_xix	<---	ProductAnd_ServiceSupport	1.134	.106	10.664	***	
PQ_xxiii	<---	ProductAnd_ServiceSupport	.964	.091	10.534	***	

			Estimate	S.E.	C.R.	P	Label
SS_xxvii	<---	Relationship_Quality	1.000				
SS_xxiv	<---	Relationship_Quality	1.016	.082	12.456	***	
SS_xvii	<---	Relationship_Quality	.911	.080	11.410	***	
KH_ix	<---	Product_Development_Support	4.842	.472	10.255	***	
KH_viii	<---	Product_Development_Support	5.246	.461	11.380	***	
TR_xii	<---	Trust1	1.000				
TR_vii	<---	Trust1	.983	.082	11.966	***	
TR_ii	<---	Trust1	.899	.086	10.447	***	
CM_xvi	<---	Commitment1	1.000				
CM_xviii	<---	Commitment1	1.216	.145	8.406	***	
CM_xxi	<---	Commitment1	1.073	.092	11.645	***	
RV_iv	<---	Relationship_value	1.000				
RV_xxvi	<---	Relationship_value	1.165	.147	7.938	***	
RV_ixxx	<---	Relationship_value	.947	.114	8.313	***	
RT_iii	<---	Retention	3.980	.283	14.040	***	
DP_xxv	<---	ProductAnd_ServiceSupport	1.121	.120	9.321	***	
DP_xx	<---	ProductAnd_ServiceSupport	1.205	.134	9.022	***	
DP_i	<---	ProductAnd_ServiceSupport	.874	.113	7.746	***	
PI_vi	<--	ProductAnd_ServiceSupp	1.041	.105	9.867	***	

			Estimate	S.E.	C.R.	P	Label
	-	ort					
PI_x	<-- -	Relationship_Quality	1.001	.092	10.824	***	
KH_xv	<-- -	Relationship_Quality	.998	.104	9.578	***	
PI_xxii	<-- -	Relationship_Quality	1.116	.073	15.359	***	
TM_xi	<-- -	Product_Development_Support	5.177	.448	11.565	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
Trust1	<---	ProductAnd_ServiceSupport	.323
Trust1	<---	Relationship_Quality	.663
Commitment1	<---	Trust1	.837
Relationship_value	<---	Commitment1	.526
Relationship_value	<---	Trust1	.516
Retention	<---	Relationship_value	.649
PQ_v	<---	ProductAnd_ServiceSupport	.767
PQ_xix	<---	ProductAnd_ServiceSupport	.835
PQ_xxiii	<---	ProductAnd_ServiceSupport	.857
SS_xxvii	<---	Relationship_Quality	.883
SS_xxiv	<---	Relationship_Quality	.826
SS_xvii	<---	Relationship_Quality	.787
KH_ix	<---	Product_Development_Support	.790
KH_viii	<---	Product_Development_Support	.856
TR_xii	<---	Trust1	.812
TR_vii	<---	Trust1	.869
TR_ii	<---	Trust1	.784
CM_xvi	<---	Commitment1	.831
CM_xviii	<---	Commitment1	.694
CM_xxi	<---	Commitment1	.885

			Estimate
RV_iv	<---	Relationship_value	.703
RV_xxvi	<---	Relationship_value	.752
RV_ixxx	<---	Relationship_value	.789
RT_iii	<---	Retention	.982
DP_xxv	<---	ProductAnd_ServiceSupport	.780
DP_xx	<---	ProductAnd_ServiceSupport	.762
DP_i	<---	ProductAnd_ServiceSupport	.661
PI_vi	<---	ProductAnd_ServiceSupport	.816
PI_x	<---	Relationship_Quality	.765
KH_xv	<---	Relationship_Quality	.710
PI_xxii	<---	Relationship_Quality	.920
TM_xi	<---	Product_Development_Support	.883

Intercepts: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
DP_i	5.849	.094	62.070	***	
DP_xx	5.561	.113	49.386	***	
DP_xxv	5.737	.102	56.108	***	
PQ_v	5.868	.093	63.175	***	
PQ_xix	5.798	.097	59.943	***	
PQ_xxiii	5.904	.080	73.765	***	
TM_xi	5.205	.121	43.157	***	
SS_xxvii	5.877	.088	67.160	***	
SS_xxiv	5.675	.095	59.680	***	
SS_xvii	5.842	.089	65.302	***	
KH_xv	5.434	.109	50.012	***	
KH_ix	5.173	.126	41.012	***	
KH_viii	5.482	.126	43.476	***	
PI_xxii	5.779	.094	61.618	***	
PI_vi	5.832	.091	64.218	***	
PI_x	5.728	.101	56.635	***	

	Estimate	S.E.	C.R.	P	Label
TR_xii	5.800	.099	58.822	***	
TR_vii	5.939	.091	65.542	***	
TR_ii	5.786	.092	63.019	***	
CM_xvi	5.788	.088	65.702	***	
CM_xviii	5.579	.128	43.482	***	
CM_xxi	5.628	.089	63.394	***	
RV_iv	5.728	.093	61.884	***	
RV_xxvi	5.544	.101	55.059	***	
RV_ixxx	5.947	.078	76.108	***	
RT_iii	5.619	.110	51.268	***	

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ef1	<-->	ef3	.591	.098	6.060	***	
e1DP	<-->	e3TR	.308	.053	5.794	***	
e2DP	<-->	e3DP	.292	.064	4.580	***	
e3SS	<-->	e1KH	.222	.051	4.317	***	
e1PI	<-->	ef1	-.108	.021	-5.128	***	
e1DP	<-->	e1SS	.087	.028	3.151	.002	
e1PI	<-->	e3CM	.090	.025	3.664	***	
e3PI	<-->	ef10	.078	.023	3.452	***	
e1PQ	<-->	e3KH	.179	.055	3.233	.001	
e2PQ	<-->	e2CM	.208	.060	3.492	***	
e2PQ	<-->	e2KH	.178	.053	3.361	***	
e3DP	<-->	e3SS	-.087	.031	-2.817	.005	
e2TR	<-->	e1RV	-.106	.036	-2.915	.004	

Correlations: (Group number 1 - Default model)

			Estimate
ef1	<-->	ef3	.910
e1DP	<-->	e3TR	.647
e2DP	<-->	e3DP	.530

			Estimate
e3SS	<-->	e1KH	.445
e1PI	<-->	ef1	-.350
e1DP	<-->	e1SS	.254
e1PI	<-->	e3CM	.501
e3PI	<-->	ef10	.493
e1PQ	<-->	e3KH	.390
e2PQ	<-->	e2CM	.359
e2PQ	<-->	e2KH	.367
e3DP	<-->	e3SS	-.208
e2TR	<-->	e1RV	-.303

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ef1	.598	.119	5.021	***	
ef3	.705	.115	6.122	***	
ef10	.050				
ef9	.190	.044	4.327	***	
ef8	.001				
ef5	.050				
ef7	.050				
e1RT	.050				
e1DP	.590	.078	7.578	***	
e2DP	.628	.089	7.022	***	
e3DP	.482	.069	7.014	***	
e1PQ	.420	.060	7.036	***	
e2PQ	.334	.050	6.669	***	
e3PQ	.200	.031	6.406	***	
e1TM	.377	.092	4.074	***	
e1SS	.199	.029	6.905	***	
e2SS	.340	.047	7.271	***	
e3SS	.360	.048	7.449	***	

	Estimate	S.E.	C.R.	P	Label
e1KH	.690	.092	7.503	***	
e2KH	.705	.116	6.059	***	
e3KH	.500	.106	4.734	***	
e1PI	.159	.032	4.964	***	
e2PI	.325	.048	6.771	***	
e3PI	.500	.067	7.469	***	
e1TR	.390	.055	7.064	***	
e2TR	.238	.036	6.590	***	
e3TR	.383	.054	7.149	***	
e1CM	.283	.047	6.056	***	
e2CM	1.008	.144	7.023	***	
e3CM	.202	.042	4.846	***	
e1RV	.512	.070	7.336	***	
e2RV	.519	.071	7.260	***	
e3RV	.272	.038	7.147	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
Relationship_Quality	.000
ProductAnd_ServiceSupport	.000
Trust1	.934
Commitment1	.700
Relationship_value	.998
Retention	.421
Product_Development_Support	.000
RT_iii	.965
RV_ixxx	.622
RV_xxvi	.566
RV_iv	.494
CM_xxi	.783
CM_xviii	.481

	Estimate
CM_xvi	.691
TR_ii	.615
TR_vii	.754
TR_xii	.660
PI_x	.585
PI_vi	.666
PI_xxii	.846
KH_viii	.734
KH_ix	.624
KH_xv	.504
SS_xvii	.619
SS_xxiv	.682
SS_xxvii	.780
TM_xi	.781
PQ_xxiii	.735
PQ_xix	.697
PQ_v	.588
DP_xxv	.609
DP_xx	.580
DP_i	.437

Modification Indices (Group number 1 - Default model)

Covariances: (Group number 1 - Default model)

			M.I.	Par Change
ef5	<-->	ef3	4.851	.022
ef5	<-->	ef9	6.831	.030
e3RV	<-->	ef9	4.493	.055
e2RV	<-->	ef3	5.012	.072
e2RV	<-->	ef10	4.049	-.045
e2RV	<-->	ef9	4.139	-.073
e1RV	<-->	ef8	4.988	.050

			M.I.	Par Change
e2CM	<-->	e3RV	4.310	.101
e2CM	<-->	e2RV	4.198	-.137
e3TR	<-->	ef7	5.421	.024
e3TR	<-->	e1RT	5.421	.097
e2TR	<-->	e3TR	4.565	.048
e3PI	<-->	e3RV	5.885	-.080
e3PI	<-->	e2RV	5.013	.102
e2PI	<-->	ef3	4.650	.055
e2PI	<-->	ef1	4.534	-.048
e2PI	<-->	ef5	5.517	.031
e2KH	<-->	e1RV	5.752	.137
e3SS	<-->	e2RV	4.034	.072
e2SS	<-->	e2TR	4.671	-.060
e1SS	<-->	ef9	4.307	.044
e1SS	<-->	e3RV	6.264	.054
e1TM	<-->	e2TR	4.320	-.075
e1TM	<-->	e1TR	4.949	.103
e1TM	<-->	e1KH	5.100	.119
e3PQ	<-->	ef5	4.827	-.023
e3PQ	<-->	e3CM	7.053	-.060
e3PQ	<-->	e3PI	5.240	-.069
e3PQ	<-->	e1PI	4.737	.041
e2PQ	<-->	ef3	4.113	-.047
e1PQ	<-->	e2RV	6.416	-.110
e1PQ	<-->	e1RV	7.059	-.111
e1PQ	<-->	e1CM	4.206	.071
e1PQ	<-->	e3PI	4.291	-.081
e3DP	<-->	e2PI	5.859	-.078
e2DP	<-->	e2RV	5.118	.103
e2DP	<-->	e2PI	5.257	.085
e2DP	<-->	e1PI	7.195	.071

			M.I.	Par Change
e2DP	<-->	e2KH	4.868	.118
e2DP	<-->	e1PQ	4.864	-.087
e1DP	<-->	e1TR	6.851	.089
e1DP	<-->	e1PQ	5.181	-.076

Variances: (Group number 1 - Default model)

	M.I.	Par Change

Regression Weights: (Group number 1 - Default model)

			M.I.	Par Change
Product_Development_Support	<---	Relationship_Quality	46.403	.178
Product_Development_Support	<---	ProductAnd_ServiceSupport	48.105	.201
Product_Development_Support	<---	Trust1	49.708	.180
Product_Development_Support	<---	Commitment1	52.794	.207
Product_Development_Support	<---	Relationship_value	54.434	.232
Product_Development_Support	<---	Retention	33.640	.437
PI_vi	<---	Product_Development_Support	5.517	.617
KH_ix	<---	Relationship_Quality	8.695	.284
KH_ix	<---	ProductAnd_ServiceSupport	8.145	.304
KH_ix	<---	Trust1	7.632	.260
KH_ix	<---	Relationship_value	5.031	.259
TM_xi	<---	ProductAnd_ServiceSupport	4.204	.194
TM_xi	<---	Trust1	4.222	.172
TM_xi	<---	Commitment1	6.200	.233
TM_xi	<---	Relationship_value	5.477	.241
TM_xi	<---	Retention	6.330	.621
PQ_xxiii	<---	Product_Development_Support	4.827	-.465

Means: (Group number 1 - Default model)

	M.I.	Par Change

Intercepts: (Group number 1 - Default model)

	M.I.	Par Change

Minimization History (Default model)

Iteration		Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	e	20		-35.534	9999.000	5789.875	0	9999.000
1	e	18		-1.765	5.342	2926.803	18	.023
2	e	25		-2.320	1.926	2161.865	5	.491
3	e	19		-.926	.828	1801.776	4	.643
4	e*	9		-.412	.524	1530.320	5	.932
5	e*	2		-.208	1.313	1163.483	6	.734
6	e	1		-.089	.987	900.708	5	.938
7	e	1		-.083	.655	816.369	5	.973
8	e	3		-.144	5.361	672.377	12	.417
9	e	0	13842.861		.600	601.819	9	.857
10	e	0	7011.434		.468	575.887	5	.000
11	e	0	7294.103		.549	559.732	2	.000
12	e	0	9255.796		.373	556.328	1	1.089
13	e	0	9326.418		.046	556.190	1	1.041
14	e	0	9359.695		.002	556.189	1	1.003
15	e	0	9267.024		.000	556.189	1	1.015

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	94	556.189	283	.000	1.965
Saturated model	377	.000	0		
Independence model	52	3089.066	325	.000	9.505

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.820	.793	.903	.886	.901

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.871	.714	.785
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	273.189	210.057	344.111
Saturated model	.000	.000	.000
Independence model	2764.066	2589.725	2945.776

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	4.713	2.315	1.780	2.916
Saturated model	.000	.000	.000	.000
Independence model	26.179	23.424	21.947	24.964

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.090	.079	.102	.000
Independence model	.268	.260	.277	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	744.189	799.969		
Saturated model	754.000	977.714		
Independence model	3193.066	3223.923		

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	6.307	5.772	6.908	6.779
Saturated model	6.390	6.390	6.390	8.286
Independence model	27.060	25.582	28.600	27.321

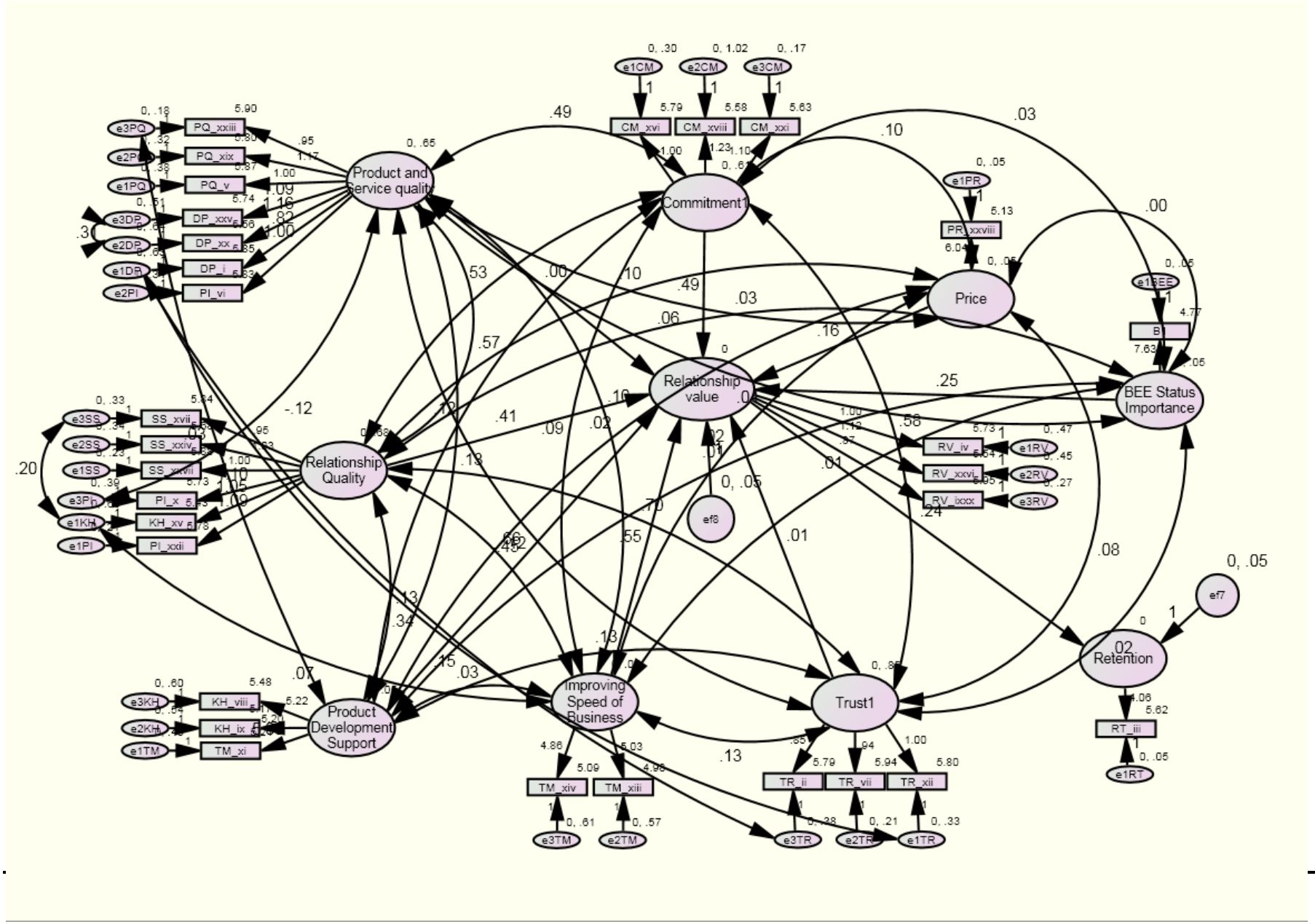
HOELTER

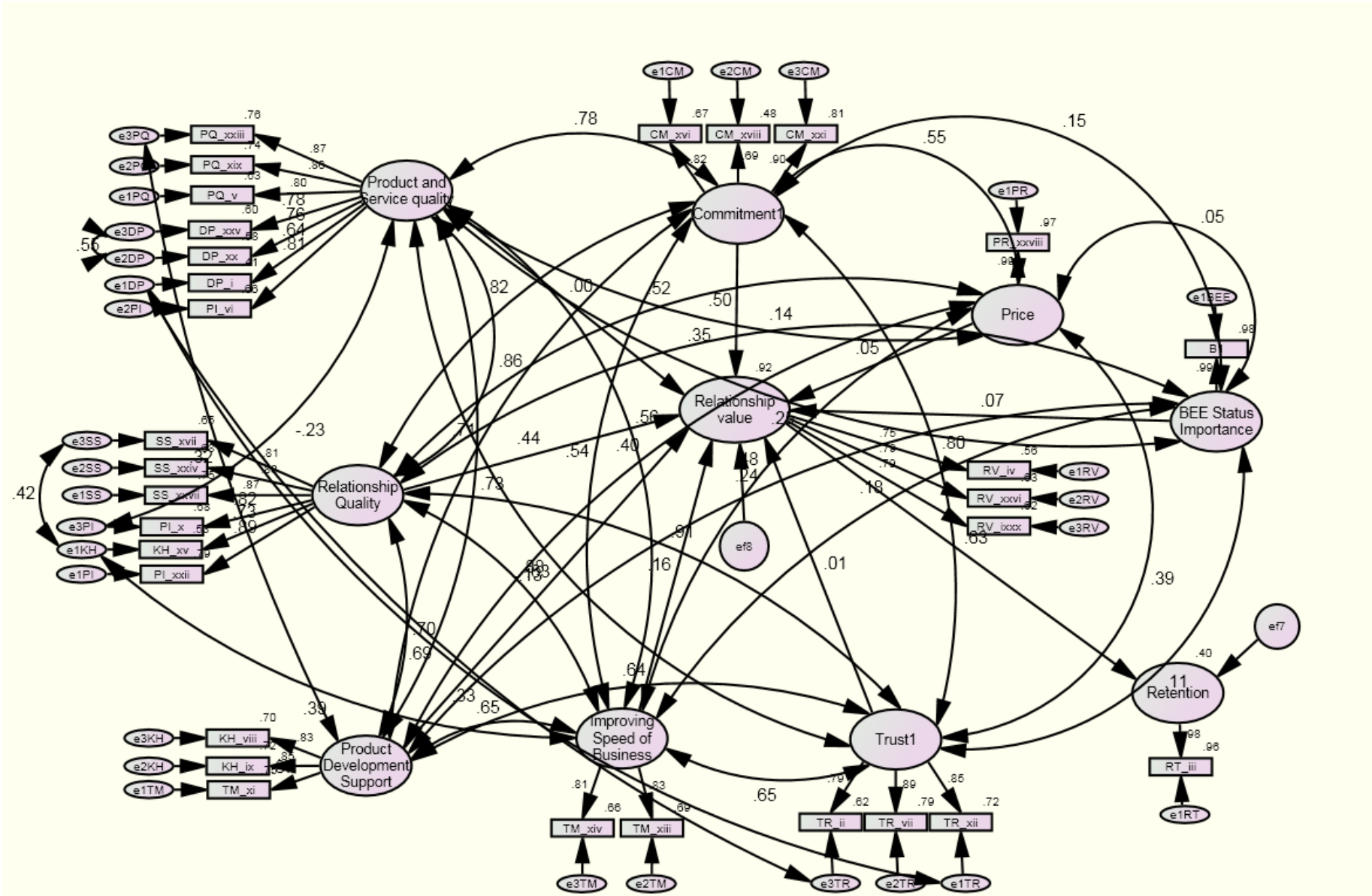
Model	HOELTER .05	HOELTER .01
Default model	69	73
Independence model	15	15

Execution time summary

Minimization:	.093
Miscellaneous:	1.528
Bootstrap:	.000
Total:	1.621

Annexure L **– SEM OUTPUTS – INCONCLUSIVE MODEL**


Product and Service quality
Commitment1
Price
Relationship value
BEE Status Importance
Relationship Quality
Improving Speed of Business
Trust1
Product Development Support
02 Retention
PQ_xxiii
PQ_xix
PQ_v
DP_xxv
DP_xx
DP_i
PI_vi
CM_xvi
CM_xviii
CM_xxi
PR_xxviii
BI
SS_xvii
SS_xxiv
SS_xxvii
PI_x
KH_xv
PI_xxii
RV_iv
RV_xxvi
RV_ixxx
KH_viii
KH_ix
TM_xi
TM_xiv
TM_xiii
TR_ii
TR_vii
TR_xii
RT_iii
ef8
ef7


Product and Service quality
Commitment1
Price
BEE Status Importance
Relationship value
Relationship Quality
Product Development Support
Improving Speed of Business
Trust1
11 Retention
PQ_xxiii
PQ_xix
PQ_v
DP_xxv
DP_xx
DP_i
PI_vi
CM_xvi
CM_xviii
CM_xxi
PR_xxviii
B1
SS_xvii
SS_xxiv
SS_xxviii
PI_x
KH_xv
PI_xxii
RV_iv
RV_xxvi
RV_ixxx
KH_viii
KH_ix
TM_xi
TM_xiv
TM_xiii
TR_ii
TR_vii
TR_xii
RT_iii
ef8
ef7
e1CM
e2CM
e3CM
e1PR
e1BEE
e1RV
e2RV
e3RV
e3PQ
e2PQ
e1PQ
e3DP
e2DP
e1DP
e2PI
e3SS
e2SS
e1SS
e3PI
e1KH
e1PI
e3KH
e2KH
e1TM
e3TM
e2TM
e3TR
e2TR
e1TR
e1RT

Analysis Summary

Date and Time

Date: 30 March 2011

Time: 02:13:30 AM

Title

09 sem model alternatief: 30 March 2011 02:13 AM

Groups

Group number 1 (Group number 1)

Notes for Group (Group number 1)

The model is recursive.

Sample size = 119

Variable Summary (Group number 1)

Your model contains the following variables (Group number 1)

Observed, endogenous variables

DP_i

DP_xx

DP_xxv

PQ_v

PQ_xix

PQ_xxiii

TM_xi

TM_xiii

TM_xiv

SS_xxvii

SS_xxiv

SS_xvii

KH_xv

KH_ix

KH_viii

PI_xxii

PI_vi

PI_x
TR_xii
TR_vii
TR_ii
CM_xvi
CM_xviii
CM_xxi
RV_iv
RV_xxvi
RV_ixxx
RT_iii
PR_xxviii
B1
Unobserved, endogenous variables
Relationship_value
Retention
Unobserved, exogenous variables
e1DP
e2DP
e3DP
Product and_Service quality
e1PQ
e2PQ
e3PQ
e1TM
Improving_Speed of_Business
e2TM
e3TM
Relationship_Quality
e1SS
e2SS
e3SS
e1KH
Product_Development_Support
e2KH

e3KH
e1PI
e2PI
e3PI
Trust1
e1TR
e2TR
e3TR
Commitment1
e1CM
e2CM
e3CM
e1RV
e2RV
e3RV
e1RT
Price
e1PR
BEE Status_Importance
e1BEE
ef7
ef8

Variable counts (Group number 1)

Number of variables in your model:	72
Number of observed variables:	30
Number of unobserved variables:	42
Number of exogenous variables:	40
Number of endogenous variables:	32

Parameter summary (Group number 1)

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	37	0	9	0	0	46
Labeled	0	0	0	0	0	0
Unlabeled	34	35	31	0	30	130

	Weights	Covariances	Variances	Means	Intercepts	Total
Total	71	35	40	0	30	176

Models

Default model (Default model)

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments: 495

Number of distinct parameters to be estimated: 130

Degrees of freedom (495 - 130): 365

Result (Default model)

Minimum was achieved

Chi-square = 737.348

Degrees of freedom = 365

Probability level = .000

Group number 1 (Group number 1 - Default model)

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Relationship_value	<---	Commitment1	.494	.153	3.224	.001	
Relationship_value	<---	Price	.156	.287	.545	.586	
Relationship_value	<---	BEE Status_Importance	.245	.204	1.201	.230	
Relationship_value	<---	Product and_Service quality	-.001	.146	-.009	.993	
Relationship_value	<---	Relationship_Quality	.413	.204	2.023	.043	

			Estimate	S.E.	C.R.	P	Label
Relationship_value	<---	Product_Development_Support	-.449	.384	-1.170	.242	
Relationship_value	<---	Improving_Speed of_Business	.546	.347	1.572	.116	
Relationship_value	<---	Trust1	.012	.196	.063	.950	
Retention	<---	Relationship_value	.236	.040	5.963	***	
PQ_v	<---	Product and_Service quality	1.000				
PQ_xix	<---	Product and_Service quality	1.174	.107	10.930	***	
PQ_xxiii	<---	Product and_Service quality	.946	.085	11.136	***	
TM_xiii	<---	Improving_Speed of_Business	5.028	.478	10.529	***	
TM_xiv	<---	Improving_Speed of_Business	4.856	.476	10.200	***	
SS_xxvii	<---	Relationship_Quality	1.000				
SS_xxiv	<---	Relationship_Quality	1.031	.087	11.794	***	
SS_xvii	<---	Relationship_Quality	.953	.084	11.354	***	
KH_ix	<---	Product_Development_Support	5.204	.467	11.148	***	
KH_viii	<---	Product_Development_Support	5.220	.479	10.890	***	
TR_xii	<---	Trust1	1.000				
TR_vii	<---	Trust1	.944	.074	12.803	***	
TR_ii	<---	Trust1	.847	.081	10.522	***	
CM_xvi	<---	Commitment1	1.000				
CM_xviii	<---	Commitment1	1.232	.151	8.150	***	

			Estimate	S.E.	C.R.	P	Label
CM_xxi	<---	Commitment1	1.098	.094	11.624	***	
RV_iv	<---	Relationship_value	1.000				
RV_xxvi	<---	Relationship_value	1.119	.123	9.072	***	
RV_ixxx	<---	Relationship_value	.867	.096	9.060	***	
RT_iii	<---	Retention	4.055	.295	13.769	***	
PR_xxviii	<---	Price	6.040	.404	14.952	***	
B1	<---	BEE Status_Importance	7.632	.505	15.103	***	
DP_xxv	<---	Product and_Service quality	1.088	.114	9.501	***	
DP_xx	<---	Product and_Service quality	1.161	.125	9.256	***	
DP_i	<---	Product and_Service quality	.818	.106	7.682	***	
PI_vi	<---	Product and_Service quality	.995	.099	10.035	***	
PI_x	<---	Relationship_Quality	1.099	.094	11.727	***	
KH_xv	<---	Relationship_Quality	1.052	.109	9.630	***	
PI_xxii	<---	Relationship_Quality	1.089	.080	13.691	***	
TM_xi	<---	Product_Development_Support	5.084	.441	11.541	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
Relationship_value	<---	Commitment1	.499
Relationship_value	<---	Price	.045

			Estimate
Relationship_value	<---	BEE Status_Importance	.071
Relationship_value	<---	Product and_Service quality	-.001
Relationship_value	<---	Relationship_Quality	.441
Relationship_value	<---	Product_Development_Support	-.129
Relationship_value	<---	Improving_Speed of_Business	.157
Relationship_value	<---	Trust1	.015
Retention	<---	Relationship_value	.633
PQ_v	<---	Product and_Service quality	.796
PQ_xix	<---	Product and_Service quality	.861
PQ_xxiii	<---	Product and_Service quality	.874
TM_xiii	<---	Improving_Speed of_Business	.830
TM_xiv	<---	Improving_Speed of_Business	.811
SS_xxvii	<---	Relationship_Quality	.867
SS_xxiv	<---	Relationship_Quality	.825
SS_xvii	<---	Relationship_Quality	.808
KH_ix	<---	Product_Development_Support	.846
KH_viii	<---	Product_Development_Support	.834
TR_xii	<---	Trust1	.849
TR_vii	<---	Trust1	.886
TR_ii	<---	Trust1	.786
CM_xvi	<---	Commitment1	.818
CM_xviii	<---	Commitment1	.691
CM_xxi	<---	Commitment1	.900
RV_iv	<---	Relationship_value	.751
RV_xxvi	<---	Relationship_value	.791
RV_ixxx	<---	Relationship_value	.790
RT_iii	<---	Retention	.982
PR_xxviii	<---	Price	.987
B1	<---	BEE Status_Importance	.992
DP_xxv	<---	Product and_Service quality	.777
DP_xx	<---	Product and_Service quality	.762

			Estimate
DP_i	<---	Product and_Service quality	.640
PI_vi	<---	Product and_Service quality	.809
PI_x	<---	Relationship_Quality	.824
KH_xv	<---	Relationship_Quality	.731
PI_xxii	<---	Relationship_Quality	.891
TM_xi	<---	Product_Development_Support	.865

Intercepts: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
DP_i	5.849	.095	61.466	***	
DP_xx	5.561	.113	49.048	***	
DP_xxv	5.737	.104	55.091	***	
PQ_v	5.868	.094	62.740	***	
PQ_xix	5.798	.102	57.083	***	
PQ_xxiii	5.904	.081	73.299	***	
TM_xi	5.205	.121	43.032	***	
TM_xiii	4.982	.125	39.956	***	
TM_xiv	5.088	.123	41.285	***	
SS_xxvii	5.877	.088	66.928	***	
SS_xxiv	5.675	.095	59.680	***	
SS_xvii	5.842	.090	65.079	***	
KH_xv	5.434	.110	49.600	***	
KH_ix	5.173	.127	40.867	***	
KH_viii	5.482	.129	42.538	***	
PI_xxii	5.779	.093	62.132	***	
PI_vi	5.832	.092	63.722	***	
PI_x	5.728	.101	56.453	***	
TR_xii	5.800	.100	58.055	***	
TR_vii	5.939	.090	65.745	***	
TR_ii	5.786	.091	63.287	***	
CM_xvi	5.788	.088	65.720	***	

	Estimate	S.E.	C.R.	P	Label
CM_xviii	5.579	.128	43.423	***	
CM_xxi	5.628	.088	64.062	***	
RV_iv	5.728	.095	60.260	***	
RV_xxvi	5.544	.101	54.912	***	
RV_ixxx	5.947	.078	75.907	***	
RT_iii	5.619	.110	51.185	***	
PR_xxviii	5.133	.126	40.729	***	
B1	4.774	.158	30.126	***	

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Product and_Service quality	<-->	Relationship_Quality	.574	.097	5.910	***	
Product and_Service quality	<-->	Product_Development_Support	.131	.018	7.341	***	
Product and_Service quality	<-->	Improving_Speed of_Business	.101	.018	5.531	***	
Product and_Service quality	<-->	Price	.063	.017	3.664	***	
BEE Status_Importance	<-->	Product and_Service quality	.045	.017	2.626	.009	
Product and_Service quality	<-->	Commitment1	.491	.090	5.461	***	
Product and_Service quality	<-->	Trust1	.656	.111	5.918	***	
Improving_Speed of_Business	<-->	Relationship_Quality	.116	.018	6.367	***	
Relationship_Quality	<-->	Product_Development_Support	.129	.017	7.491	***	
Relationship_Quality	<-->	Trust1	.695	.111	6.281	***	
Relationship_Quality	<-->	Commitment1	.531	.092	5.800	***	
Relationship_Quality	<-->	Price	.095	.017	5.505	***	
BEE Status_Importance	<-->	Relationship_Quality	.025	.018	1.414	.157	
Improving_Speed of_Business	<-->	Product_Development_Support	.032	.003	9.997	***	
Improving_Speed of_Business	<-->	Trust1	.135	.020	6.620	***	
Improving_Speed of_Business	<-->	Commitment1	.094	.018	5.220	***	
Improving_Speed of_Business	<-->	Price	.024	.004	6.227	***	
BEE Status_Importance	<-->	Improving_Speed of_Business	.009	.005	1.895	.058	
Product_Development_Support	<-->	Trust1	.131	.020	6.613	***	
Product_Development_Support	<-->	Commitment1	.124	.017	7.133	***	
Product_Development_Support	<-->	Price	.020	.004	4.949	***	
BEE Status_Importance	<-->	Product_Development_Support	.012	.004	2.699	.007	
Trust1	<-->	Commitment1	.577	.102	5.670	***	
Trust1	<-->	Price	.081	.020	4.100	***	
BEE Status_Importance	<-->	Trust1	.022	.020	1.128	.259	

			Estimate	S.E.	C.R.	P	Label
Commitment1	<-->	Price	.096	.017	5.612	***	
BEE Status_Importance	<-->	Commitment1	.025	.017	1.469	.142	
BEE Status_Importance	<-->	Price	.003	.005	.563	.573	
e1DP	<-->	e3TR	.336	.055	6.107	***	
e2DP	<-->	e3DP	.310	.065	4.742	***	
e1KH	<-->	Improving_Speed of_Business	.071	.013	5.321	***	
e3SS	<-->	e1KH	.198	.046	4.280	***	
e3PI	<-->	Product and_Service quality	-.118	.029	-4.121	***	
e1DP	<-->	e1TR	.150	.038	3.935	***	
e3PQ	<-->	Product_Development_Support	-.030	.007	-4.244	***	

Correlations: (Group number 1 - Default model)

			Estimate
Product and_Service quality	<-->	Relationship_Quality	.859
Product and_Service quality	<-->	Product_Development_Support	.726
Product and_Service quality	<-->	Improving_Speed of_Business	.558
Product and_Service quality	<-->	Price	.350
BEE Status_Importance	<-->	Product and_Service quality	.248
Product and_Service quality	<-->	Commitment1	.777
Product and_Service quality	<-->	Trust1	.880
Improving_Speed of_Business	<-->	Relationship_Quality	.628
Relationship_Quality	<-->	Product_Development_Support	.698
Relationship_Quality	<-->	Trust1	.913
Relationship_Quality	<-->	Commitment1	.822
Relationship_Quality	<-->	Price	.516
BEE Status_Importance	<-->	Relationship_Quality	.136
Improving_Speed of_Business	<-->	Product_Development_Support	.648
Improving_Speed of_Business	<-->	Trust1	.654
Improving_Speed of_Business	<-->	Commitment1	.537
Improving_Speed of_Business	<-->	Price	.480
BEE Status_Importance	<-->	Improving_Speed of_Business	.176
Product_Development_Support	<-->	Trust1	.636
Product_Development_Support	<-->	Commitment1	.707

			Estimate
Product_Development_Support	<-->	Price	.402
BEE Status_Importance	<-->	Product_Development_Support	.243
Trust1	<-->	Commitment1	.801
Trust1	<-->	Price	.392
BEE Status_Importance	<-->	Trust1	.109
Commitment1	<-->	Price	.551
BEE Status_Importance	<-->	Commitment1	.145
BEE Status_Importance	<-->	Price	.053
e1DP	<-->	e3TR	.690
e2DP	<-->	e3DP	.547
e1KH	<-->	Improving_Speed of_Business	.389
e3SS	<-->	e1KH	.425
e3PI	<-->	Product and_Service quality	-.233
e1DP	<-->	e1TR	.329
e3PQ	<-->	Product_Development_Support	-.319

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Improving_Speed of_Business	.050				
Product_Development_Support	.050				
Price	.050				
BEE Status_Importance	.050				
Product and_Service quality	.654	.127	5.156	***	
Relationship_Quality	.683	.116	5.886	***	
Trust1	.849	.149	5.686	***	
Commitment1	.612	.116	5.278	***	
ef8	.050				
ef7	.050				
e1RT	.050				
e1PR	.050				
e1BEE	.050				

	Estimate	S.E.	C.R.	P	Label
e1DP	.631	.081	7.758	***	
e2DP	.636	.089	7.126	***	
e3DP	.506	.072	7.072	***	
e1PQ	.379	.054	7.003	***	
e2PQ	.316	.048	6.533	***	
e3PQ	.181	.029	6.143	***	
e1TM	.434	.082	5.313	***	
e2TM	.570	.114	4.988	***	
e3TM	.614	.114	5.386	***	
e1SS	.227	.034	6.580	***	
e2SS	.341	.049	6.912	***	
e3SS	.331	.047	6.997	***	
e1KH	.660	.087	7.604	***	
e2KH	.536	.094	5.677	***	
e3KH	.597	.102	5.878	***	
e1PI	.210	.034	6.252	***	
e2PI	.341	.049	6.933	***	
e3PI	.390	.057	6.818	***	
e1TR	.328	.052	6.305	***	
e2TR	.207	.034	6.064	***	
e3TR	.377	.055	6.848	***	
e1CM	.303	.049	6.207	***	
e2CM	1.018	.145	7.037	***	
e3CM	.172	.039	4.445	***	
e1RV	.465	.067	6.947	***	
e2RV	.450	.068	6.660	***	
e3RV	.272	.041	6.666	***	

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
Relationship_value	.917

	Estimate
Retention	.401
B1	.983
PR_xxviii	.973
RT_iii	.965
RV_ixxx	.624
RV_xxvi	.625
RV_iv	.563
CM_xxi	.811
CM_xviii	.477
CM_xvi	.669
TR_ii	.618
TR_vii	.785
TR_xii	.721
PI_x	.679
PI_vi	.655
PI_xxii	.794
KH_viii	.695
KH_ix	.716
KH_xv	.534
SS_xvii	.652
SS_xxiv	.681
SS_xxvii	.751
TM_xiv	.658
TM_xiii	.689
TM_xi	.749
PQ_xxiii	.764
PQ_xix	.741
PQ_v	.633
DP_xxv	.604
DP_xx	.581
DP_i	.410

Minimization History (Default model)

Iteration		Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	e	31		-145.150	9999.000	16216.687	0	9999.000
1	e	28		-592.652	1.248	11605.960	12	.146
2	e	29		-33.725	.153	10129.297	7	.505
3	e	25		-31.832	1.180	7098.809	9	.326
4	e	24		-5.633	.389	5244.114	5	1.008
5	e	24		-5.916	.896	3838.814	8	.854
6	e	24		-2.899	.472	3368.582	6	.971
7	e	26		-1.282	.882	2788.523	7	.955
8	e*	21		-.728	.702	2436.702	6	.856
9	e*	14		-.628	1.121	1914.258	5	.977
10	e*	5		-.581	.782	1588.495	4	.942
11	e	3		-.401	.999	1300.772	5	.806
12	e	3		-1.262	.721	1160.559	5	.817
13	e	2		-.159	.487	1092.001	5	.747
14	e	2		-.226	.899	1011.997	5	.840
15	e	1		-.040	.673	973.766	5	.833
16	e	2		-1.254	.878	953.865	4	.384
17	e	2		-.072	.459	914.353	5	.516
18	e*	1		-.063	1.609	854.294	6	.535
19	e	1		-.077	.059	834.999	11	.734
20	e	0	47685.256		1.200	792.431	14	.749
21	e	0	190970.961		2.402	770.131	1	.423
22	e	0	133118.245		.708	743.199	1	1.206
23	e	0	119856.185		.215	737.872	1	1.165
24	e	0	112036.600		.050	737.357	1	1.081
25	e	0	110605.037		.008	737.348	1	1.014
26	e	0	109912.624		.000	737.348	1	1.000

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	130	737.348	365	.000	2.020
Saturated model	495	.000	0		

Model	NPAR	CMIN	DF	P	CMIN/DF
Independence model	60	3523.756	435	.000	8.101

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.791	.751	.882	.856	.879
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.839	.664	.738
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	372.348	298.710	453.757
Saturated model	.000	.000	.000
Independence model	3088.756	2903.211	3281.663

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	6.249	3.155	2.531	3.845
Saturated model	.000	.000	.000	.000
Independence model	29.862	26.176	24.603	27.811

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.093	.083	.103	.000
Independence model	.245	.238	.253	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	997.348	1089.991		
Saturated model	990.000	1342.759		
Independence model	3643.756	3686.515		

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	8.452	7.828	9.142	9.237
Saturated model	8.390	8.390	8.390	11.379
Independence model	30.879	29.307	32.514	31.242

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	66	69
Independence model	17	17

Execution time summary

Minimization:	.203
Miscellaneous:	5.553
Bootstrap:	.000
Total:	5.756