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Factors affecting the sustainability of the South African automotive component industry

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Abstract

The automotive industry in South Africa has undergone a major transformation process over the years and has evolved into a much-sheltered and government-supported industry. Therefore the purpose of the study on which this article is based was to investigate the factors that determine the sustainability of the automotive component industry in South Africa.

This was a cross-sectional study conducted among 114 top managers in the component industry using a selfadministered anonymous questionnaire. The questionnaire was distributed using the online program, QuestionPro. The results showed that more than a third of the companies were internationally owned. Most respondents believed that their technologies as well as their equipment were equal to that of global economies. Foreign investment and incentives were poor in the automotive sector.

It was found that pricing was lower but labour costs were higher in South Africa compared to developing countries. In order to compete with other developing countries, the South African firms need to formulate strategic partnerships through joint ventures, licencing and technology agreements and to reduce labour cost in cooperation with global market players in order to make use of the influence that they have in the supply chain.

Key phrases

competitiveness; global economy; labour cost; price; technology; transformation process

1. INTRODUCTION

The South African automotive industry is a major cog in the South African economy and it plays a vital role in the achievements of this developing economy. The automotive industry accounts for about 10% of the exports of the country and contributes about 7.5% to the

gross domestic product (GDP). The industry employs around 36 000 individuals. It is also one of the fastest growing industries in the country (DTI 2013:Internet).

The automotive industry is the driving force behind the entire automotive value chain. There are seven predominant light motor vehicle manufacturers in South Africa, namely Mercedes-Benz, BMW, Volkswagen, Toyota, Nissan, General Motors and Ford (NAAMSA 2011:Internet). Looking at the vehicle production it becomes clear that the nature of the industry has changed drastically over the years. In 1999 the automotive industry assembled 317 000 motor vehicles of which 8.5% were exported (Black 2001:780). In 2007 vehicle assembly reached 535 000 units and there is an expectation that it will rise to 1.2 million by 2020 (DTI 2013:Internet).

The challenges facing the automotive component manufacturing industry in South Africa are manifested in the competitiveness of the industry on global markets and ultimately in the sustainability of the local firm. These challenges arise out of global integration and rapid liberalisation which shifted the world economy's focus to emerging nations like South Africa. Whilst there have been positive spinoffs for the industry, the global downturn in economic growth has weighed heavily on the South African economy.

The automotive component industry in South Africa has undergone a major transformation over the years and with the latest trends of globalisation and liberalisation, it is uncertain as to what the future holds for the industry. The extent of the uncertainty is an area that has not been sufficiently explored; therefore the study on which this article is based sought to investigate the factors that determine the sustainability of the automotive component industry in South Africa.

2. LITERATURE REVIEW

Developing countries regard the automotive industry as a strategic sector because of its influence on the economy. For this reason the automotive industry is exposed to large-scale protectionist measures to promote local production (Fuangkajonsak 2006:8). The sustainability of the industry is critical to the success of the South African economy and has therefore been influenced by industrial policy programmes that support the industry.

Flatters (2005:Internet) asserts that earlier policies have been extremely inefficient, imposing high costs and resulting in labour adjustments. Nevertheless, the various levels of policies have seen the industry traverse a lengthy journey of transformation in suppliers, customers,

systems and business relationships. Maxton and Wormald (2004:257) suggest that businesses will have to be economically redefined and reconstituted to achieve optimal balance between economies of scale and variety at each stage of the supply chain. This stage of realisation signalled the commencement of globalisation which held deep-seated consequences for the South African automotive component industry.

2.1 Industrial policy

By the end of 1970 and with the imposition of economic sanctions, South Africa was forced into import-substitution industrialisation (ISI). This involved the implementation of policies that promoted the replacement of imports with domestic production to reduce the country's foreign dependency, thus encouraging local production. Import substituting industrialisation policies helped to grow the domestic industry and created strong local ownership by creating high tariff barriers and artificial market support which were generally considered the best way of supporting the market (Kaggwa, Morris & Steyn 2007:51).

The inefficiencies of the ISI policies were later addressed with the implementation of the Motor Industry Development Program (MIDP). The automotive industry returned to foreign ownership while the automotive market was liberalised (Barnes & Morris 2008:31). The MIDP was designed to help the industry adjust and increase its competitiveness in the new post-apartheid trade policy environment.

The programme comprised four principal elements which included the reduction of import duties on vehicles and components, an export-import complementation scheme, access to duty drawback programmes for exporters and a duty-free allowance on imported components. The MIDP created various opportunities; however, Flatters (2005:Internet) believes that that some of the programme's alleged benefits, especially in terms of consumer interests and employment, have been overstated.

The implementation of the MIDP can be associated with the change in the environment, especially with regard to the original equipment manufacturer (OEM) ownership structure, which has a bearing on the component sector. According to Barnes (2010:2), OEMs that were locally owned were taken over by multinational companies and the industry was confronted with the international environment which was characterised by global changes in the value chain. Wad (2010:7) maintains that components and parts production was subject to resourcing to developing countries. The challenges of the industry would not have been as severe had the industry been competitive.

2.2 Liberalisation

According to the Automobile Sector Study (2007:Internet) the economic impact of liberalisation is expected to benefit the industry by promoting amplified productivity and subsequently enticing foreign investment flows to the automobile sector. Trade liberalisation increases the competitiveness and export potential of the sector and increases the return on investments.

Moreover, it improves openness and promotes international competitiveness of vehicle manufacturing and component production. The benefits of this exposure to competition are increased efficiency, improved productivity gains and opportunities for new investment and the added prospects of attracting new investment into the sector (Automobile Sector Study 2007:Internet).

Domestic producers, however, face short-term pressure, as they adjust product design and productivity to meet the challenges of competing with imported parts for use in the domestic market. Black and Banisi (2006:131) maintains that "in any process of liberalisation, import expansion would be anticipated but successful adjustment may require new investment and growing efficiencies to at least partly offset the impact of declining protection".

If liberalisation surpasses the rate at which domestic firms can adjust, there could be an adverse impact on employment and production which ultimately results in inefficient firms downsizing their operations or even closing down (Automobile Sector Study 2007:Internet).

Black (2011:173) states that liberalisation has had a "shattering effect" on the industrial structure because the industry had previously been protected. The impact is greater because of the role played by international markets. Thus, the low volume, flexible producer servicing the domestic market is transformed into a high volume supplier.

Operating as locally owned entities reliant on licensed technology became increasingly difficult for firms that were exposed to international competition. To continue as first-tier suppliers, foreign relations, including foreign ownership in some cases, became necessary in order to source technology and advance access to global networks. Growing foreign ownership in turn has a range of implications for domestic firms and for the industry as a whole (Black 2011:174).

2.3 Globalisation

Chang, Bayhaqi & Yuhua (2012) believe that globalisation has affected the conduct of business through the alteration of global supply chains and global value chains brought about by precipitous technical progress, modern transportation and communication infrastructures, falling trade and investment barriers, and the materialisation of developing, low-wage economies. Balakrishnan (2004:Internet) maintains that globalisation has created opportunities for developing countries arising from greater access to developed markets and technology which provides aptitudes of superior productivity and higher standards of living.

However, he also notes that the globalisation can be constrained by the barriers to trade. This is the basis of argument that aims to establish whether the South African component industry is struggling to deal with globalisation as a result of previous barriers to trade created by government policies and exacerbated by the rapid liberalisation of the industry.

2.4 The influence of liberalisation and globalisation on the South African automotive component industry

Liberalisation and globalisation are the catalyst that have resulted in the transformation of the South African component industry and created vastly different outcomes. There is little doubt that industrial policies have played a major role in developing and guiding the automotive industry in South Africa. Black and Bhanisi (2006:132) believe that the composition of the industry is more robust than it was and that an increase in investments has been made in equitably high production volumes, and economies of scale have been achieved. Fuangkajonsak (2006: 9) supports the view that industrial policies have created successful competitive industries in many countries and have been responsible for keeping not-so competitive industries alive.

The industrial policies adopted by the South African government were implemented to grow the local industry through the imposition of high tariffs and the promotion of local content (Black 2009:485). These policies were implemented in phases. Phase V1 was probably the most transformative phase which displayed a modification in the industry behaviour from one of import substitution to export promotion. The target objective of this phase was to expand the size of the market and to increase rationalisation in the built up vehicle and component markets.

Despite the component sector initially showing rapid expansion, the objectives proved more difficult to achieve and resulted in low production scales and high costs which were

perceived to be the problem in both the vehicle and component sectors (Black 2009:487). Furthermore, while the objectives of Phase V1 were to rationalise production, the impact of heavy fortification resulted in proliferation whereby manufacturers built a variety of models on the same assembly line (Black 2001:780).

Ballard (2001:Internet) asserts that international trade is rules-based and thus governments have to allow foreign producers access to local markets in exchange for local producers to gain access to international markets. The lowering of trade barriers means that governmental protection previously offered to local firms is reduced, revealing the intense competition from foreign firms.

Thus the continuing lessening of benefits and the liberalisation of the protected industry subjects the South African industry to global markets. Integration of markets with global markets implies that companies now face the challenge of competing with global suppliers for business. This new challenge was exacerbated difficult as the result of the rapid promotion of import protection afforded by the MIDP.

Flatters (2005:Internet) believes that although the MIDP provided incentives to rationalise production into a smaller range of products and achieved economies of scale through exporting certain products, it also created an opportunity to freely import other products and components. Black (2001:781) believes that trade liberalisation tends to lower the prices of free products in comparison to domestic market goods and similar commodities available internationally.

2.5 Liberalisation and globalisation of global automotive industries

Rapid liberalisation has varying outcomes for the different emerging markets and may even result in economies attracting inward investment due to high productivity, lower labour costs and close proximity to markets (Black & Banisi 2006:132). On the international front, liberalisation of markets has yielded vastly contrasting results. Some markets have shown positive growth, while others have had an adverse impact on the sustainability of the automotive industry. Fujita (1997:Internet) maintains that the move towards liberalisation can be understood as a test of success or failure of past industrial policies in developing a competitive industry.

Global automotive firms have taken advantage of the favourable growth in developing industries by seeking out the cheaper locations. This has implications for how South Africa is regarded by major global markets and how they elect to position South Africa within worldwide networks (Black & Banisi 2006:132). South Africa does not have the necessary attributes of big emerging markets and home-grown firms or government strategies to be able to drive a successful independent strategy similar to those of big emerging markets like China and India (Black & Banisi 2006:132).

Whilst the deficiencies of the South African automotive industry and the inability of the industry to develop a strategy has been highlighted, the increased importance of South Africa as gateway into Africa is often overlooked as a strategic advantage because of its positioning on the doorstep of a major untapped market. Furthermore, the incorporation of South Africa into the BRICS community affords South Africa the advantage of being party to a significant trading bloc with market benefits yet to be explored.

3. RESEARCH METHODOLOGY

The study reported on in this article was a descriptive cross-sectional study focused on the automotive component industry in South Africa. The population comprised all companies active in the supply of automotive components to the automotive industry. These companies play a supporting role to the auto manufacturing companies by providing materials, components and service to the assembly process.

3.1 Population and sample of the study

There are 469 automotive suppliers with a local presence in South Africa and constitutes the population of the study. This number includes component suppliers down to the fourth-tier level as well as service providers to the automotive industry. The membership listing of NAACAM, as at 31 December 2012, was used as a sample frame. Although the members of NAACAM do not constitute the entire population of component manufacturers, they do constitute almost 70% of the South African tier 1 manufacturers. Outside of NAACAM are some foreign and smaller local companies who are either not members of any association or are affiliated to tyres, catalytic converters, plastics, stainless steel, aluminium and similar bodies (DTI 2013:Internet).

3.2 Instrument and data collection

The primary data required to conduct this study were collected via a questionnaire. The questionnaire was developed after an in-depth analysis of secondary data gathered and discussed in the literature review. The questionnaire was distributed and administered via the QuestionPro online survey program. The software is a comprehensive tool that can

administer the development of the questionnaire, manage the address database and control the responses and results. Participation in the study was voluntary and anonymity and confidentiality was maintained at all times. Self-administered questionnaires were sent out to 114 companies. The data collection was conducted from mid-September 2013 to mid-October 2013.

3.3 Ethical clearance

The University of KwaZulu-Natal ethics committee approved the study. Authors also obtained permission to conduct the study from NAACAM before the study commenced. Participation in the study was voluntary and participants could withdraw from the study at any time without any consequences. Confidentiality was maintained at all times as there were no names in the questionnaire.

3.4 Data analysis

The data were captured directly onto the web based database and there was no need for manual capture, thus the potential for capturing errors was eliminated. However, the data were checked and cleaned in order to ensure that all information was legitimate. The data were summarised using descriptive statistics such as frequency tables and figures.

4. **RESULTS AND DISCUSSION**

Of the 114 companies identified, 54 companies participated in the research, yielding a response rate of 47.3%. Many attempts were made to improve the response rate by sending reminders and through direct telephonic correspondences. Results and discussions on respondents' profile and different factors that might contribute to the sustainability of automotive component industry are provided below.

4.1 Profile of respondents

The survey was sent to managing directors, CEOs and managers of firms operating in the South African automotive component industry. Subsequently the responses were received from senior ranking officials within the automotive supplier firms. Senior representation accounted for 89% of the total responses received and included managing directors, CEOs and senior management officials. Based on the level of seniority of respondents it can be inferred that data and comments made are significant in determining the status of the South African automotive component industry.

4.2 The impact of ownership changes on the future of the automotive component industry

4.2.1 Ownership and tier structure

The ownership structure of the South African automotive component firms demonstrates that a distinct majority of companies form relationships with international entities, either through direct ownership or via joint ventures and supplier agreements. Of the companies surveyed 39.44% were internationally owned, implying that international companies had either entered the South African market or had taken over ownership from current suppliers (Table 1).

The data show a similar trend to that shown in the OEM sector as identified by Black (2001:782) who found that foreign ownership has been growing and local firms who used to produce under licence have been purchased by foreign companies or entered into joint ventures. Black (2011:174) suggests that tier-1 suppliers had to embrace foreign linkages in order to continue as tier-1 suppliers. Foreign links, including foreign ownership, were necessary in order to source technology and gain access to global networks and their technology (Black 2011:174).

The high rate of companies using international patents and licences combined with joint ventures with international companies further corroborates the view that component manufacturers have formed relationships with multinational corporations (MNCs) and it is assumed to have done so in order to meet global standards of quality, design and development as suggested by Black (2001:782).

In this current study the findings regarding the percentage of locally owned South African suppliers differs from the findings of a previous study undertaken by Black (2001:781) with regard to the extent of local ownership.

This study reveals a higher level of locally owned suppliers. The general trend in the industry is for companies to align their business practices to incorporate foreign linkages. Companies increase their association with foreign companies to take advantage of modern technology and to capitalise on business awarded to foreign companies through global sourcing. This is done via licence agreements.

The dependency on imported technology has resulted in deficiencies in the value chain as OEMs import components used in production and then export the locally manufactured vehicles causing the accumulation of cost which affects the competitiveness of the local production (Naude & O'Neill 2011:112).

TABLE 1: The impact of ownership changes on the future of the automotive component industry (n = 54)

IMPACT OF OWNERSHIP CHANGES	PERCENT
Ownership structure	
Locally owned South African supplier	24
Locally owned South African suppler using international patents / licenses.	25
Joint venture (JV) of locally owned South African and international supplier	8
Internationally owned supplier	39
Other	4
Tier structure	
OEM	15
Tier-1	44
Tier-2	18
Tier-3	1
Aftermarket	7
Non-automotive	1
Other	14
Design responsibility (multiple answers)	
Product manufactured by unit according to design specifications by external buyers	86
Products developed and designed by unit according to performance requirements buyers	28
Products developed and designed by unit and sold under your own brand	17
Other	33
Technology	
Superior	36
Neutral	53
Inferior	11
Equipment	
Ahead	21
Average	46
Behind	30
Unknown	3
Activities	
Component manufacturer	50
Marketing and distribution for own production only	12
Post-production for own product only	6
Material supplier	7
Component supplier	12
Module assembly	13

Source: Derived from primary data collected for this study

Furthermore, component firms that are locally owned find it increasingly difficult to embark on any sort of export strategy because of the restrictions imposed on exporting by their licence partners in European, Japanese and American firms. The only cost-effective way of obtaining technology for these firms is via licence agreements (Black 2011:174).

The tier structure of the automotive component industry is represented in Table 1 which demonstrates that 44% of the companies represented are tier-1 suppliers. Tier-2 suppliers make up the next highest market and the balance of the companies are integrated into the industry network. The small number of component firms supports the view by Black (2011:174) that "individual vehicle assembly plants no longer source their components from over 2000 suppliers as they did in the 1980s.

They now only have 100 to 200 tier-1 suppliers. The implications of this trend is that companies which previously supported the OEM may now no longer be in business or have changed their focus to other industries. The reduction in the number of tier-1 suppliers suggests the transformation of the value chain and it points to a decline in the number of companies operating in this level. This may point to the demise of tier-1 companies or could suggest the relegation of suppliers to tier-2 levels.

Companies in the automotive component industry are heavily dependent on OEMs for their design specification. This is in line with the present study as demonstrated that on average 86% of companies turnover is derived from products manufactured according to design specifications provided by OEMs. While production remains local, design and contract allocation is increasingly global, leading to large-scale consolidation and restructuring of the components industry in developing countries (Humphrey 2003:121).

This finding also points to the prevalence of the concept of follow sourcing as the result of OEMs rebuilding supply structures in the developing markets. This is suggested in the findings by Black (2009:485) who found that multinational carmakers have a major influence on where component production takes place and they encourage the relocation of suppliers or the establishment of production facilities in South Africa or in any other location.

Most companies do not develop their own designs and are therefore heavily dependent on product designs produced by lead source firms. The trend in the industry is for companies to take on design responsibility, and without the expertise and necessary development to do so, it could prove challenging for local companies to assert their position in the market on their own strength.

4.2.2 Technology and equipment

Most respondents believed that their technology is equal to that of global economies (Table 1). Results indicated that 54% of the industry possesses technology that is similar to that of developing and developed countries.

An interesting observation is that 38% of the respondents believed that their technology is superior. Tier-1 suppliers make up the largest group who perceive their technology to be superior. These companies are also internationally owned. It can therefore be inferred that due to the international links technology is transferred to the local industry and this is positive for the sustainability of the industry. South African component manufacturers possess the level of technology appropriate for its sustainability. It can be reasonably assumed that the technology has been derived from the international relationships brokered by the local firm.

Most respondents believed that their equipment is equal to that of global economies. Nearly half of the respondents (49%) believed that their technology is neutral and 19% believed that their equipment is superior (Table 1).

Therefore, a large section of the industry is considered to have the necessary equipment and machinery to compete with global players. There is also a relationship between the ownership of the component firms and the perception of the levels of machinery and equipment. It can therefore be inferred that companies have advanced their investment levels with the technology acquired from foreign investments and foreign ownerships. Companies with a high level of foreign domestic investment perceive that their machinery is ahead of those of the developing nations.

4.2.3 Activity

Table 1 demonstrates that the principal activity undertaken by companies within the South African automotive industry is the manufacturing of components and that it consists of 50% of the total participants in the market. The automotive component industry is associated with issues pertaining to technology, quality, age of machinery, and labour costs are relevant in measuring the level of competitiveness in the industry. A marked observation from the above data is that there is low prominence of raw material suppliers, which leads to some interesting implications.

Raw material suppliers are not sufficiently integrated into the South African automotive value chain, or at least are not seen as automotive suppliers. The question thus arises, why the South African component industry does not integrate one of its potential sources of a major

competitive advantage – the availability and proximity to raw materials – into its value chain. As the research was focused on component suppliers, one explanation is that the survey simply has not targeted these kinds of suppliers.

Another implication is that most of the raw material suppliers do not only supply the automotive industry, but have a diversified customer portfolio and are, therefore, not regarded as automotive suppliers. The high concentration on manufacturing and the low prominence of raw materials suppliers implies that South African companies are not focused on capitalising on a competitive through vertical integration. This may make it difficult for them to compete with other economies.

Liberalisation of the South African automotive industry has resulted in increased volumes and subsequently an influx of foreign direct investment. The automobile sector study (2007) emphasises that outputs increase as foreign inflows are generated. This arises as an economic benefit of liberalisation. The inflow of foreign direct investment has only been directed towards companies that already have international ties.

4.2.4 Foreign direct investment

The study revealed that suppliers received an average of ZAR 47.6 million in foreign direct investment; 24% of the respondents did not receive any foreign direct investment and none of the locally owned companies received any foreign direct investment. This indicates that locally owned suppliers have not acquired new international partners or investors.

Researchers argue that low production volumes in the South African industry do not justify large-scale upgrades in the domestic component industry and therefore the injection of foreign direct investment is the only way in which companies can upgrade technologies. The consequence of not upgrading would have a negative impact on competition with international companies (Black & Banisi 2006:151).

4.2.5 Local content

The average local content of the South African automotive suppliers for their top product (most sold product) is 56%. Therefore 44% of the materials and components are imported. More than a third of the suppliers (40%) stated that their top product contains in excess of 55% foreign content.

The implication of the high import content is that it makes the South African automotive industry uncompetitive and supports the argument as presented in the literature review that

South Africa is more expensive as a vehicle manufacturing base than Western Europe and even more expensive than China and India because of its low percentage of local content in the final product (Venter 2008a:Internet; Venter 2008b:Internet).

4.2.6 Origin of suppliers

Interestingly, the data also leads to a considerable difference in imported raw material content of internationally and locally owned suppliers. The former group states 42% of local raw material in their top products; locally owned suppliers operate with 58% of local raw material content in their top products. Therefore, the conclusion can be drawn that internationally owned suppliers import more materials and components parts for their products.

Tier-1 products show a higher local content, with an average of 68%. This is the only product category that differs substantially from the average. Locally owned suppliers have a higher local content percentage in their top products, with an average of 68%. Foreign direct investment (FDI) arises as the result of liberalisation. It could be beneficial in terms of upgrading technology. However, it is evident that large scale FDI is lacking in the industry, therefore the industry faces challenges when competing with global markets. The high import content arises as a result of the removal of trade barriers that previously protected and encouraged local content. High import content means less support for the local industry as well as higher variability in terms of exchange rate fluctuation, fuel prices and poor infrastructure.

The data presented in Table 2 indicate that automotive component firms source more than 50% of their suppliers from foreign countries. Most suppliers are sourced from Asia at an average of 30%, followed by Europe at an average of 27% and a lessor portion from North America.

The high rate of imports arose as the consequence of the MIDP which promoted an importexport complementation scheme that promoted imports through a duty-free allowance on imported components.

The automobile sector study (2007) reports that short-term pressure causes domestic firms to alter product design and productivity to compete with imported parts for use in domestic markets. Furthermore, the wave of liberalisation affects the level of costs associated with the adjustment to increased competitive pressures. If liberalisation outpaces the rate at which domestic firms can adjust, there could be a negative impact on employment and production

as imports replace domestic production and uncompetitive firms retrench some workers or close down.

IMPACT OF LIBERALISATION	PERCENT
Foreign direct investment	
0	25
1 – 10	11
11 – 50	43
51 – 100	7
101 – 200	0
>200	14
Local content	
0 – 10	0
11 – 20	8
21 – 30	7
31 – 40	22
41 – 50	11
51 – 60	11
61 – 70	11
71 – 80	11
81 – 90	8
>90	11
Origin of suppliers	
Domestic market	49
North America (US and Canada)	14
Western Europe	27
Africa (except domestic)	0
Asia	30
Other	15

TABLE 2:	The impact of liberalisation on the industry (n = 54)
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Source: Derived from primary data collected for this study

4.3 The impact of government subsidisation of the automotive component industry

Automotive component suppliers in South Africa received an average of ZAR 3.0 million in direct government subsidies in 2012 for the purpose of investments and start-up costs. The benefit accrued to 75% of the automotive component firms. Tier-1 suppliers have received the highest average subsidy at ZAR 2.87 million per company and a total of ZAR 24.5million for the 2012 financial year (Figure 1).



FIGURE 1: Once-off subsidies received by the company

Source: Derived from primary data collected for this study

Internationally owned suppliers received on average ZAR 3.66 million per company and a total of ZAR 44 million. This amounts to 80% more than locally owned suppliers.

The low levels of direct subsidies can be explained by the logic of the MIDP, which included programmes to reduce import duties on vehicles and components, facilitate an export-import complementation scheme, access to duty drawback programmes for exporters and a duty-free allowance on imported components.

In general, the rewards were in the form of duty-free allowances rather than direct subsidies. Therefore, the amount of direct monetary subsidies is low but greater benefits accrue to the OEM rather than the component manufacturer.

4.3.1 Export incentives

The export incentives are assumed to stem from the MIDP (APDP) as this is the main programme supporting the automotive industry in the period of study. Export incentives were considered most important in supporting the innovation strategy of automotive companies.

However, only 31% of the respondents have potentially received export incentives. This is because the MIDP is structured more towards the OEM that possesses the greatest propensity to export.

The local component industry obtains an indirect benefit from the increase in OEM markets. However, the data support the view of Flatters (2005:Internet) who claims that the MIDP has provided substantial assistance to the motor industry and as a result the industry has responded by undergoing internal restructuring resulting in substantial investments, accompanied by rapid growth of exports.

4.3.2 New product development

Support for the development of new products was received from local government, national government and international funding; however, only 27% of the component firms have received this benefit.

The national government was the major sponsor of this benefit, contributing 67% of funds to component firms. Local government contributed 25% of the funds and international funding contributed the balance of 8%. New product development incentives were considered second most important in supporting the innovation strategy of automotive companies.

4.3.3 Training and development funding

A large number of component manufacturers have benefited from training and development funding. A total of 72% of the firms have received this benefit which accrued largely from local government. A total of 57% of funds were received from national government while 39% was received from local government and the rest of the funds were received from international funding. An interesting observation from these statistics is that training and development funding is considered least important in supporting the strategic objectives of their company.

4.3.4 Technology incentives

The benefits of technology incentives were largely received from local government. Results showed that half of the respondents indicated support from local government. The rest of the support received from national government (25%) and international funding (25%) (Table 3).

TABLE 3:	The impact of government subsidisation of the automotive
	component industry (n = 54)

IMPACT OF GOVERNMENT SUBSIDISATION	PERCENT
Export incentives	
From local government	7
From national government	93
From international funding	0
New product development	
From local government	21
From national government	72
From international funding	7
Training and development funding	
From local government	39
From national government	57
From international funding	4
Technology incentives	
From local government	50
From national government	25
From international funding	25

Source: Derived from primary data collected for this study

Government influences still have a major impact on the industry with the largest impact required for exports.

The benefits of the MIDP are therefore still sought after to promote the strategies of the companies in the automotive component industry but more especially that of the direct exporters and indirectly for the companies who benefit from the higher volumes produced by OEMS. Funds to promote new product development are also perceived to be important to the industry in promoting the strategic objectives of the firms; however, the low levels of

participation may indicate that companies either do not qualify for the benefits or have merely not taken up the opportunities available.

4.4 The impact of competition on the local automotive component industry

4.4.1 Number of local competitors

Most companies (82%) in the automotive component industry have between zero and two competitors in the market (Table 4). Three clusters, each with one-third of the total, can be identified. The clusters are 1–2 competitors, 3–4 competitors and 5 or more competitors. Similar to the market share statement, it can be noted that the locally owned suppliers experience the strongest competition, with an average of 4.8 competitors, whereas the internationally owned suppliers have to cope with 3.6 competitors.

TABLE 4:The impact of government subsidisation of the automotive
component industry (n = 54)

IMPACT OF COMPETITION	PERCENT
Number of local competitors	
0	21
1–2	38
3–4	23
5–6	11
7 or more	7
Price competitiveness	
Superior	2
Comparable	43
Inferior	55
Labour cost	
Superior	9
Comparable	11
Inferior	80
Quality performance	
Superior	57

Comparable	39
Inferior	4
Strategy to access markets	
Access domestic market	
Quality	32
Cost	33
New product	9
Strategic partnership	26
Access developing market	
Quality	25
Cost	40
New product	3
Strategic partnership	32
Access industrialised market	
Quality	22
Cost	32
New product	16
Strategic partnership	30
Economic adjustments	
Good	4
Fair	51
Poor	45

Source: Derived from primary data collected for this study

From a tier-level point of view, the tier-1 level and the aftermarket are the most competitive. These groups average 4.8 and 5.3 competitors respectively. The South African automotive industry also experiences many challenges due to saturation of demand and intense competition; more demanding customers with increased preferences, reducing profit margins and increasing fixed costs; and developments in information and communication technologies (Ambe & Badenhorst-Weiss 2010:2110; Buzzavo 2008:105). This situation has placed much pressure on the OEM to drill down into the competitiveness of local automotive

component manufacturers. Local automotive component manufacturers are not as competitive as suppliers from other emerging nations such as India and China (Naude & O'Neill 2011:113).

4.4.2 Price competitiveness

Price competiveness in the industry is a cause for concern. About half of the respondents (46%) believed that their pricing is comparable to that of the other developing countries, while 51% believed that their price competiveness is inferior.

It is reported that increasing operational complexities within the automotive industry, rising fuel prices, higher manpower costs owing to higher living costs, and growing pressure from China and India to remain competitive, have led to the industry's growing awareness of the impact that an efficient supply chain can have on business sustainability (Gabru 2008:Internet). Despite these factors, local suppliers are being placed in competition with global suppliers who are characterised by vastly lower cost bases.

4.4.3 Labour cost

Approximately 84% of the respondents believed that their labour cost is lower to that of other developing countries. The composite of this argument implies that developing and developed labour cost is less expensive than in the South African automotive component industry. Therefore, the local automotive firms will be disadvantaged when competing against global markets from a labour cost perspective and contracts will most likely be awarded to low-cost regions at the expense of the South African market.

4.4.4 Quality performance

Approximately 39% of the respondents believed that the quality of their products is better than that of developing countries, while 58% believed that their product quality is comparable. Approximately 69% of the companies with international linkages believed that their product quality is better than developing countries compared to 27% locally owned companies. The companies that consider the quality of their products to be lower can be traced back to tier 1 suppliers who are internationally owned.

The conclusion from the above is that internationally linked suppliers have better quality standards and thus produce better quality parts. This supports the statement that component manufacturers were persuaded to form relationships with multinational corporations in order to meet global standards of quality, design and development.

4.4.5 Strategy to access markets

The different strategies used to access markets indicate the value placed on certain elements of strategic advantages. This section is split into three markets: the domestic market, the developing markets and industrialised markets. The domestic market is the South African local OEM supply, while the developing markets are countries such as India, China and Russia and the industrialised markets are the European countries such as Germany and America. Cost and quality appear to be the key strategies used to access the domestic markets while cost and strategic partnership become more prominent in accessing developing and industrialised markets.

The implication of the above is that strategic partnership becomes more pronounced when exporting to other countries; however, there may not be a strong need for strategic partnership in accessing local markets. Furthermore, the element of cost competitiveness is the ultimate strategic driver used to access automotive component industry markets.

Almost half (45%) of respondents rated their ability to obtain price relief from customers as weak. The results support the view held by Berger (2008:Internet) that tier-1 suppliers are sandwiched on one side by OEMs and consumers and on the other by financial pressures and raw-material markets.

5. **RECOMMENDATIONS**

Based on the findings of the study, the following can be recommended:

Recommendation 1: In order to compete with other developing countries, the South African firms need to formulate strategic partnerships through joint ventures, licensing agreements and technology agreements with global market players in order to tap into the influence that they have in the supply chain.

Recommendation 2: It is important for the local industry to create a level of dependency which stifles the competiveness of companies and their ability to compete in a free market.

Recommendation 3: Local companies need to be agile enough to absorb fluctuating demand conditions and promote lean operations in order to be or remain cost-competitive in a high-cost environment.

Recommendation 4: A more valuable insight can be gained by extending the research to the global industry.

6. LIMITATIONS OF THE STUDY

Whilst the study was structured to solve the research problem, there were certain limitations to the research which need to be understood. The scope of the research was restricted to the South African automotive component industry and cannot be used to formulate trends and cast opinions on other industries or developing countries. The cross-sectional nature of the study limits the findings to a point in time and does not provide a balanced view over a period of time. The data collected for each element in the sample represents the view and knowledge of a single individual within the firm. Further study to be conducted with bigger sample size.

Even though there are limitations, this study uncovered some of the key issues facing the industry in order to understand what influences the structure, strength and nature of the industry.

7. CONCLUSION

In the South African automotive component industry changes have taken place in the ownership structure, the level of operation and their level of dependency in the area of design. Results showed that companies form alliances with global players in order to consolidate their positions in the industry and ensure sustainability in the light of globalisation.

Technology imported rather than developed locally results in deficiencies in the value chain as import content increases. Most companies operating in the South African automotive component industry do not develop their own designs and are therefore heavily dependent on product designs produced by lead source firms. The extent of FDI is not substantial enough to be of much significance to the industry. It was found that a large portion of the industry considers its competitive position to be inferior to that of developing and developed countries. Competition based on pricing is a real issue facing the industry.

South African automotive firms compare poorly to similar businesses in other developing and developed nations with regard to price competitiveness. An alarming concern in the industry is the perception of high labour cost. The majority of firms believe that their labour cost is lower than that of developing countries.

REFERENCES

AMBE IM & BADENHORST-WEISS JA. 2010. Strategic supply chain framework for industry. *African Journal of Business Management* 4(10):2110-2120.

AUTOMOBILE SECTOR STUDY. 2007. Midterm report. Trade SIA of the association agreement under negotiation between the European Community and MERCOSUR [Internet: .http://trade.ec.europa.eu/doclib/ docs/2006/december/tradoc_131427.pdf; downloaded on 28-07-2013.]

BALAKRISHNAN C. 2004. Impact of globalization on developing countries and India. [Internet: http://economics.about.com/od/globalizationtrade/l/aaglobalization.htm; downloaded on 03-09-2012.]

BALLARD R. 2001. Preliminary study on the bovine leather value chain in South Africa. Durban: School of Development Studies, University of Natal. (CSDS research report No. 40, Industrial restructuring project.) [Internet: http://sds.ukzn.ac.za/files/rr40.pdf; downloaded on 04-10-2012.]

BARNES J. 2010. A regional production dynamo: KwaZulu-Natal's automotive Industry. *Trade and Investment KZN*:1-17.

BARNES J & MORRIS M. 2008. Staying alive in the global automotive industry: what can developing economies learn from South Africa about linking into global automotive value chains? *The European Journal of Development Research* 20(1):31-55.

BERGER R. 2008. Global automotive supplier study 2008. [Internet: www.rolandberger.com; downloaded on 03-09-2012.]

BLACK A. 2001. Globalisation and restructuring in the South African automotive industry. *Journal of International Development* 13:779-796.

BLACK A. 2009. Location, automotive policy, and multinational strategy: the position of South Africa in the global industry since 1995. *Growth and Change* 40(3):483-512.

BLACK A. 2011. Trade liberalization, technical change and firm level restructuring in the South African automotive component sector. South African automotive component Sector 173. *International Journal of Institutions and Economies* 3(2):173-202.

BLACK A & BHANISI S. 2006. The SA automotive industry in a globalizing world: what has happened to imports? *Sector strategies: Trade & Industry Monitor*:131-152.

BUZZAVO L. 2008. Business strategies and key success factors for automotive retailers: the case of dealer groups in Italy. *International Journal of Automotive Technology and Management* 8(1):105-119.

CHANG P, BAYHAQI A & YUHUA BZ. 2012. Concepts and trends in global supply, global value and global production chains: Issue paper 1. Singapore: APEC Policy Support Unit.

DTI see DEPARTMENT OF TRADE AND INDUSTRY

DEPARTMENT OF TRADE AND INDUSTRY. 2013. South African automotive industry report 2012. [Internet: http://www.thedti.gov.za/trade_ investment/ automotives.jsp; downloaded on 03-09-2013.]

FLATTERS F. 2005. The economies of MIDP and the South African economy. [Internet: http://www.Engineering news.co.za/print_version.php?a_id=143185; downloaded on 03-09-2013.]

FUANGKAJONSAK W. 2006. Industrial policy actions for developing countries: the case of the automotive sector in Thailand and Malaysia. The Fletcher School, Tufts University, MA. (Thesis: Master of Arts in Law and Diplomacy.)

FUJITA M. 1997. Industrial policies and trade liberalization: the automotive industry in Thailand and Malaysia. Japan External Trade Organization (JETRO). [Internet: http://www.ide.go.jp/English/Publish/Apec/apec09.html; downloaded on 08-11-2012.]

GABRU F. 2008. Audit tool identifies supply chain gaps and improvement strategies. [Internet: http://www.aids.co.za/index; downloaded on 03-09-2012.]

HUMPHREY J. 2003. Globalisation and supply chain networks: the auto industry in Brazil and India. *Global Networks* 3(2):121–141.

KAGGWA M, MORRIS A & STEYN JL. 2007. Sustaining automotive industry growth in South Africa – a review of the first five years of the motor industry development programme. *South African Journal of Economic History* 22:51-73.

MAXTON GP & WORMALD J. 2004. Time for a model change. re-engineering in the global automotive industry. Cape Town: Cambridge.

NAAMSA see NATIONAL ASSOCIATION OF AUTOMOBILE MANUFACTURERS OF SOUTH AFRICA

NATIONAL ASSOCIATION OF AUTOMOBILE MANUFACTURERS OF SOUTH AFRICA. 2011. NAAMSA Annual Report 2009/2010. Pretoria. [Internet: http://naamsa.co.za/papers/ar; downloaded on 2014-03-15.]

NAUDE MJ & O'NEILL C. 2011. The quest for survival in the South African automotive industry: a supply chain perspective. *Alternation* 18(1):111-131.

VENTER I. 2008a. Why South Africa has opted to save its auto industry. *Engineering News* September 19. [Internet: http://www.engineeringnews.co.za/article.php?a_id=142730; downloaded on 14-08-2012.]

VENTER I. 2008b. SA's auto-materials costs far higher than those of key competitors. *Engineering News* September 26. [Internet: http://www.engineeringnews.co.za/print_version.php?a_id=143185; downloaded on 23-08-2012.]

WAD P. 2010. Impact of the global economic and financial crisis over the automotive industry in developing countries. Vienna, Austria: United Nations Industrial Development Organization (Working Paper 16/2009).