BEYOND SURVIVAL: CHALLENGES FACING SOUTH AFRICAN AUTOMOTIVE COMPONENT EXPORTERS

MJ Naude & C O'Neill, University of KwaZulu-Natal

Purpose and Objective: The South African automotive component industry faces huge challenges in a very competitive global market. The primary focus of this research article is to determine the challenges facing exporters within this industry with special reference to selected sub-sectors. The challenges are approached from a supply chain perspective only.

Problem Investigated: The research problem of this study was to identify these unique challenges and ascertain whether the implementation of a `philosophy of continuous improvement` could be used as a strategic tool to address the challenges they face in the market.

Methodology: This study included a combination of literature review, interviews with managers in the selected sub-groups and questionnaires sent out to determine the challenges facing automotive component exporters.

In order to test the content validity and the reliability of the questionnaire, a pilot study was conducted at two organisations that are the main suppliers of automotive filters for passenger vehicles.

The non-probability convenience sample technique was used to select the sample and consisted of selected sub-sectors that contribute 64,1% of the total value of automotive component exports in South Africa. Out of twenty-seven questionnaires sent out, twenty (74% response rate) were duly completed by the respondents and returned to the researcher.

Findings: South Africa faces unique challenges and these are listed and ranked according to priority from most to least important as follows:

1. The reduction of production costs;
2. R/US$ exchange rate effect on the respondent's export sales and profit margin;
3. Exchange rate fluctuations;
4. Threats to the local automotive component market; and
5. Increased competition by way of manufactured imports being sold in the South African market.

Value of Research: The study provides recommendations that can be used within the automotive component industry.

Key words and phrases: OEMs, automotive component industry, competitive advantage, globilisation, South African motor industry, exports, challenges, continuous improvement.

INTRODUCTION

A country historically not known to have been a global player in the automotive industry, the globally competitive nature of the automotive industry and the dominance of developed nations in the global automotive industry make it unlikely for a developing country such as South Africa to succeed in the global automotive industry.

Due to the competitive nature of the global automotive industry, the approach of the South African automotive industry to focus on automotive components rather than the entire automobile appears to have been more realistic. The global automotive component industry is, however, also a very competitive industry but based on the fact that each motorcar consists of thousands of components, it offers more scope for market entry than the market for fully assembled motor vehicles. The competitive nature of the automotive component industry, however, requires that organisations operating in this industry need to

strive to establish and sustain a competitive advantage should they wish to survive and grow. This quest for competitive advantage is apparent in the recent empirical research undertaken in the automotive component industry in South Africa.

In this article, existing literature with regard to the global automotive industry in general and the South African automotive component industry in particular is initially reviewed. The research methodology stipulated the empirical research undertaken, the findings, and analysis of the findings, summary and recommendations.

The objectives of this research were to:

1. Determine the challenges that face South African automotive component manufacturers.

2. Determine whether the "quest for survival" can help the South African automotive manufacturers to address the challenges they face.

LITERATURE REVIEW

Under the literature review, a brief overview is given of the global automotive industry in general and the South African automotive component industry.

Introduction

A major transformation in the global economy has taken place. Historically, national economies were comparatively isolated from each other. Distance, time zones, language, national differences in government regulations, culture and business systems also isolated national economies. Currently, there is a movement towards a world in which national economies are merging into a mutually dependent global economic system, commonly referred to as globalisation (Hill, 2001:4). Hodgetts and Luthans (2000:4) acknowledge that the world of international business management changes swiftly - one primary reason being that increased foreign investment and trade bring managers from one country into ongoing contact with those in others. Consequently, organisations find that they need to develop global management expertise in order to successfully compete in global markets. Although the movement towards globalisation has been obvious in many industries and countries, the cautionary remarks of Huntington (1993) that nationalism is still an opposing force to globalisation should be taken seriously in the global marketplace. For the purposes of this article the approach taken is that globalisation is the predominant trend with regards to the motor component industry.

An organisation achieves sustainable competitive advantage when an attractive number of buyers prefer its products and/or services over the competitors' products and/or services and when the basis for this preference is lasting (Thompson, Gamble & Strickland, 2006:4). According to Kanter (1997:27), organisational sources of competitive advantage include core competence, time compression, continuous improvement and closer relationships with key partners. Thus, organisations that are focused, fast-moving, flexible and dependable are more likely to sustain their ability to endure market shifts and even establish new markets.

The primary aim of most organisations is to make a profit, which refers to the difference between what it costs to produce and sell a product (Ferrell & Hirt, 2000:4). Hill (2002:379) states that profits rise if the price an organisation can charge for a product is greater than the costs of producing that product. Organisations increase profits in two ways; by adding value to a product so that consumers are willing to pay more for it, or by lowering the costs of production.

In the automotive industry, global trade is more than a century old. Almost as soon as the first motorcars appeared, manufacturers like Ford began to export. Even in developing countries that entered the motor industry at a much later stage, global orientation developed as opportunities to become involved at the first phase of the globalisation process, namely exporting, were increasingly pursued. South Africa has a

number of original equipment manufacturers. BMW, Ford, Volkswagen, Daimler-Chrysler and Toyota all have production facilities in various locations in the country. Vehicles are produced for the local and international market. A good example is Toyota that is planning to increase its annual production by 2007 to 200 000 vehicles, 80 000 of which will be sold locally and the balance will be exported (Tera, 2003:1).

This motor industry has been well supported via a vibrant automotive component industry that supplies the original equipment manufacturers, the South African aftermarket, and a spread of 249 export markets. (Trade and Investment South Africa, 2003:27).

The Need for Competitive Advantage

The global automotive component industry is a very competitive environment and South African automotive component manufacturers continue to seek sources of competitive advantage in order to survive and grow. The strengths in the South African market can be used as a source for competitive advantage. These strengths include the technological sophistication, expertise and flexibility that enable local automotive component manufacturers to manufacture a wide variety of products quickly and economically in small volumes whilst at the same time meeting high international quality and supply reliability standards (Trade and Investment South Africa, 2003:41). With regards to competitive advantage, Porter (1990:3) states that there have been many explanations as to why some nations are competitive and others are not. Porter identifies that competitive advantage developed from the value an organisation is able to create for its customers - this could be by offering low prices or unique benefits. Schonberger and Knod (1994:10) suggest that strategic factors that best describe competitive advantage for any organisation are quality, efficiency, reduced costs and continuous improvement, which are at the heart of supply chain management. Organisations are attempting to achieve competitive success through their supply chains, and the whole approach can be described as the "Value Chain Concept".

Hill (2001:379), based on Porter's model, views the organisation as a value chain which comprises a series of distinct value creation activities such as marketing, materials management (inbound and outbound logistics), research and development, human resources, information systems, manufacturing and the organisation infrastructure. These value creation activities are categorised into primary and support activities. Primary activities are related directly to the production and distribution of an organisation's products and services. Support activities consist of the organisation's infrastructure, human resources, technology and procurement. Davis, Aquilano and Chase (2003:17) define the value chain as consisting of all those series of steps that add value to the product without distinguishing where they are added, and aims to eliminate all non-value added steps. An analysis and evaluation of the various activities in the value chain can be applied by automotive component manufacturers in order to identify potential sources of competitive advantage.

The Automotive Component Industry

Trade and Investment South Africa (2003:26) states that South African component exports increased by 23.1% to R22.9 billion in 2002 from R18.6 billion in 2001 and that the main components exported under the Motor Industry Development Programme were catalytic converters. Barnes (2000:12) reports that catalytic converters, leather seat covers and aluminium based products made up the bulk of automotive component exports, with the vast majority of these exports being exported to Germany. This is confirmed in Trade and Investment South Africa (2003:27), as South Africa has a spread of 249 export markets for automotive component manufacturers - most competitors typically tend to have only one target market. The main destinations continue to be first-world markets with Germany comprising 37.5% of the total component exports in rand terms. The European Union (EU) was South Africa's main export destination in 2002 and represented 70,8% of the automotive component industry's exports.

However, on the downside, the EU absorbed ten countries on 1 May 2004 and acquired well-prepared lower-cost, technically advanced markets. These countries are: Poland, the Czech Republic, Hungary, Slovakia, Slovenia (these are active players in the automotive sector), Lithuania, Latvia, Estonia, Cyprus and Malta. In addition, automotive manufacturers in the EU have been adding volume and taking

advantage of liberal incentive packages and special economic zones to locate new or expand production plants into these countries (Trade and Investment South Africa, 2003:27).

Trends in the Business Environment

Hugo, Badenhorst-Weiss & Van Biljon (2004:325) state that during the 1990s, most global industries were changed from closed to open industries resulting in an increase in global trade and the integration of business. Through this integration progression, national economic borders and trade barriers have almost totally disappeared. People, materials, products and information now move more freely between countries than before the integration process. Globalisation refers to the move toward a more combined and mutually dependent world economy.

There is a movement towards the globalisation of production, as goods and services are purchased from different parts of the world in order to take advantage of national differences in the cost and quality of factors of production (Hill, 2001:7). By doing this, organisations hope to reduce their overall cost structure, improve the quality of their products and thus allowing them to sell their products at a lower price. This will enable organisations to sustain a competitive advantage.

Where a single production facility is concerned, the South African automotive component industry is able to manufacture a range of quality products at competitive prices because of lower input costs. South African automotive component manufacturers also have a competitive advantage from a flexibility point of view, as these are able to produce lower volumes compared to other countries where production is set up for long high-production runs (Trade and Investment South Africa, 2003:41).

Because of foreign direct investments and imports, all organisations are affected by global competition. Competitive rivalry has increased and organisations have found their home markets under attack. This kind of competition has led to decreased profit margins and makes it essential for organisations to maximise their efficiency, quality and customer service (Hill, 2001:94).

This concludes the section on literature review. The following section deals with the research methodology.

RESEARCH METHODOLOGY

Under the research methodology section, the research problem, the research objectives, the nature of the research, the sample, the pilot study, questionnaire design, data collection and the analysis of the findings are clarified.

Research Problem

To determine whether potential areas of competitive advantage exist that can enable South African automotive component manufacturers to address the challenges they face in the market.

Research Objectives

The research objectives are to empirically determine:

1. The challenges that face South African automotive component manufacturers; and
2. Whether the quest "beyond survival" can help the South African automotive component manufacturers to address these challenges.

Nature of the Research

The research objectives and sample size of the sub-sectors investigated require this research to be predominantly qualitative in nature.

Sampling

The non-probability quota sample technique was used. The population for this study were sub-sectors within the automotive component industry that represented at least 60% of the total exports of the automotive component industry. The ideal would have been to have taken a random and representative sample of the *universum* of exporters in the automotive component industry. However, as this industry consists of numerous sub-sectors, many of whom contribute only minute portions to the total exports, initial research and practical considerations suggested that it would make more sense to concentrate the empirical research on the larger sub-sectors that represented more than 60% of the exports. Catalytic converters followed by stitched leather components, tyres and road wheels dominate exports and these sub-sectors in 2002, contributed 64,1% of the total component exports in South Africa. These sub-sectors were therefore selected.

The number of organisations within the selected sub-sectors is relatively small and all were included in the research study. Out of a total of 31 potential organisations, two of the organisations declined to partake in this study and a further two stated that they did not export. Therefore only 27 questionnaires were sent out of which 20 were duly completed and returned by senior management staff who dealt with exports.

Questionnaire Design

The questionnaire was based on the literature survey and was divided into three sections, namely section A, section B and section C. Each section is briefly discussed hereunder.

Section A dealt primarily with the organisation profile, such as the organisation name, name of the person who completed the questionnaire, the number of employees employed at that organisation, whether they belong to a trade union, the total amount of sales exported during 2002 and 2003 and lastly the quality accreditations that the organisation has in place. The data obtained from this section was mainly used to categorise organisations for analytical purposes.

In section B the aim was to investigate challenges faced in global markets from a supply chain management perspective. These challenges were identified in the literature review and used as a basis for the questionnaire.

Section C included general questions related to South Africa. These included a series of questions designed to determine opinions on various issues that are relevant in the South African business environment.

Pilot Study

To test the content validity and face validity of the questionnaire, the initial questionnaire was used to conduct a pilot study at two organisations that are the main suppliers of automotive filters for passenger vehicles. Based on feedback and queries received from the respondents, the questionnaire was slightly modified during the pilot study. The results of this questionnaire were used in the main research.

Data Collection

A list of all automotive component manufacturers, together with contact details were obtained from The National Association of Automotive Component and Allied Manufacturers, The Department of Trade of Industry Chamber of Commerce, and Benchmarking and Manufacturing Analysts. All respondents were contacted via telephone prior to sending out the questionnaire. This was found to be most useful as at each instance, the questionnaire was sent to a senior manager who was dealing with exports. Most completed questionnaires were returned within one week, and some irregularities that were experienced were that when questionnaires were faxed, certain pages were missing requiring follow up to be taken.

Analysis of the Findings

The completed questionnaires were summarised and analysed. The findings were consequently compared to the literature review. As the sample selection was based on the identification of the largest sub-sectors in the automotive component industry, and not on random selection, no claims to representativity of the entire automotive component industry are made.

The results of the research are dealt with in the next section.

RESEARCH RESULTS

The challenges facing the South African automotive component manufacturers and their potential to create a competitive advantage are derived from the empirical research. Details of the findings are given under this section.

Response

A response rate of 74% was achieved.

Findings: Section A: Profile of Respondent Organisations

This section deals primarily with the organisations' profiles. The data obtained from section A of the questionnaire has mainly been used to categorise organisations for analysis purposes.

Number of staff

The organisations that participated in the study employ a total number of 12 673 employees (which is 17.1% of the overall automotive component industry). Trade and Investment South Africa, (2003:47) and DTI (1999) in Barnes (2000:9) state that 74 100 employees are employed in the automotive component industry. However, it must be noted that not all automotive component manufacturers are into exports**.** With the exception of one small organisation, all of the participants are unionised.

Product category

The following sub-sectors were selected to partake in this study:

- Catalytic Converters
- Stitched Leather Components
- Road Wheels and Parts
- Tyres
- Filters (pilot study)

Percentage of sales exported

Within the selected sub-sectors, export sales decreased slightly from 61.47% in the year 2002 to 61.19% in the year 2003. Despite various challenges, export sales in the automotive component industry only decreased marginally (0.28%) from 2002 to 2003.

Quality accreditation

All respondents with the exception of one small organisation in the wheel industry are quality accredited. Mention must be made of the fact that most respondents have more than one ISO accreditation system in place, the most popular being ISO TS16949 followed by ISO14001. It therefore appears as though the vast majority of exporters in the automotive component industry attach a high value to accreditation. This can be attributed to the effect of demands from their global target markets.

Findings: Section B: Challenges Faced in Global Markets

South Africa faces unique challenges and these are listed and ranked according to priority from most to least important. During analysis, the non-standardised and complex nature of the data was classified into categories before they were discussed. Rating or scale questions were used to collect opinion data, and the Likert-style rating scale approach was used. The objective of this study is to provide policy makers with some insight into real problems with regard to supply chain management in the automotive component industry.

Questionnaires were analysed using both Excel and Word. Sixteen major challenges facing exporters within this industry were identified, however for the purpose of this article the top five challenges have been focused upon. These challenges are:

1. The reduction of production costs;
2. R/US$ exchange rate effect on the respondents' export sales and profit margin;
3. Exchange rate fluctuations;
4. Threats to the local automotive component market; and
5. Increased competition by way of manufactured imports being sold in the South African market.

Each of these challenges is discussed hereunder. The first major challenge identified is the reduction of production costs.

The reduction of production costs

All respondents noted that the reduction of production costs is a challenge facing exporters in the automotive component industry. A recurrent comment is that labour costs keep on increasing and productivity does not improve at the same rate. Labour costs are considered to be relatively high (a high level of over regulation of the labour environment and high level of unionisation) and therefore South African organisations are not competing on level playing fields with overseas competitors. Furthermore, South African exporters compete against all markets, for example the Chinese and Korean markets. Most exporters have been reducing selling prices each year as a result of inflation being higher in South Africa than in most first world countries and due to exchange rate fluctuations. In line with this, there are constant and consistent pressures from customers to reduce costs/prices. Currently, there is tremendous pressure on this issue not just in South Africa, but also globally.

Some recommendations on how these challenges may be addressed from a supply chain perspective include:

1. Become more globally competitive through lean production. Lean production has transformed the quantity, delivery and inventory aspects of materials management and has also required a new approach toward quality.
2. Reduction of costs can further be achieved by reducing the number of suppliers and developing partnership relationships with suppliers.
3. Automate processes, thereby reducing labour.
4. Use competitive benchmarking to identify the gap between industry and own organisational standards.
5. Introduce a philosophy of continuous improvement, as a way to better compete is by producing better quality products and by focusing on the poor quality aspect of imported components.

The main objective for organisations in South Africa will be to become more efficient, lower their cost structures and continue to provide superior quality products.

The second challenge identified is the R/US$ exchange rate effect on respondents' export sales and profit margins.

R/US$ exchange rate effect on respondents' export sales and profit margins

Exchange rate fluctuations are some of the most difficult costs to account for in international purchasing, as a few months of currency changes can wipe out hard earned profits (Dornier, Ernst, Fender & Kouvelis, 1998:326). All of the respondents that took part in this research study acknowledged that the strengthening of the R/US$ exchange rate has had an adverse impact on both export sales and profit margins. In order to counterbalance this, some respondents noted that they had adjusted their trade balance towards imports, in other words that they are importing more than before. Others noted that, in the short-term, they purchased Forward Cover of currency, or introduced hedging policies by purchasing in US$ and selling in US$. Another interesting measure was that of cutting manufacturing costs wherever possible. In many cases, this had been achieved by reducing/eliminating labour intensive processes and practices through becoming more capital intensive, thereby retrenching staff and also by becoming tougher negotiators when purchasing raw materials. Lastly, one respondent noted that his organisation has undertaken full internal restructuring on all areas affecting the organisation, especially non-value adding items, which have been eliminated.

In line with the exchange rate effect on respondents' export sales and profit margins, exchange rate fluctuations is also identified as a major challenge.

Exchange rate fluctuations

Of the respondents, 90% agreed that exchange rate fluctuations are a challenge facing exporters within the automotive component industry. All of the respondents noted that a stable Rand would be helpful when exporting, although, a stable vs. weakening Rand would not be helpful, while a stable vs. strengthening Rand would be. To counter-balance the effect of this challenge, some respondents made the following suggestions:

1. Purchase forward cover when importing.
2. Where the organisation is involved in a long-term supply relationship, maintain a stable price in US$ and absorb the shocks caused by temporary fluctuations.
3. Reduce current profit margins rather than permanently lose market share.
4. Export to Sub-Saharan African countries that have currencies that are weaker than the Rand to offset losses incurred on overseas exports (USD based).

The fourth major challenge ascertained, are threats to the local automotive component market.

Threats to the local automotive component market

Stevenson (1999:23) states that Asian markets, especially China, loom on the horizon. The result of all these changes has been a substantial increase in the level of global competition, a trend that shows no sign of abating in the near future. Of the respondents, 90% acknowledged that the emergence of the Chinese automotive component market would affect the local South African automotive component industry. Trade and Investment South Africa, (2003:27) warns that the surfacing of China and India as major players in the global automotive market presents a threat to the growth of South African component exports. However, on a positive note, Trade and Investment South Africa, (2003:27) acknowledges that South Africa could find itself in a favourable position as strong political relationships already exist between South Africa and China. For example, China will need large quantities of platinum group metals, catalytic converters and a variety of other automotive-related products and materials that South Africa would be able to supply. Furthermore, the Chinese see South Africa as their most likely point of entry for automotive exports into sub-Saharan Africa.

Of the respondents who had acknowledged that they considered China to be threat to the local automotive component industry, some had contingency plans in place for "counter-attack". Some of these contingency plans are: back to basic production efficiency; continuous improvement; conducting market research; starting a similar organisation in China; reducing costs; and improving throughput. The main

aim would be for organisations in South Africa to become more efficient, lower their cost structures and continue to provide superior quality products, in order to maintain a competitive advantage**.**

Not only do South African automotive component manufacturers face threats in the local automotive component market, but they also face the challenge of intensified competition by way of manufactured imports being sold in their domestic market.

Increased competition by way of manufactured imports being sold in the South African market

Although only 65% of the respondents noted that imported products had affected their local markets, the remaining 35%, namely the manufacturers in the catalytic converter industry, responded that imports have had no effect on the domestic market, as these respondents: 1) do not sell products into the domestic market; and 2) do not consider imports as a threat because of the raw material cost factor. However, manufacturers of the remaining sub-sectors of the automotive component industry noted that imports had affected their local market for reasons such as: 1) imports are pushing domestic prices down; 2) cheap imports of lower quality and shorter life from the East are flooding the market; and 3) imports are selling below South African cost prices.

From feedback received from the respondents, the assumption is made that, overall, imports have affected automotive components' domestic markets and that this affects profit margins adversely.

The following are some recommendations on how to counteract this threat:

1. Instil a culture of continuous improvement, in order to offer better quality products than competitors.
2. Constantly monitor the competitive environment to better understand the threats.
3. Conduct market research.
4. Search for new investment areas as competitors have done.
5. Ultimately reduce selling by reducing production costs - for example reduce purchase and logistics costs.

Findings: Section C: General Questions Related to South Africa

Section C was designed to determine opinions on various issues relating to South Africa. Issues identified included: the emergence of the Chinese automotive component market; the adoption of the ten new countries into the EU; whether South African automotive component manufacturers can not only achieve but also sustain world-class performance standards; and whether the industry is improving its competitiveness fast enough to keep up with continuously improving international competitors.

The respondents acknowledged that South African suppliers are facing enormous challenges from China, Eastern Europe and South America. Some respondents recognised that the emergence of the Chinese market was perhaps their biggest challenge. Therefore it is recommended that, in order to survive, it is vital that all involved concentrate on improving production costs and efficiencies to remain competitive in this global environment.

Regarding South African automotive component manufacturers achieving and sustaining world-class performance standards, most respondents were confident that this was in fact being achieved.

EMPHASIS OF IMPACT TO MANAGEMENT AND SOUTH AFRICAN ORGANISATIONS

In this global and highly aggressive marketplace, it is essential that managers within the automotive component export market are aware of the numerous challenges that face them. In order to survive and to remain competitive in this global environment, South African exporters need to reduce their production costs and increase their production efficiencies. This can be achieved through the introduction of lean production practices to reduce inefficiencies, to eliminate non value-added processes, and to reduce time and material wastage. Another change to improve competitiveness, and reduce stock levels, would be

the introduction of just-in-time production as an ongoing methodology, in which processing and movement of materials and products take place as and when they are needed. The reduction of one's supplier database and developing collaborative relationships with suppliers also has potential for the improvement in processes and the reduction of costs.

CONCLUSION

In conclusion, in order to survive, it is essential that South African exporters adhere to the philosophy and practice of continuous improvement to become and remain more globally competitive. Local automotive component manufacturers are facing enormous challenges from foreign imports into the domestic market. This will negatively impact on selling prices and profit margins, and as a consequence affect the employment market, as it will ultimately result in job losses. To understand those areas in which continuous improvement is most needed, it is important that automotive component manufacturers in South Africa benchmark their processes, and practices against their competitors and identify and eliminate any gaps. Failing this, the growth of the industry will decelerate. Without continuous improvement and thus the ongoing and sustainable reduction in production costs, through the reduction of duplication and waste in all its forms, and a general improvement in efficiencies, the South African automotive component industry will not be able to remain competitive.

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