

Relationship Value, Trust And Supplier Retention In South African Automotive Supply Chains

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ABSTRACT

Suppliers have a particular role to play in assuring competitiveness in supply chains. This article investigates the relationship between first and second tier suppliers in automotive supply chains in South Africa. Automotive component suppliers (first tier suppliers to assemblers (OEMs) such as Toyota) should make an extra effort to retain their suppliers (second tier), particularly suppliers of strategic parts, to assure the best value adding by the suppliers in the highly competitive supply chain landscape. To assure best value from suppliers they need to be retained in an active trusting, long term, collaborative relationship. The more the customer trusts the supplier, the higher the perceived value of the relationship and the more likely parties will work together to retain the business relationship. The aim of this quantitative study amongst first tier suppliers is to obtain more insight into the relationships and the hierarchical correlation between the relationship value, trust and supplier retention in automotive supply chains in South Africa. With a regression analysis it was found that both trust and relationship value are substantial predictors of supplier retention, but trust is more important for supplier retention.

Keywords: Trust; Automotive Supply Chain; Relationship Value; Supplier Retention; Collaborative Relationships

1. INTRODUCTION

he automotive industry is essential to the well-being of the global community” (Bronkhorst, Steyn, and Stiglingh, 2013: p. 1281). During the last century, the automotive industry became a flagship for all global industrial industries (Thormé, Scavarda, Pires, Ceryno, and Klingebiel, 2014: p. 92). The automotive industry is the largest manufacturing sector in the world and in South Africa (Ambe and Badenhorst-Weiss, 2013: p. 3). The automotive sector in South Africa makes an important contribution to the economy in terms of its contribution to GDP, exports (AIEC, 2015: p. 9), employment opportunities, and driving of sustainability (Bronkhorst, et al., 2013: p. 1281).

Due to increased globalization and fierce competition, the automotive industry is exposed to boundless opportunities as well as numerous challenges (Ambe, 2014b: p. 1539; Muneer, Iqbal, and Long, 2014: p. 42). Suppliers have a particular role to play in assuring competitiveness in a supply chain. Traditionally, suppliers’ contribution laid in the continuous supplying of quality materials or services at a low cost, where and when it is needed (the so called *suppliers’ value package*). However, with the SCM approach all the parties in the supply chain work closely together in a collaborative relationship, seeking to improve the effectiveness and efficiency together to the advantage of all parties in the supply chain, particularly the satisfaction of the final consumer. The fundamental difference in supply chain management from traditional management lays in the management of the long term supplier relationships (Li, Ford, Zhai, and Xu, 2012: p. 5447). It is crucial in supply chain management to build and maintain long term relationships and maintain and retain business (Li, et al., 2012: p. 5445). The value of these long term relationships in supply chain management should not be underestimated and companies must actively strive towards nurturing of these relationships (Li, et al., 2012: p. 5445; Tripathi, 2014: p. 132). Collaborative relationships are intense and organizations cannot have too many suppliers to form collaborative relationships with. Therefore, collaborative relationships are usually preceded by supplier optimization. Supply base optimization is a strategy and process to

strategically reduce the number of suppliers and maintain a long term, *trusting relationship* with the smaller number of suppliers (retaining the suppliers) in order to assure the supply of value over the long term (Wisner, Tan and Leong, 2016: p. 115).

In this collaborative approach suppliers can contribute to value by working with customers to: (i) plan together (particularly on the quantities and time of final products needed in the market); (ii) cut costs in all operations over the supply chain (lean manufacturing); (iii) to improve quality by working together (eg. TQM, kaizan); (iv) to assist other members in the supply chain to reach the supply chain's targets; (v) to reduce the time it takes from the raw materials supplier to the final consumer; (vi) share information that may benefit or impact the supply chain as a whole; (vii) work towards innovative ideas (eg. product differentiation). When both parties cooperate, a climate of *trust* emerges between the parties, setting the stage for innovation ideas. 'Finding hidden capabilities is about putting each other's brains to work on challenges and to come up with something that is new and tangible' (Monczka, Handfield, Giunipero, and Patterson, 2016: p. 9). However, this will only be possible with a supplier relationship and agreement over a longer term (Chopra and Meindl, 2013: p. 472). Customers therefore seek to retain suppliers and extend business between them, which can add value through a relationship.

From the above discussion three dimensions has been identified – relationship value, trust and supplier retention. The question could be asked if the relationship between the first tier suppliers in the South African automotive industry and their suppliers (second tier suppliers) are valued and characterized by trust and supplier retention, and what is the correlation between the three dimensions.

Not many studies have been done in the area of the correlation between the relationship value, supplier retention and trust, particularly in the automotive supply chain. *Hence, the aim of this study and article contribute in this regard by determining, by means of an explorative, quantitative study, the relationship between the relationship value, supplier retention and trust between first and second tier suppliers in South African automotive supply chains.*

2. LITERATURE STUDY

2.1 The Automotive Industry and Supply Chains

Despite global economic slow-down the last number of years global automotive production set yet another record in 2014 and vehicle production rose by 2,6% in 2014 (AIEC, 2015: p. 9). South Africa was ranked 24th in the world in terms of global vehicle production with a market share of 0,63% (AIEC, 2015: p. 9).

The automotive sector makes an important contribution to the South African economy which is plagued with little growth, high unemployment of above 20 percent, youth-unemployment of 50 percent (WEF, 2014: p. 9) and high inequality in income (WEF, 2014: p. 7). No wonder that the automotive sector is regarded as the mainstay of the national industrial base in South Africa, accounting for 7,2% of GDP, 30,2% of manufacturing output and 11,7% of all South African exports (AIEC, 2015: p. 9). The automotive sector remains a key focal point in South Africa as one of the most critical sectors that drives sustainability, job creation (Bronkhorst, et al., 2013: p. 1286), international competitiveness and growth. South Africa is seen as providing the largest automotive market and most significant automotive center and supply chain cluster in Africa (AIEC, 2015: p. 9).

The automotive industry in South Africa is made up by complete supply chains with seven OEMs (Original Equipment Manufacturers), namely Ford, BMW, Volkswagen, Nissan, Toyota, General Motors, and Mercedes Benz, which are the focal companies of and creators of the most value of automotive supply chains. OEMs purchase entire subassemblies, such as interiors, power trains, and electronics from their suppliers. The aspiration to work with partners to outsource subassemblies is leading to a radically new infrastructure to support the design, purchasing (also known as procurement), and logistics processes of the manufacturers (Benko and McFarlan, 2004). The OEMs create 30 to 35 per cent of the value internally and source the rest from their suppliers (Afsharipour, Afshari, and Sahaf, 2006: p. 5). The suppliers are made up by automotive component manufacturers (ACMs) which are seen as the first tier suppliers, and original equipment suppliers (OESs) which provide parts and accessory sales through the OEMs (Naude 2013, p. 408). The ACMs and OESs amount to approximately 500 role players in the South African

automotive supply chain (AIEC, 2014: p. 22). The industry also incorporates aftermarket components which are defined as the role players as a vehicle subsequently leaves the factory floor such as dealers, fuel stations, and panel beaters (Tolmay 2012: p. xvi). There are approximately 4 600 garages and fuel stations (with the majority having service workshops as well) plus a further 1 898 specialist repairers; 1 374 new car dealerships holding specific franchises; an estimated 1 696 used vehicle outlets; 1 508 specialist tyre dealers and retreaders; 483 engine reconditioners; 167 vehicle body builders; 2 907 parts dealers and around 220 farm vehicle and equipment suppliers (AIEC, 2015: p. 7).

The automotive sector and supply chains are facing many challenges in an unsure, dynamic, and fiercely competitive market. The challenges include shorter life cycles, cost reduction pressures, rapidly changing customer product buying patterns and more knowledgeable and sophisticated customers (Ambe & Badenhorst-Weiss, 2011: p. 352). The South African automotive supply chain, and its role players, is no exception to these challenges and need a desperate approach to secure sustainability of the supply chains (Bronkhorst, et al., 2013: p. 1295). Although the South African automotive industry is in a healthy state and receives extensive government support (AIEC, 2015: p. 7), the industry should also reflect on its volatile sustainable position and seek ways to optimize supply chains (Bronkhorst, et al., 2013: p. 1295).

For supply chains to be sustainable and optimized they need to be based on long term collaborative, trusting relationships between suppliers and customers in the supply chain (Li, et al., 2012: p. 5445; Tripathi, 2014: p. 132; Wisner, et al., 2016: p. 115; Chopra and Meindl, 2013: p. 472). This study investigates the relationship between first and second tier suppliers in South African automotive supply chains. It was conducted from the first tier suppliers' (ACM's) perspective, who is therefore the 'customer' in the relationship. This article dissects relationships with suppliers and particularly the correlation between three elements of a collaborative relationship – relationship value, trust and supplier retention.

2.2 Relationship Value and Retention

Value is conceived as a subjective and multifaceted concept - a tradeoff between benefits and sacrifices, and is always seen in relation to the competition (Ulaga and Eggert, 2004: p. 314). Eggert, Ulaga and Schultz (2006: p. 21) states that relationship value over the life cycle of the relationships is contributed by core offering, sourcing process and customer operations value propositions. Value in supply chain relationships can increase benefits between partners instead of increasing costs (Sun, Pan, Wu and Kuo 2014: p. 79). The whole purpose of relationships is to work together in ways that add value to the parties involved (Sun, et al., 2014: p. 80; Aflaki and Popescu, 2013: p. 417). The relationships in the supply chain originate from a series of tasks and functions to create value (Yaqub and Hussain, 2013: p. 433; Sun, et al., 2014: p. 80) and eventually result in retention (Parry, Rowley, Jones, and Kupiec-Teahan, 2012: p. 890; Sun, et al., 2014: p. 79).

Long term inter-relational and collaboration exchanges between business partners lead towards increased performance and therefore it is worthwhile to invest in these relationships (Yaqub and Hussain, 2013: p. 433).

Increased global competition is forcing companies to add more value and one of the ways to achieve this is to form long term collaborative relationships between customers and suppliers (Saban and Luchs 2011: p. 43). According to Wisner, Tan and Leong (2016: p. 528) collaboration means 'working together through information sharing with suppliers and customers on various activities.' This long term supply chain relationship results in value for both parties such as mutual financial benefits, higher problem solving abilities, higher frequency of effective communication (Naude, Ambe, and Kling 2013: p. 4). This long term interdependence and relationship ultimately leads to *superior value* (Yaqub and Hussain, 2013: p. 433).

Not all relationships between suppliers and buyers in supply chains will be collaborative or partnership type, depending on the situation and the nature of the product or service. For standard, routine and bottleneck products and services the buyer-supplier relationship will be adversarial or arm's length, as the buyers use multiple sourcing. When buyers and suppliers accept that they have mutual goals they are taking a step closer to collaboration. 'The emergence of collaborative relationships among firms in the supply chain is the recognition of mutual dependence' (Bowersox,

Closs, Cooper and Bowersox, 2012: p. 352). When more critical, strategic products and services are required suppliers and buying organizations often need to work together from product development and process design through to routine deliveries. The relationship will determine the degree of interaction, information sharing and collaboration between buyers and suppliers. With collaborative relationships, particularly when it has developed to a full partnership (Swink, Melnyk, Cooper and Hartley 2011: p. 294-295), also called a strategic alliance (Bowersox, *et al.*, 2012: p. 353; Wisner, *et al.*, 2016: p. 119), the buyers and suppliers (partners) expect to create better solutions than they could create alone. Partners plan together and have full access to information, designs, schedules, cost data. ‘A distinguishing feature of such relationships is the expectation that the *collaboration will be continuous*’ (Bowersox, *et al.*, 2012: p. 353). Often for this kind of relationship long term contracts formalize the relationship. ‘Partnerships foster long-term loyalty and mutual respect, ultimately leading to many of the advantages of vertical integration’ (Swink, *et al.*, 2011: p. 295). It is obvious that in this type of relationship both the supplier and buyer will do everything in their power to *continue or retain* the partnership through customer relationship management and supplier relationship management. This study was done from the customer side and therefore supplier relationship management is applicable.

There is ample evidence of collaborative, partnership-type buyer-supplier relationships in automotive supply chains. Swink, Melnyk, Cooper and Hartley (2011: p. 295-295) mention examples at Ford Motor Company in Brazil, as well as at Toyota and Honda. Wisner, *et al.*, (2016: p. 78) refers to the strategic partnership between Jaguar Land Rover and a key supplier Gobel & Partner. The South African automotive supply chain is also characterized by long term collaborative relationships between customers and suppliers (Ambe, 2014: p. 277).

2.3 Trust in Collaborative Relationships in Supply Chains

As part of the relational exchange between parties, trust has always been viewed as critical expectation to enhance the value of relationships (Yaqub and Hussain, 2013: p. 436).

In collaborative buyer-supplier relationship the partners must trust each other – ‘no real collaboration can exist in supply chain relationships without meaningful trust’ (Bowersox, *et al.*, 2012: p. 353). Trust can enhance the value of collaborative relationships (Saban, and Luchs 2011: p. 42).

Bowersox, *et al.*, (2012: p. 353-354) distinguish between reliability-based trust and character-based trust. Reliability-based trust refers to the willingness and ability of a supply chain partner to perform as expected and promised. Character-based trust is based in an organization’s culture and philosophy. It stems from the perceptions that supply chain parties (buyers and suppliers) have about their partners’ intentions of seeking the best interest for everybody and considering the impact of their actions on other partners in the supply chain. ‘Trusting partners believe that each will protect the other’s interest’ (Bowersox, *et al.*, 2012: p. 354). Reliability-based trust is necessary for the formation of collaborative relationships in the supply chain, but not the only condition. To maintain the relationship over the long term (retaining the relationship) it should be a character-based relationship.

A study specifically undertaken on the automotive industry by Sako (2006: p. 267-294) and later confirmed by Saban and Luchs (2011: p. 46), found that trust in the supply chain result in a higher degree of learning and continuous improvements coupled with the advantage of cost reduction. Gounaris (2005: p. 127) stated that “*The more the customer trusts the supplier, the higher the perceived value of the relationship*”. In line with Gounaris (2005) various authors agree on the value of trust in supply chain collaborative relationships. This includes: competitive advantage, satisfaction, commitment, business retention, innovation, better supplier performance, sustainability, information and knowledge sharing, improved supply chain relationships, customer satisfaction and commitment (Ambe, 2014: p. 278; Li, et al., 2012; Saban and Luchs, 2011: 47). Drake and Schlachter (2008: p. 851–864) and later on Thomas and Skinner (2010: p. 46) stated that trust mitigates risk. Trust can also reduce general production and operation cost (Tolmay, 2012), procurement and transaction cost (Saban and Luchs 2011). Consequently, trust plays a critical role in the supply chain relationships.

It was further found that higher levels of trust in the automotive industry results in a trust-centric approach with suppliers rather than a command and control approach (Saban and Luchs 2011: p. 52). A command and control approach, usually applicable to a transactional collaboration, constantly monitors the performance of the supplier at a

high cost with low value exchanges between the two parties. The supplier can easily dissolve the partnership and find a new customer who will provide assurance of a market. In contrast, the trust-centric approach between customer and supplier share a high degree of strategic collaboration through interaction, knowledge and innovation sharing and the parties are willing to invest in each other by means of time and energy to secure successful long term exchange (Saban and Luchs 2011: p. 52).

2.4 Relationship Value, Trust and Retention

Studies undertaken in supply chain management found that the actual *relationship value* (Sun, et al., 2014: p. 79) along with *trust* (Saban and Luchs, 2011: p. 47; Fang, Qureshi, Sun, McCole, Ramsey and Lim, 2014: p. 408) revealed correlation with business-to-business *retention*. From literature, both relationship value and trust are viewed as powerful predictors of long term supply chain relationships which will lead towards retention (Walter, Mueller, and Helfert, 2000: p. 1). Two crucial predictors of supplier retention in the supply chain environment are relationship value and trust (Lambert and Enz, 2012: p. 1605). None of these studies was done in the automotive industry.

3. RATIONALE FOR THE STUDY

Unfortunately, an empirical study by Fawcett, Magnan and Williams (2004) and later on Drake and Schlachter (2008: p. 852) stated that many supply chain relationships still lack significant trust between parties involved. One of the largest hurdles hindering collaboration is a lack of trust over complete information sharing between supply chain partners (Jacob, Chase, and Aquilano 2009: p. 499).

With the current unstable economic environment, it is crucial for all automotive component stakeholders to capitalize on best practices in order to survive. One of the best practices is relationships in supply chains. Therefore, all avenues should be pursued to improve and retain trusting relationships in supply chains. The *research question* driving this explorative research study is: Are the relationships between first and second tier suppliers in South African automotive supply chains *trusting, valued and directed towards retention* and what is the *correlation* between trust, value and retention in the relationship? The *aim of the study* is therefore to determine whether there is a hierarchical correlation between trust, relationship value and retention in the relationships between first and second tier suppliers in the automotive supply chains in South Africa.

4. METHODOLOGY

This quantitative research study utilized a questionnaire with structured close ended questions based on the research of Eggert, Ulaga and Schultz (2006), as well as Morgan and Hunt (1994). However, in preparation for the research, a questionnaire validation process was followed where questions were asked to certain industry experts in order to ensure the validity of the questions in the South African automotive industry. The research questions in the questionnaire applicable to this paper related to trust and relationship value as well as supplier retention.

The questionnaire was administered through email to senior managers in automotive component manufacturers (ACMs, also Tier 1 suppliers to OEMs) that are members of NAACAM (National Association Automobile Component and Allied Manufacturers of South Africa). Non-respondents were followed up via telephone and if they still did not respond, telephonic interviews were conducted with them.

NAACAM, established in 1980, comprises of 140 members and embodies the interest of the South African automotive component manufacturers. NAACAM comprises mainly of Tier 1 suppliers and almost 70% of South Africa's main Tier 1 manufacturers are registered members (AIEC, 2015: 7).

Ethical clearance for this study was obtained at the research institution's Ethical Committee and accordingly respondents had the option to reveal their identity.

In this study a bipolar seven point semantic differential scale were utilized where respondents had to choose their perception on a statement from "strongly disagree" to "strongly agree". A total number of 114 responses were received which indicate a response rate of 81.4%.

4.1 Profile of Respondents

A representative response spread was achieved according to the demographical information obtained (n=106 completed responses). Of the 106 respondents, a total of 44.3% (n=47) respondents specified that they comprise of an international shareholding structure. A local or South African shareholding component represented 29.2% (n=31) and the mixture (South African and international shareholding) constitutes 26.4% (n=28).

Of the 114 respondents, 101 disclosed their annual earnings. The majority of companies earn more than R200 million 53.5% (n=54). The companies with an turnover of between R50 million and R200 million represented 24,7% (n=25) of the respondents and the companies with a turnover of R5 million to R50 million were 16,8% (n=17). Finally, smaller companies with a turnover of less than R50 million represented 5% (n=5) of the total respondents. Corresponding to literature, the above findings confirm the fact that most Tier 1 automotive component suppliers are large international companies with substantial turnover.

According to the respondents (n = 107), in correspondence with the turnover of the company, the Tier 1 suppliers also employ a large workforce. As per Table 1, a total of 51,4% (n=55) respondents indicated that they employed more than 200 employees; 37,4% (n=40), 51 to 200 employees; 9,3% (n=10), between 21 to 50 employees; and 1,9% (n=2) less than 20 employees.

The South African automotive industry is represented in four provinces namely Gauteng, the Eastern Cape, KZN, and the Western Cape, in descending order of size. From the 105 respondents, a total of 46.7% (n=49) are located in the largest automotive cluster in Gauteng. A total of 32.4% (n=34) respondents are located in the second largest automotive cluster in the Eastern Cape. The KwaZulu Natal Automotive cluster represents 9,5% (n=10), whilst the smallest cluster in the Western Cape cluster represented 11,4% (n=12) of the respondents.

The respondents were also requested to indicate their position in the organization and of the 98 respondents 52.0% (n=51) of the held CEO or senior management positions, while 37.8% (n=37) of them indicated that they are administrative or procurement managers with 10.2% (n=10) respondents indicated that they are technical managers.

Table 1. Profile of respondents

	Profile	N	%
Shareholding	Local shareholding	31	29.2%
	International shareholding	47	44.3%
	Mixture – local and international shareholding	28	26.4%
	Total	106	
Company turnover	R0 – R5 million	5	5.0%
	>R5 million – R50 million	17	16.8%
	>R50 million – R200 million	25	24.7%
	>R200 million	54	53.5%
	Total	101	
Employees	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	
Province	Gauteng	49	46.7%
	KZN	10	9.5%
	Eastern Cape	34	32.4%
	Western Cape	12	11.4%
	Total	105	
Position	CEO/Senior manager	51	52.0%
	Technical manager	10	10.2%
	Administrative Procurement manager	37	37.8%
	Total	98	

The research thus achieved a good representation of the Tier 1 automotive component manufacturers in South African.

After the responses were received from the respondents above, the data was analyzed and interpreted.

Principal component analyses were conducted, using principal component extraction and varimax rotation, to determine the unidimensionality of each of the constructs trust and relationship value. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.750 and 0.714 for trust and relationship value respectively and the Bartlett's Test of Sphericity were significant ($p < 0.001$) for both constructs, indicating that factor analysis on both these constructs were appropriate.

The analyses confirmed unidimensionality for both trust and relationship value, as the analyses identified only one factor in each case, based on the Kaiser eigenvalue criterion (eigenvalue greater than 1). The factor loadings are shown below for trust and relationship value and the single factors explain 85.8% and 73.3% of the variance respectively.

Table 2. Factor Analysis – Trust and relationship value

Construct	Items	Factor loadings	Cronbach Alpha
Trust	In our relationship, my firm feels that Supplier A can be counted on to do what is right	0.906	0.917
	In our relationship with Supplier A, our firm feels that Supplier A can be trusted	0.938	
	In our relationship, Supplier A demonstrates a high level of integrity	0.935	
Relationship Value	Our organisation gains value from the relationship with Supplier A	0.764	0.812
	When comparing all costs and benefits involved in our relationship with Supplier A, my firm feels that Supplier A creates value for us	0.722	
	The relationship my firm has with supplier A is valuable to us	0.712	

Using the Cronbach alpha coefficient, the internal consistency (reliability) for trust and relationship value was found to be 0.917 and 0.812 respectively. As both these values are above the acknowledged threshold of 0.7, they were deemed satisfactory.

Factor based scores for trust and relationship value were subsequently calculated as the mean score of the variables included in each factor. Supplier retention was measured through a single item, namely; “*My firm expects to expand the business they currently do with Supplier A*”.

5. FINDINGS

5.1 Descriptive Statistics

Trust and relationship value were included in the questionnaire in order to determine their importance within the automotive supply chain as well as their influence on supplier retention.

Table 3. Statistics – Trust, Relationship Value and Supplier Retention

Construct	Trust	Relationship Value	Supplier retention
N	114	114	113
Mean	5.8655	5.7412	6.62
Median	6.0000	5.6667	6.00
Std. Deviation	.92885	.86078	1.227
Skewness	-.860	-.137	-.857
Std. Error of Skewness	.226	.226	.227
Kurtosis	1.127	-.527	.802
Std. Error of Kurtosis	.449	.449	.451
Minimum	2.33	3.67	1
Maximum	7.00	7.00	7

The mean scores of the constructs (trust and relationship value) and the single item (supplier retention) were higher than 5: Trust (5.86), relationship value (5.74) and supplier retention (6.62). The skewness values of trust (-.860), relationship value (-.137) and supplier retention (-.857) and kurtosis values for trust (1.127), relationship value (-.527) and supplier retention (.802) do not show deviations from normality.

In order to determine the extent to which trust and relationship value can be used to predict supplier retention, hierarchical regression was conducted. Hierarchical regression is used to firstly evaluate the directional relationship between the independent variable trust with the dependent variable (supplier retention) where after relationship value is added to determine if it explains additional variance in the dependent variable.

The results are tabled below in Table 4.

Table 4. Regression – Trust and Relationship Value

Model Dependent Variable	Model 1			Model 2		
	Supplier retention			Supplier retention		
Statistics	R ²	F value (Sig)	Standardized Beta	R ²	F value (Sig)	Standardized Beta
Predictor - Trust	.326	52.818(.000**)	.571(.000**)	.358	5.233(.000**)	.352(.000**)
Predictor – Relationship Value						.281(.000**)

Note: *p < 0.05, **p < 0.01

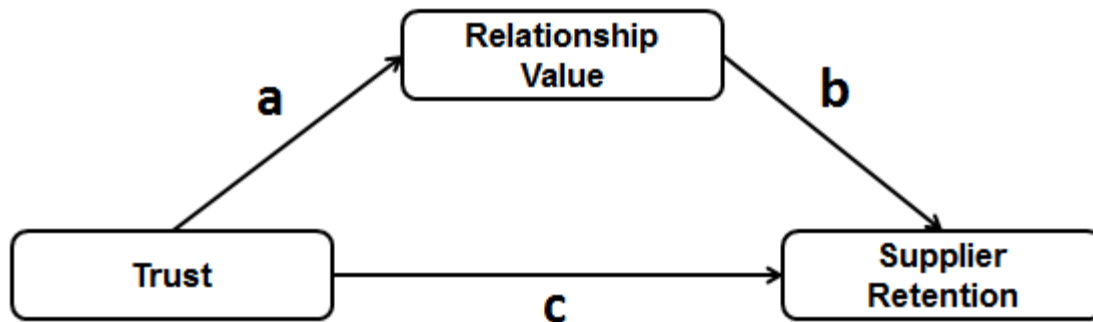
No multicollinearity exist between relationship value and trust (tolerance = 0.393).

The regression model reveals that both trust and relationship values are statistical significant predictors of supplier retention. Trust is seen as the slightly more important predictor of Supplier retention (standardized β = 0.352).

Based on model 2 where relationship value was added, the R² change is .031 indicating the additional contribution to explaining the variance in the dependent variable (supplier retention). The F change is statistically significant (0.024), therefore, the predictor variable, relationship value, did contribute additionally to the overall relationship with the dependent variable, supplier retention.

In order to test if relationship value is a mediator of the relationship between trust and supplier retention, the four steps according to Baron and Kenny (1986), Judd and Kenny (1981), and James and Brett (1984) were followed (Figure 1).

Figure 1. The test for partial mediation with trust, relationship value and supplier retention



In the first step (first model in Table 5 and path c in Figure 1), trust was identified as the significant predictor of supplier retention. This step establishes that there is an effect that may be mediated. In the second step (model 2 in Table 5 and path a in Figure 1), relationship value was utilised as the criterion variable in the regression and trust as the predictor in order to test the path between the two constructs. With the third step (model 3 in Table 5), supplier retention was used as the criterion variable in a regression equation with trust and relationship value as predictors. Finally, as trust is still a statistical significant predictor of supplier retention, it implies partial mediation.

Table 5. Test for partial mediation

Model 1			
Dependent Variable	Supplier Retention		
Statistics	R ²	F value (Sig)	Standardized Beta
Predictor – Trust	.326	52.818(.000 ^{**})	.571(.000 ^{**})
Model 2			
Dependent Variable	Relationship Value		
Statistics	R ²	F value (Sig)	Standardized Beta
Predictor - Trust	.563	144.475(.000 ^{**})	.751(.000 ^{**})
Model 3			
Dependent Variable	Supplier Retention		
Statistics	R ²	F value (Sig)	Standardized Beta
Predictor - Trust	.358	30.051(.000 ^{**})	.352(.000 ^{**})
Predictor – Relationship Value			.281(.000 ^{**})

Note: *p < 0.05, **p < 0.01

Based on the above findings the conclusions and implications will be formulated in the next section followed by recommendations to the South African automotive supply chain.

6. CONCLUSIONS AND RECOMMENDATIONS

In the rationale of the study it was indicated that it is crucial for all automotive component stakeholders to capitalize on best practices in order to survive. One of the best practices crucial to assure a competitive advantage of South African automotive supply chains in an intensely fierce global market is strong supply chain relationships.

This study revealed that there is a high regard for trust in the South African automotive supply chains and there is a strong correlation between trust and relationship value. It also revealed that both trust and relationship value are substantial predictors of supplier retention, but trust is more important for supplier retention.

It seems that trust between first and second tier suppliers in South African automotive supply chains is crucial as it lead to better value in the relationship and assure the retention of the relationship between the different tiers of suppliers.

In literature it was indicated that many supply chain relationships still lack significant trust between parties involved. One of the largest hurdles hindering collaboration is a lack of trust over complete information sharing between supply chain partners.

Automotive supply chains in South Africa therefore need to do all in its power to assure good customer and particularly supplier relationships, based on trust. Literature indicated that higher levels of trust in the automotive industry results in a trust-centric approach with suppliers rather than a command and control approach. This should be the angle that dictates supplier and customer relationship management in the supply chains.

AUTHOR BIOGRAPHIES

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