

RESEARCH ARTICLE

The Effects of the Global Economic and Financial Crisis on the South African Automotive Industry

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Abstract

The global economic and financial crisis has had a severe impact on the South African automotive industry, which is the market relevant to this study. This research therefore aims to examine and explain the effects of the global economic crisis on the South African automotive industry. The objectives of this study are to explore and to investigate the supply chain issues facing OEMs and franchise dealerships, to determine whether the global recession has brought the automotive industry to the edge of another major change; a fourth revolution, to determine whether the motor industry should receive a government bailout and to explore and investigate the resultant work restructuring levels of managers in the South African automotive industry. A positivist research approach was adopted. A research strategy encompassing an explanatory and descriptive survey design was used in this research. The research instrument in the form of questionnaires were designed and uploaded on Survey Monkey ® in order to collect primary data. The participant's responses were then analysed using quantitative means.

The results of the study emphasised that the South African automotive industry has become an increasingly significant contributor to the South African economy and therefore adds value to the South African economy. It was evident that the South African economy has suffered negative economic consequences as a result of the effects of the global economic and financial crisis. These negative consequences have led to job losses and reduced disposable income in the local economy. It was found that consumers have prolonged the purchasing of high value items like motor vehicles which has resulted in a decline in income for large automotive firms. It was established that the provision of government assistance for the automotive sector was essential. Due to the downsizing of management staff, managers were forced to manage more than a single department resulting in increased workloads, stress and job insecurity. It was evident that managers were spending less time with their families and more time at work. Hence the need to restructure the work levels of managers was emphasised in this research.

Keywords: *Economic, Financial Crisis, Automotive Industry, Management, Restructuring.*

Introduction

The automobile has been embraced by people globally, whenever economic growth and rising incomes made it affordable to purchase and run one. This in turn increases people's spatial and social mobility and enables industrial development through the efficient transportation of production factors [1].

Some have argued that the automobile industry represents a mature industry with:

- Overcapacity.
- Regressive technology.
- Inundated demand.
- Slow or stagnating growth.
- Diminishing employment.
- Deteriorating market capitalization and
- Rising liability.

OICA however, contends that the automobile industry is still a major growth sector. According to OICA [2] the auto industry is a world-class industry, which drives economic growth in every major country in the

world. The auto industry remains a growth industry, with a remarkable 30% plus growth rate in the past decade of 1995 - 2005. Globally the automotive industry generates 60 million jobs and contributes immensely to local economies. Auto manufacturers support many supplier industries such as steel, glass, plastics, computers and motor accessories [2].

The last 100 years have been a century of motorization with global motor vehicle production exceeding 70 million units in 2007. It is interesting to note that motor vehicle ownership had reached around 900 out of 1000 people in the driving age in the USA and between 500-600 in Western Europe and Japan [3].

The Aim of the Study

The aim and purpose of this study is to identify ways of overcoming the current challenges experienced by South African original equipment manufacturers (OEMs) as well as franchise dealerships, including, but not limited to their supply chain issues.

The Objectives of the Study

- To explore and investigate the supply chain issues facing OEMs and franchise dealerships as a result of the global recession.
- To determine whether the global recession has brought the automotive industry to the edge of another major change; a fourth revolution.
- To determine whether the motor industry should receive a bailout in the face of the global economic recession.
- To explore and investigate the effects of the global recession on the work restructuring levels of managers in the South African automotive industry.

Literature Review

The financial integration of recent decades has had important benefits for emerging economies, but has also been associated with increased financial turbulence. South Africa has been no exception, with local financial markets severely affected by financial crises over the past decade. These crises have motivated economists to study the dynamics and underlying causes of financial crises and also to look at the effects of this turbulence on the economy.

According to Allen and Gale [4], financial crises have occurred in four eras i.e. the gold standard era (1880-1913), the interwar years (1919-1939), the Bretton Woods period (1945-1971) and the recent period (1973-2008). There are several individual financial crises that have occurred within these periods, the most notable one being the great depression of the 1930s.

The most benevolent period was the gold standard era. During this period, banking crises occurred but were limited. Currency crises were also limited compared to subsequent periods. The implication was that globalization did not inevitably lead to crises since the global financial system was fairly open at that time. The interwar years were the worst with regard to the frequency of crises in the four periods. This was not so surprising given that this was when the great depression occurred.

Banking crises were particularly prevalent during this period relative to the other periods. The economic damage caused by the current crisis has been said to have troublesome parallels with the great depression of the early 1930s. The great contraction of 1929-1933 was the worst recession in the United States of America. Output declined by 34%, prices by 24% and unemployment rose from 4% to 25% [4]. Allen et al. [4] explains that after the great depression, most policymakers were so determined to prevent such an event from occurring again that they imposed strict regulations or brought the banks under state control to prevent them from taking much risk. As a result banking crises were almost completely eliminated. This period was known as the Bretton Woods period. Besides the twin crisis in Brazil in 1962, there were no banking crises at all during the whole period. Frequently, currency crises did occur but these were mostly because macroeconomic policies were conflicting with the fixed exchange rates level set in the Bretton Woods system.

The recent global financial crisis has left very few sectors in the economy untouched by its recessionary path. One sector that has been relentlessly hit on a global and national scale is the automotive sector. This has

resulted in an appeal for bailouts from governments in many developed countries such as the United States, Australia and Europe. The recession has also hit the South African automotive industry, which has suffered a severe decline in car sales. This has already resulted in job losses and dealerships having to close down [5].

The South African automotive industry has requested government assistance to help it through this downturn. Many opinions have been expressed regarding whether the South African government should assist the motor industry or not. One of the intentions of this research is to examine the motor industry in terms of the following:

- The economic influence of the motor industry on the South African economy.
- The economic influence of the motor industry on the Kwa Zulu Natal (KZN) economy.
- The South African automotive industry crisis and its implications.
- Arguments that support and oppose government intervention.
- Support for South African industrial sectors in distress.
- Effects of the global recession on the supply chain of the South African automotive industry.

The Economic Influence of the Motor Industry on the South African Economy

Even though the South African automobile sector may be considered insignificant in global terms, it has always caught the attention of South African policy makers and therefore has received some form of intervention from government. The industry can be divided into two sectors, the first being vehicle manufacturing and sales and the second being components manufacturing and sales. These sectors have proven to be very significant to the automobile industry as a whole, with the component sector being considered as an integral part of the automotive industry [6].

Beires [6] notes that the involvement of state entities in the form of either financing regimes or the levy of import quotas and tariffs or the repression of labour unions have all played their part in the development of the automotive sector.

During the apartheid era, the industrial framework was one of import substitution and this resulted in high tariffs which provided the South African automotive firms with some form of protection. This resulted in them operating at levels of productivity, quality and innovation well below international automotive standards. The situation changed in the 1990's when the new political regime began in South Africa. The new government introduced economic policies that fast-tracked trade liberalization as an attempt to get South Africa back into the global economy after the long period of isolation. Due to this new focus on integration into the global economy and promotion of free trade, quotas were abolished and tariffs reduced in the automotive sector. As a result of this policy change duty levels on completed vehicles fell from 115% in 1995 to 40% in 2002 [6].

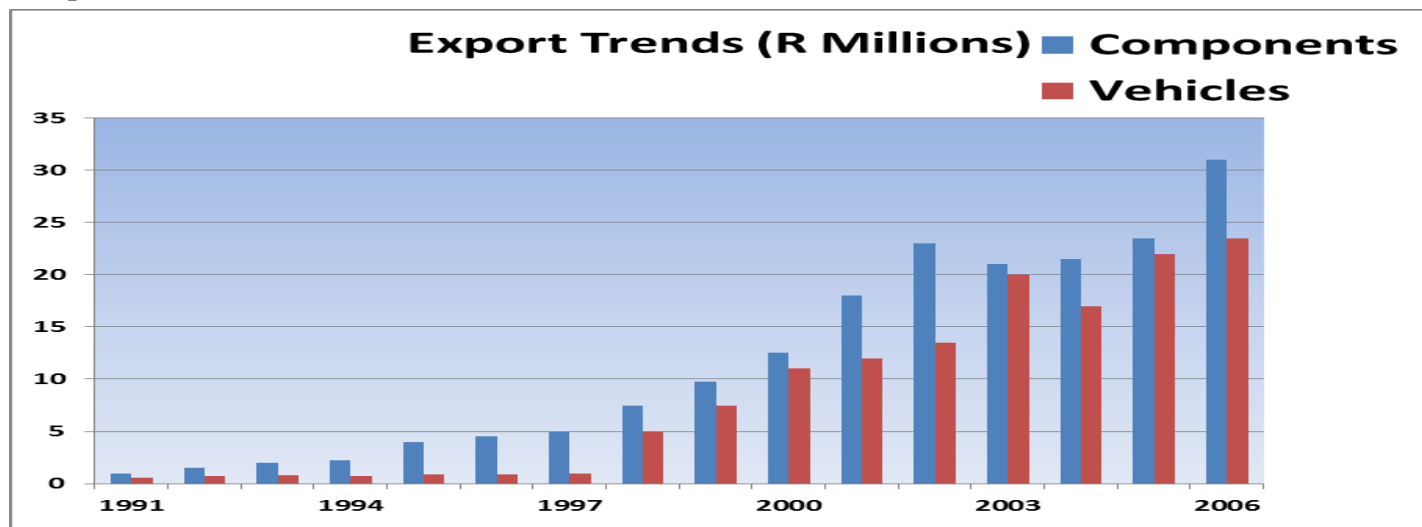
One of the strategic industrial policies that were implemented in the 1990's was the Motor Industry Development Plan (MIDP). This policy came into being in 1995 and was in line with the new government's focus on export oriented industries. Beires [6] note that the main objective behind the initial form of the MIDP was to secure the investment commitment of the major original equipment manufacturers (OEM's) in South Africa.

The first OEM's to respond to the MIDP were Daimler Chrysler, VW and BMW and who injected significant capital into SA for the production of motor vehicles. The majority of these vehicles would be destined for export markets. The MIDP was seen as an export oriented strategy as it rewarded exporters with duty rebates on imports.

During the period 1994-2002 the automobile sector grew significantly with the export output ratio doubling [7]. The MIDP together with the depreciation of the rand, allowed the South African automobile industry's total manufacturing sales to grow from 9, 7% in 1994 to 12, 8% in 2003. The graphs that follow represent the growth of the automobile industry from the period 1991-2006. Graph 1 below shows the exponential growth in

automobile exports that occurred after 1995, which was the year in which the MIDP was introduced. It is interesting to note that both vehicle exports and components exports increased dramatically. According to Barnes et al. [7] the major component exports that play a vital role in the South African automobile industry grew significantly during this time period. These comprised mainly catalytic converters and leather seat covers at the time.

Graph 1

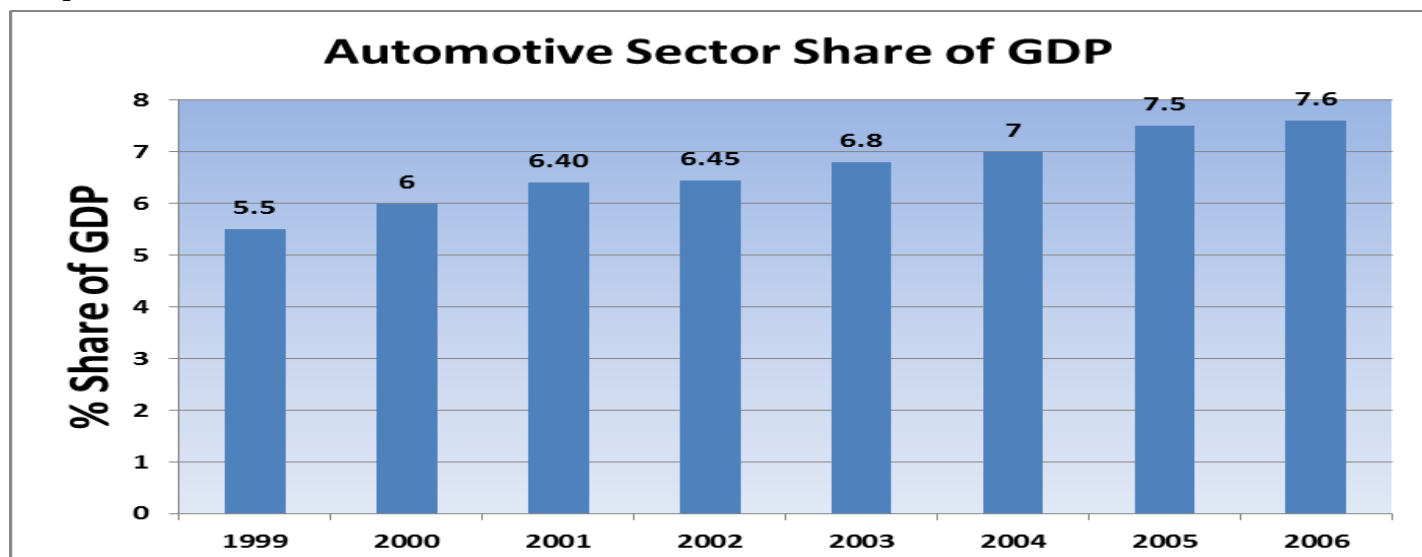


Source: NAAMSA Statistics

Although South Africa is still a fairly insignificant exporter on a global scale, in terms of the automotive industry, its share of the global auto production increased from 0, 79% to 0, 85% between 2005 and 2006. In 2006 South Africa exported vehicles to 74 countries. 29% of exports went to Japan, 20% to Australia, 12% to UK and 11% US [8]. It is therefore evident that as an industry, the automotive sector in South Africa has been making significant progress as an export orientated industry. Graph 2 below depicts the automotive sector’s share of GDP from 1999 to 2006. It is evident that this sector has become an increasingly significant contributor to the South African economy and reaching a peak contribution of 7, 6% of the share of GDP in 2006 [8]. This equated to R1, 727 billion contributions in rand terms.

When evaluating the employment figures in the automotive industry, statistics from NAAMSA reveal that the aggregate employment in the automobile manufacturing industry amounted to approximately 38 700 persons in 2009 with employment in the component manufacturing industry of approximately 81 000 employees.

Graph 2



Source: NAAMSA Statistics

In the components sector it is the catalytic converter industry which is the strongest employer as it employs over 5000 people. Total employment in the motor trading sector comprising vehicle sales and vehicle maintenance and servicing, amounts to approximately 200000 persons. NAAMSA has released the following list of industries that are in existence due to the automotive sector:

- 1 700 specialist tyre dealers and retreaters.
- 400 garages and fuel stations with the majority having service workshops.
- An additional 1 800 specialist repairers.
- About 300 vehicle component manufacturers and a further 150 others supply the industry on a non-exclusive basis.
- 1 350 new car dealerships holding specific franchises.
- An estimated 1 580 used vehicle outlets.
- 480 engine reconditioners.
- 170 vehicle body builders.
- 770 parts dealers and
- Approximately 180 farm vehicle and equipment suppliers.

These employment statistics emphasise the significance of the automotive sector on the South African economy. The multiplier effects that result in the economy as a result of the motor industry are significant. Disposable income is earned and spent as a result of the industry. There are also various other industries and businesses that are supported by it. It is therefore an industry in which a positive value chain is evident.

The Economic Influence of the Motor Industry on the KZN Economy

KwaZulu-Natal and in particular the city of Durban has a significant automotive sector which contributes to the local economy and is tiered as the country's third centre in the hierarchy of automotive sector activity [6]. KwaZulu-Natal only has one OEM which is Toyota Motor Corporation which was established in the 1960's/70's in KwaZulu-Natal. Toyota employs an estimate of 7000 people and the usage of local content for their final product is about 50%. It is therefore a significant contributor to the local automotive sector.

The KwaZulu-Natal automotive sector has also seen provincial and local government taking a keen interest in its success. The evidence of this can be noted in the Durban Auto Cluster (DAC) which was formed in 2001. The DAC is a public private partnership which was formed as a section 21 company. It is supported by the Department of Trade and Industry, the provincial government and Ethekewini local government. There are approximately 43 firms representing 80% of the regional industry which belong to the cluster [9]. One of the key functions of the DAC is to provide a forum where buyers and suppliers interact and give participant firms the chance to share common technologies, labour pools and distribution channels [6].

The establishment of the DAC seems to have had a substantial impact on the local automotive sector. Since the establishment of the cluster in 2001 there has been significant growth in employment in the automotive sector. Unlike the national situation, where it was evident that employment in the automotive sector was deteriorating, in KwaZulu-Natal the automotive sector has grown by 17, 8% from 2001- 2006 in terms of employment [9]. It is estimated that real revenue growth of 36% was achieved among component manufacturers in the same period.

Thus the components manufacturers in KwaZulu-Natal have also significantly benefited from the formation of the cluster [9]. As per the KwaZulu-Natal Department of Transport, the components manufacturing industry in KwaZulu-Natal consists of approximately 100 firms which employ over 18 000 workers and contribute 1, 3% to the provincial GDP. It is estimated that motor vehicles produced in KwaZulu-Natal as well as parts manufacturing contributes approximately 3, 7% of total manufacturing output [9].

The Durban port operation is another key area through which the automotive sector contributes to the local economy. The Durban Car Terminal is the country's largest import and export facility for the motor industry. According to Transnet, the Durban Car Terminal handled 278 000 motor vehicles in 2005 and 389 681 in 2006 [9]. These are substantial volumes and therefore the effects of this economic activity passing through the port of Durban are substantial for the local economy. However as global demand and exports in the automotive sector slows down, this trade is likely to drop.

This has significant implications for the proposed Automotive Components Park that has been on the cards for KwaZulu-Natal since 2006. Many have argued that the automotive sector in KwaZulu-Natal is too focused and reliant on Toyota. Proposals have therefore been made to establish an Automotive Supplier Park in the South Durban Basin. This park would consist of a second OEM plus Toyota as well as component manufacturers. The OEM's that have been approached to participate in this venture are Volvo, Renault and Tata [10]. One must however analyse whether the current economic climate is conducive for establishing the Supplier Park. To answer this question one has to draw on the earlier argument that on a global scale, South Africa's automotive industry is insignificant when it comes to production and export levels. As South Africa does not have significant market power, it is susceptible to the moves of the big global parent companies [6].

The above argument suggests that the current economic climate is not conducive to establishing an automotive supplier park. Current market conditions in the industry are unpredictable and global production lines may be shifted. The Automotive Supplier Park still appears to be a good idea but the timing of its establishment has become the critical issue. One may consider it prudent to wait to see how the recession plays out [6].

Lastly, the KwaZulu-Natal economy is likely to suffer economic consequences as a result of the current downturn in the automotive industry. If the sector on a national level does not receive a positive response from the government to its appeal for help, then there are going to be negative consequences in the form of job losses and reduced disposable income for the local economy.

The South African Automotive Industry Crisis and its Implications

The crisis that faces the automotive industry is one that displays the economic consequences of a severe drop in demand. This is the result of a reduction in consumer's disposable income and unpredictability in the future permanent income of consumers. Therefore consumers have prolonged the purchasing of high value items like motor vehicles. This in turn has resulted in a decline in income for large automotive firms. The chain continues as a decline in demand for automotive components is also experienced. The bottom line of all this is that ultimately jobs is going to be lost. This yields further problems in the economy as disposable income is reduced [5].

The Automotive Industry Development Centre CEO, Barlow Manilal advises that the extent of the current global financial crisis will invariably lead to retrenchments and closure of smaller supplier plants in the automotive industry. It has become evident that the global economic slowdown has already led to job losses in the form of voluntary retrenchments. Production slowdowns have occurred at General Motors South Africa (GMSA) and the Ford Motor Company South Africa (FMCSA). Should the market not recover significantly, further job losses can be expected. Direct and indirect job losses will be incurred, but these will be preceded by reduced working hours in an attempt to keep losses to a minimum [5].

Volkswagen South Africa (VWSA) GM for communications Bill Stephens agrees that the years ahead are likely to be tough. Even though the company forecasts a 10% reduction in production volumes, it will continue its R3-billion, three-year investment programme at its Uitenhage plant. VWSA also anticipates a decline in its export market which is in line with the severe decline in global markets.

Denise Van Huyssteen GMSA and GM African Operations communications manager advises that the company's rationalization activities through 2008 have placed it in a strong position to compete in prevailing market conditions. Overall operational costs and employee numbers have been reduced. The company's focus

on high-volume runners has enabled it to increase its market share from 13, 4% in 2007, to 13, and 8% in 2008. She advises that a further drop in vehicle sales will place pressure on the company to reconsider its position [11]. Post-crisis statistics reveal the following:

- In March 2009 aggregate new vehicle sales were down on a year on year basis by an alarming 30, 3% and exports had registered a year on year decline of 22% [12]. This has been the worst sales levels recorded in the past six years.
- NAAMSA [12] estimates that 40 000 jobs have already been lost in the automotive sector and that 30 000 are still at risk.
- The job losses that have already taken place have affected all the major automotive firms such as General Motors SA and Ford.
- One of the largest components manufacturing companies “Kolbenco” has also already shut down. This

company was the last piston manufacturer based in South Africa. Tony Twine advises that there is the strong likelihood that more companies in the components industries will shut down as these are largely foreign owned companies [13]. In other words, if the global parents of these companies go under so will their South African operations.

- An analysis of statistics collected from the four major banking institutions in South Africa has revealed that the number of cars being repossessed monthly by financial institutions is reported to be between 5000-6000. Most of the defaulting customers earn below R15000 pm [13]. This clearly indicates that affordability of motor cars has become a major issue for a large proportion of South African households.
- The RMI (Retail Motor Industry Organisation) has indicated that 300 new and used dealerships closed down in 2008 [14]. This is a significant number of dealerships and a cause for concern as it is the retail side of the automotive industry that employs the largest volume of workers.

Arguments that Support and Oppose Government Intervention

Government intervention in the market economy has been an ardently debated concern from a global perspective since the consequences of the subprime crisis. The overseas automotive industry has possibly had a worse time of it. Many countries have already been beneficiaries of government bailouts. Therefore it is not unexpected that the South African automotive industry is calling for it [13].

The importance of the automotive industry to the South African and KZN economy has already been highlighted in this research. It has also been established that it is an industry in which many jobs will be lost if things continue as they are. Thus, if one is against government intervening then one is left with an industry that is in a real crisis. Writing off the motor industry would greatly affect South Africa's trade deficit. It is estimated that if South Africa were to stop exporting cars the country could run up a deficit of R200 billion. This in turn would weaken the rand which would further, increase the import bill [13]. If the motor industry is left to suffer it would have material macro-economic impacts that would not only be limited to employment loss.

According to an economist, Tony Twine, the province that would be most affected would be the Eastern Cape as this is where the major players in the South African Automotive Sector namely, Mercedes, General Motors, Volkswagen and Ford operate [13].

Despite knowing the likely consequences that will follow a collapse of the automotive industry, there are still many who are strongly opposed to government intervention and believe that the free market should be allowed to have its out workings. Many of these arguments are based on the view that the industry itself has been imprudent in its dealings leading up to this point. If one looks at the cyclical history of the motor industry one finds that there have always been peaks and troughs very much like the macro economy. However it is felt that this cyclical nature was largely ignored leading up to this current downturn and overconfidence in production [13].

Claims have been made that the industry has been making too many cars in relation to demand even during the peak of the demand for cars. From this perspective it may appear unwise for any government to assist an industry that is already producing an excess of products [13]. There are also others who are of the opinion that the motor industry itself has not done enough and are not doing enough to come up with inventive strategies with regards to pricing that may assist in increasing the demand for vehicles. Some are of the opinion that the market should allow for companies to go bankrupt so that all the inefficient operators are flushed out the system. In an ideal free market world this may be the soundest economic principle, however in a country such as South Africa where the country is already suffering from such high unemployment rates and where the government is embarking on an attempt of job creation, it may not be appropriate to let a large sector shed numerous jobs. The numerous trillions of dollars that have been given in aid by government has seen an end of free markets in their truest form thus the global financial crisis has highlighted the fact that the existence of a truly free market economy may be an elusive goal.

Further arguments have been made suggesting that singling out companies for state support has sent the wrong signal and undermined the government's ability to support the broader economy. Many also share the opinion that companies should not require government loans if their credit markets had not deteriorated up to

the same level as in some developed countries [15]. This being said, one cannot escape the reality that components companies are battling to get finance, car sales have dropped and a considerable number of jobs are on the line.

There are also those that question the actual impact and successfulness that government intervention can in fact have. This argument is based on the premise that the current crisis of a fall in spending is not the cause but the symptom of the problem the world is facing [15]. Therefore it is argued that it does not make sense that the government should step in to make up the spending deficit, but rather to let the economy correct itself be it through reduced demand and a correction of prices. This is very much in line with free market thinking. In the 1970's and 80's, one saw the revival of fiscal policy as a counter cyclical tool, especially in the United States where it became known as "priming the pump" [15] However during this time period a new consensus was reached that fiscal policy was largely ineffective and could at times be damaging.

According to Carling [15] the main criticisms of counter fiscal policy are based on the five points below:

- Often, the timing of the policy action went wrong and the lags are such that by the time a stimulus package has an influence, the need may have passed. History has suggested that policy makers will keep stimulating for too long.
- Counter fiscal policy is actually meant to be a temporary stimulatory measure that typically becomes entrenched and enlarges the role of government. Higher government spending remains and taxes are increased when stimulus is withdrawn.
- Stimulatory measures may regularly distort resource allocation and impose lasting economic inefficiency costs.
- Stimulus measures do not have the recurring benefits often attributed to them. Temporary or once-off bailouts fail to stimulate consumer spending because households are directed more by notions of their permanent income and wealth.
- Increased government spending crowds out the private sector in several ways. Carling [15] also emphasises that the global financial crisis has been as a direct result of a collapse in private sector confidence which fiscal stimulus on its own will not restore. Fiscal policy may fail to stimulate aggregate demand because the private sector which is guided by rational expectations discounts the future tax burden required to service and repay the increased public sector debt. The private sector will therefore act on its expectations of lower future disposable income due to increased tax burdens and wealth by reducing its demand for goods and services. Government should not be seen as the rescuer of the private sector, as at most fiscal policy can dampen the effects of a recession [15]. However the ability of fiscal spending to get a sector or the economy out of a recession is debatable.

Support for the Industry

The South African automotive industry has been adversely affected by the recent global economic recession and credit crunch. This has had a negative impact on role players within the automotive industry. Companies within the motor industry have downsized, a number of them have closed down whilst other dealerships are operating on a four day week [5]. In addition, because of the current global environment, this research explores Maxton and Wormald's message that the automotive industry is at the edge of another potentially great change, the possibility of a 'fourth automotive revolution' [1]. The South African automotive industry appears to be quite mature with well-established role players. From a supply chain perspective, the issues that OEMs face can be categorised into Macro and Micro issues. These include the following:

- The geographic location of suppliers.
- Supplier sustainability.
- The absence of a local supplier base
- The cost of using South African ports.
- Decline or reduction of core suppliers.
- Interconnectivity with regards to MRPs and
- Delivery commitments [6].

It appears that the industry is ready for a fourth major change as mentioned earlier. Whilst OEMs struggle globally to maintain their share in this shrinking market, measures are needed to restore confidence among consumers. This research further explores the possibility that the automotive industry in South Africa and abroad is ready for a model change, namely the 'Fourth Automotive Revolution' [1].

Maxton and Wormald [1] state that the automotive industry is both an important and complex sector, as businesses within the industry are closely linked to the manufacture of a wide range of components and the extraction of raw materials. Therefore the industry ranks significantly in business and remains vitally important despite the global economic crisis and credit crunch. The South African automotive industry is experiencing many challenges because of numerous pressures. These pressures include among others:

- Decline 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 [5].

Research Methodology

The researcher, in the previous chapter provided a literature review. In this chapter, the researcher discusses the research design, the target population, the sample size and sampling strategy, the data collection instrument and methods, the pilot study, steps that were taken to eliminate biasness and to ensure the validity and the reliability of this research, the ethical considerations employed in this research and the limitations of this research.

The Research Philosophy

This research is explanatory and descriptive in nature. Explanatory research is research conducted in order to explain any behaviour in the market [16]. The market relevant to this study is the South African automotive industry. This research therefore aims to examine and explain the effects of the global economic crisis on the South African Automotive industry. Explanatory research is achieved through the use of research strategies involving the use of questionnaires, group discussions, interviews and random sampling. Descriptive research which is also called statistical research refers to the exploration of existing phenomena [16] The main goal of this type of research is to describe the data and the characteristics about what is being studied. It is based on the quantitative research philosophy and uses research strategies that may involve the use of surveys and panels in its quest to provide an outcome.

A positivist research approach was adopted. A research design using quantitative factors was utilized. Burns

and Grove [17] define quantitative research as a formal, objective and systematic process used to describe and test relationships and to examine the cause and effect interactions among variables. Quantitative research therefore involves questioning people in a structured way, in order to obtain their opinions so that one can produce hard facts and statistics in order to make findings, provide guidance and direction and make recommendations.

Target Population

According to Burns and Grove [17] a population is defined as all elements (individuals, objects and events) that meet the sample criteria for inclusion in a study. A population is thus the full group of potential participants to whom the researcher wants to generalize the findings of the study. The target population in this research consisted of managers in 10 Franchise Automotive Dealerships that are based in KwaZulu Natal, namely Mercedes Benz, Subaru, Chrysler, Jeep, Dodge, Freightliner, Fiat, Alpha Romeo, GWM and Mitsubishi Motors.

Limitations of the Research

The following limitations of the study were identified:

- The study encompassed only 10 dealerships across KwaZulu-Natal.
- The study was limited to dealerships that form part of the NMI Durban South Motors (Pty) Ltd group, which is a subsidiary company of Barloworld South Africa (Pty) Ltd.
- The study was limited to management staff only.
- No follow up could be undertaken to determine why certain questions were not answered.

Interpretation and Discussion

The researcher, in the previous chapter discussed the research methodology. In this chapter, the researcher interprets and evaluates the data that has been collected and critically discusses the findings pertaining to the effects of the global economic and financial crisis on the South African automotive industry. The researcher has used theory from chapter two of the literature review as well as new theoretical arguments to justify the findings of this research. The results of each table or figure has been analyzed and discussed in detail in order to provide a reasoned, justifiable and logical interpretation of the findings of this study.

Rating and Ranking Average Calculations

The following question types make use of an average or weighted average calculation:

- Rating Scale
- Ranking
- Numerical Textboxes

In this research the researcher has opted for the Rating Scale Method. Rating Scale questions calculate a weighted average based on the weight assigned to each answer choice/alternative. The rating average is calculated through the use of the following formula:

w = weight of answer choice

x = response count for answer choice/alternative

$$x_1w_1 + x_2w_2 + x_3w_3 \dots x_nw_n$$

Total no of respondents (www.surveymonkey.com)

The example below explains the way in which the rating scale method was applied in this research. In the example below, the researcher has uses a 5-point rating scale question. The weight (w) assigned to each answer choices/ alternative is shown in parentheses:

Question: Responsibilities are shared fairly among your team members.

Answer Choices/alternatives:-

Strongly Disagree (1)

Disagree (2)

Neither Agree nor Disagree (3)

Agree (4)

Strongly Agree (5)

The first alternative provided is given a weighting of one (1). The second alternative is given a weighting of two (2). Thus the weight given to each consecutive alternative is successively increased by a weight of one (1). The first alternative given to each question has the least influence on the factor being investigated or it is the most negative response that the respondents could have chosen. Each successive response becomes increasingly positive and therefore has a greater influence on the factor being investigated. With an increasing influence of the factor being investigated, comes an increasing weight value. Thus when the formula is applied and the average rating is calculated, the lower the value of the average rating, the less influential is the factor being investigated. Conversely, the higher the average rating value calculated, the more influential and the greater the impact of the factor being investigated. After collecting responses to the survey, the analysis of the results will look similar to the example provided in the table below:

	Strongly Disagree	Disagree	Neither nor Disagree	Agree	Agree	Strongly Agree	Total	Average Rating
Responsibilities are shared fairly among your team members.	20.45% 9	27.27% 12	20.45% 9		11.36% 5	20.45% 9	44	2.84

The average rating of 2.84 indicates that the average sentiment among respondents is that responsibilities are not shared fairly among their team members. The average rating was calculated as follows:

$$(9*1) + (12*2) + (9*3) + (5*4) + (9*5)$$

$$44$$

$$125/44 = 2.84$$

In the analysis and interpretation of the findings to follow, the researcher has arranged the average ratings of the responses to the questions in the questionnaire in ascending order. The researcher has also aligned the research findings to the objectives of the research discussed in chapter one.

Analysis and Interpretation of the Findings

Structural Changes in the Automotive Industry over the last Century

There have been three major changes that affected the automotive industry during the last century [1]. Each change allowed for a leap forward in productivity and cost. Each of these changes was therefore a revolution where the manufacturer that brought about the change had benefited immensely from it. As a result of each revolution or change, the rules of the game had shifted. The competitive equilibrium in the industry was

upset and overtook the manufacturer who initiated the change. These changes were initiated ahead of the manufacturers less enlightened and innovative competitors. These movements are indicated in figure 1 below.

From an analysis of figure 1 above, it becomes evident that the first major change originated through the work of Henry Ford. He applied mass production techniques which resulted in the total standardisation of the product thereby overtaking all his craft-based competitors. Table 1 below rates the major international changes that occurred in the automotive industry during the last century in terms of their effectiveness. An analysis of Table 1 above revealed that 29.41% of the respondents felt that Henry Ford's mass production techniques were effective while 41.18% rated his techniques as very effective. The average rating of 3.91 indicates that the average sentiment among respondents was that Henry Ford effectively surpassed all his craft-based competitors by applying mass production techniques resulting in the total standardisation of the product.

The second change was initiated by Sloan. Sloan moved past Ford's model by emphasising on divisionalisation and reintroducing a controlled level of customization. 45.16% of the respondents felt that Sloan's customisation and divisionalisation techniques had an average effect on the automotive industry while 41.94% rated his techniques as effective. Only 9.68% of the respondents felt that his techniques were very effective. The average rating of 3.55 indicates that the average sentiment among respondents was that Sloan's emphasis on customisation and divisionalisation was between average and effective in terms of structural change in the automotive industry.

Then the third step of the revolution materialised when Toyota overtook their competitors by using lean production processes and introducing a focus on customized mass production. 31.25% of the respondents felt that Toyota effectively surpassed their competitors by utilising the above techniques while 53.13% rated Toyota's techniques as very effective. The average rating of 4.22 indicates that the average sentiment among respondents was that Toyota's lean production and customised mass production techniques were highly effective.

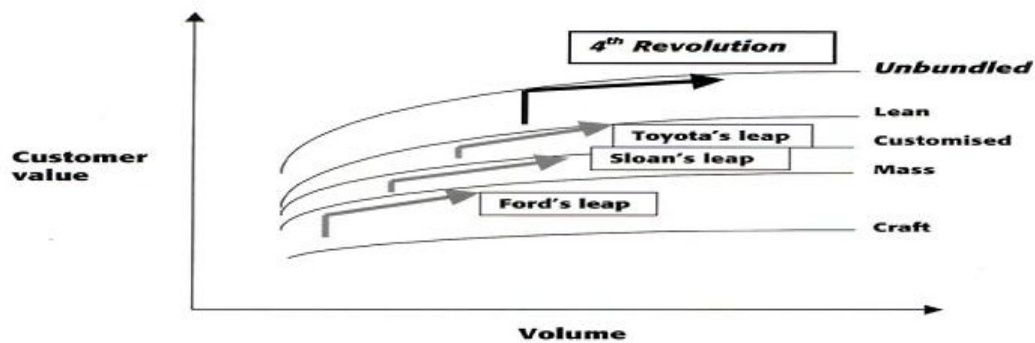


Fig. 1: The major automotive revolutions

Source: Maxton and Wormald [1]

Table 2: Major international changes that occurred in the automotive industry during the last century in terms of their effectiveness



Maxton and Wormald [1] propose a fourth major change where the motor industry takes an entirely different

look at their businesses by redefining along new and more economically attractive lines. The industry needs to unbundle and rebuild itself in an attempt to achieve an optimum balance between economies of scale and variety at each stage of the supply chain as was done in the past and is evident from the above analysis. These economies of scale can be achieved from raw materials through the OEM to the distributor, to the service garage and in due course recycling.

As changes are required by the main role players to survive, the current state of the global automotive industry is undergoing a shift [18]. This change is not only required in the way business is conducted but also in terms of the industry's product offering to global markets.

The Scope of Supply Chain Management in the South African Automotive Industry

Hugo, Badenhorst-Weiss and van Biljon [19] indicate that supply chain management is an integrative approach that considers both the inbound (upstream) and outbound (downstream) flow of materials in business. Distribution management includes the management of downstream processes and activities that deliver the product or service to the end customer.

Michael Porter's value chain analysis divides a business into nine value-creating and strategic activities in either primary and support activities [20] (see figure 2 below).

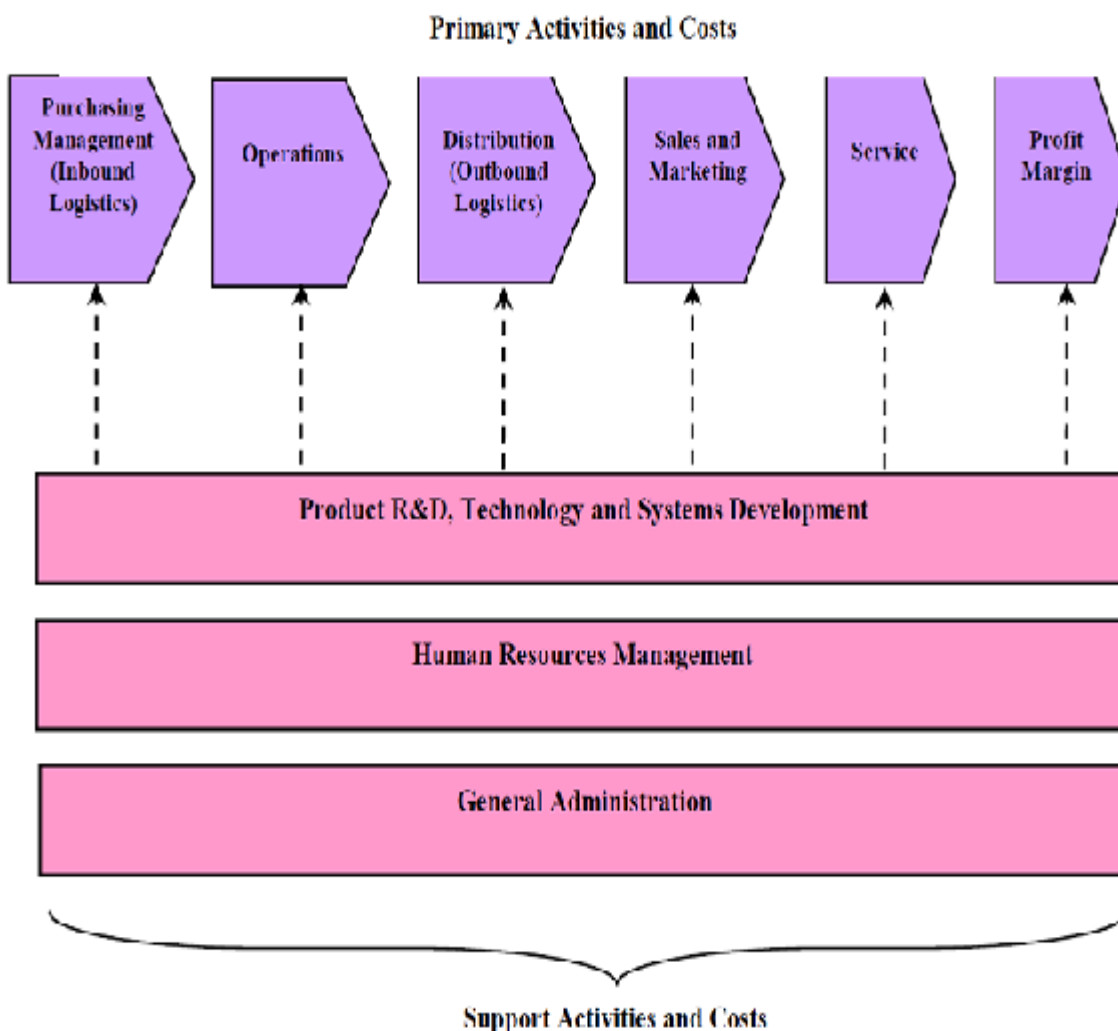


Fig. 2: Porter's Value Chain

Source: Adapted from Thompson, [21]

Primary activities include those activities in a business that are focused on the physical formation of the

product including marketing, transfer to the buyer and the provision of after-sale support. The goal of primary activities is to increase profitability by creating value that exceeds the cost of these activities. Support activities in a business are seen as non-value creating. The goal of these activities is to assist the business as a whole. Support activities provide the inputs that allow the primary activities that create competitive advantage to take place on a continuing basis [20,22].

Table 2 below examines what level of influence Human Resources Management, Sales and Marketing, Purchasing Management and Primary Activities and Costs have on the scope of supply chain management when considering inbound logistics.

From an analysis of table 2 above it was evident that the respondents shared the view that all of the above factors had a considerable influence on the supply chain when considering inbound logistics. The average ratings for all factors under investigation were around 3. From the data obtained it is clear that primary activities and costs is the most influential factor and human resource management is the least influential factor in terms of supply chain management and inbound logistics.

Table 3: Influence Human Resources Management, Sales and Marketing, Purchasing Management and Primary Activities and Costs have on the scope of supply chain management when considering inbound logistics

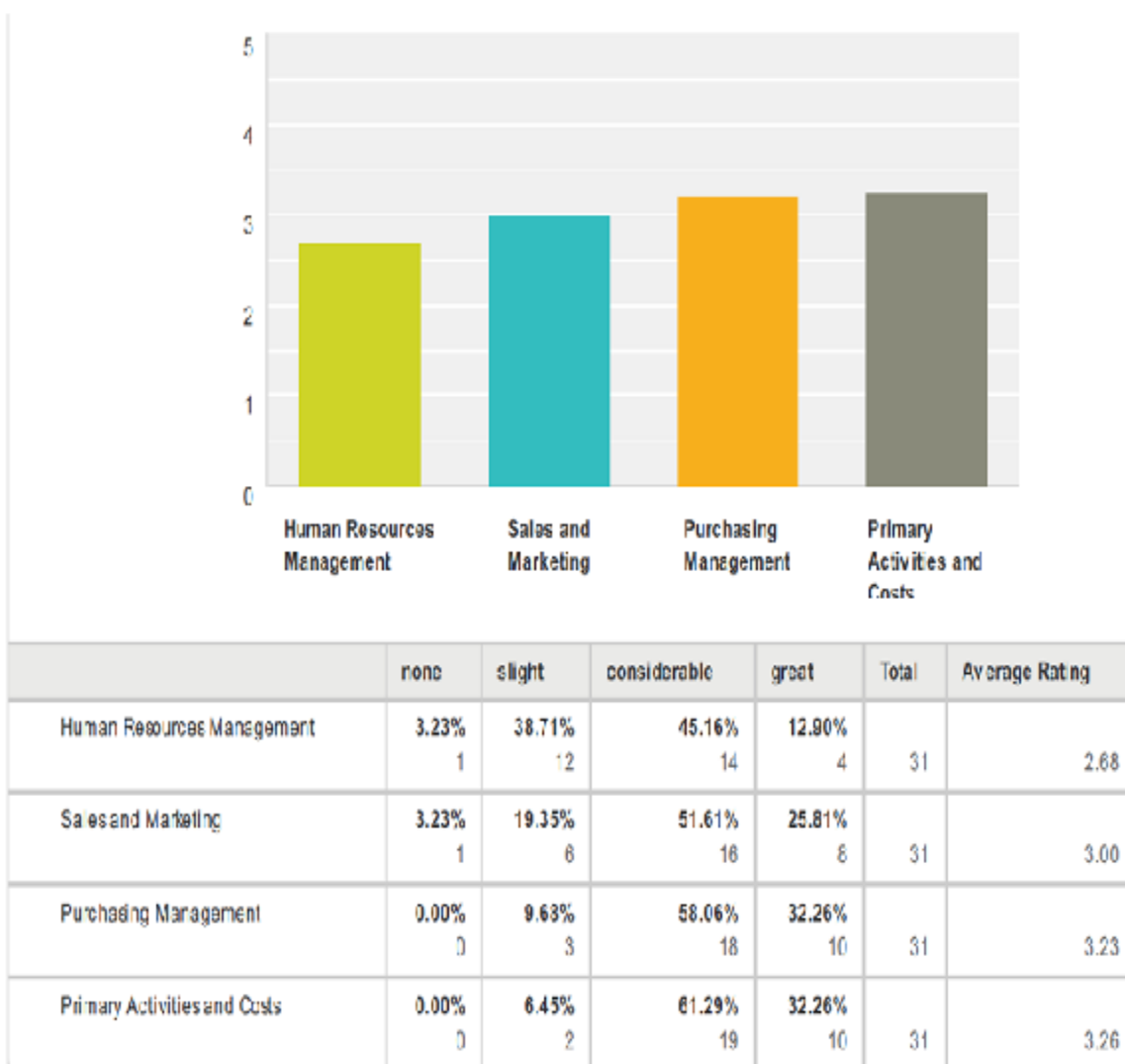
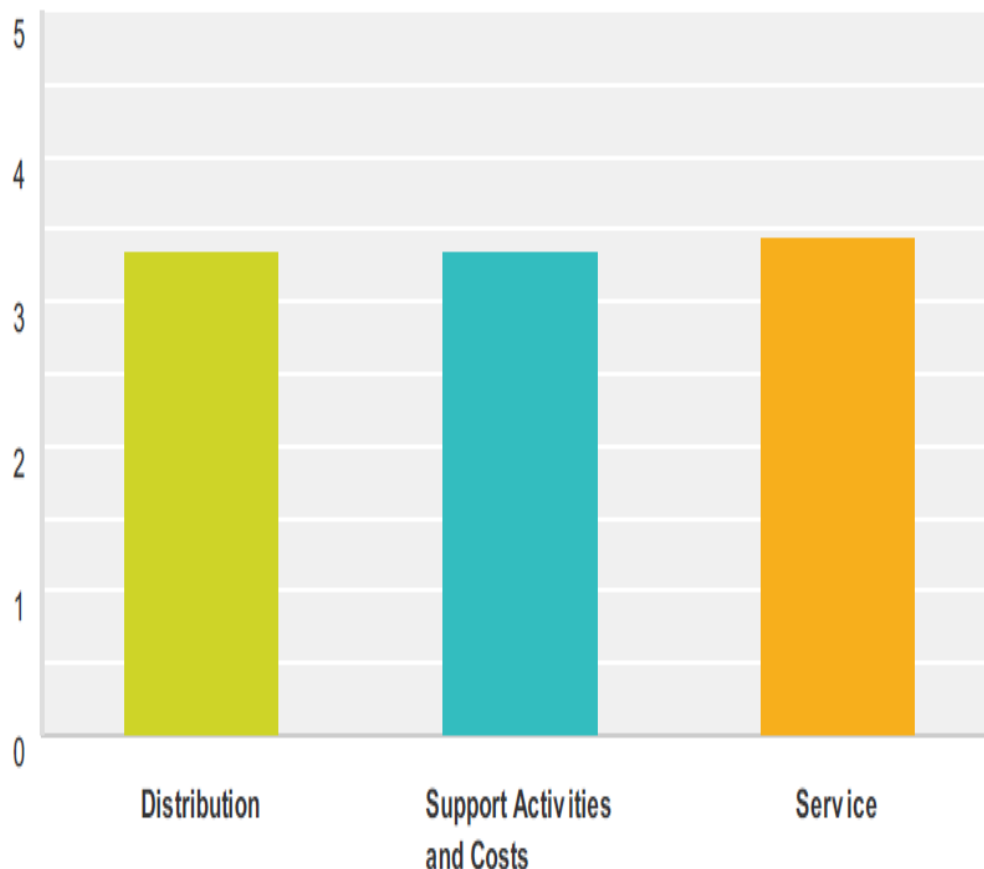


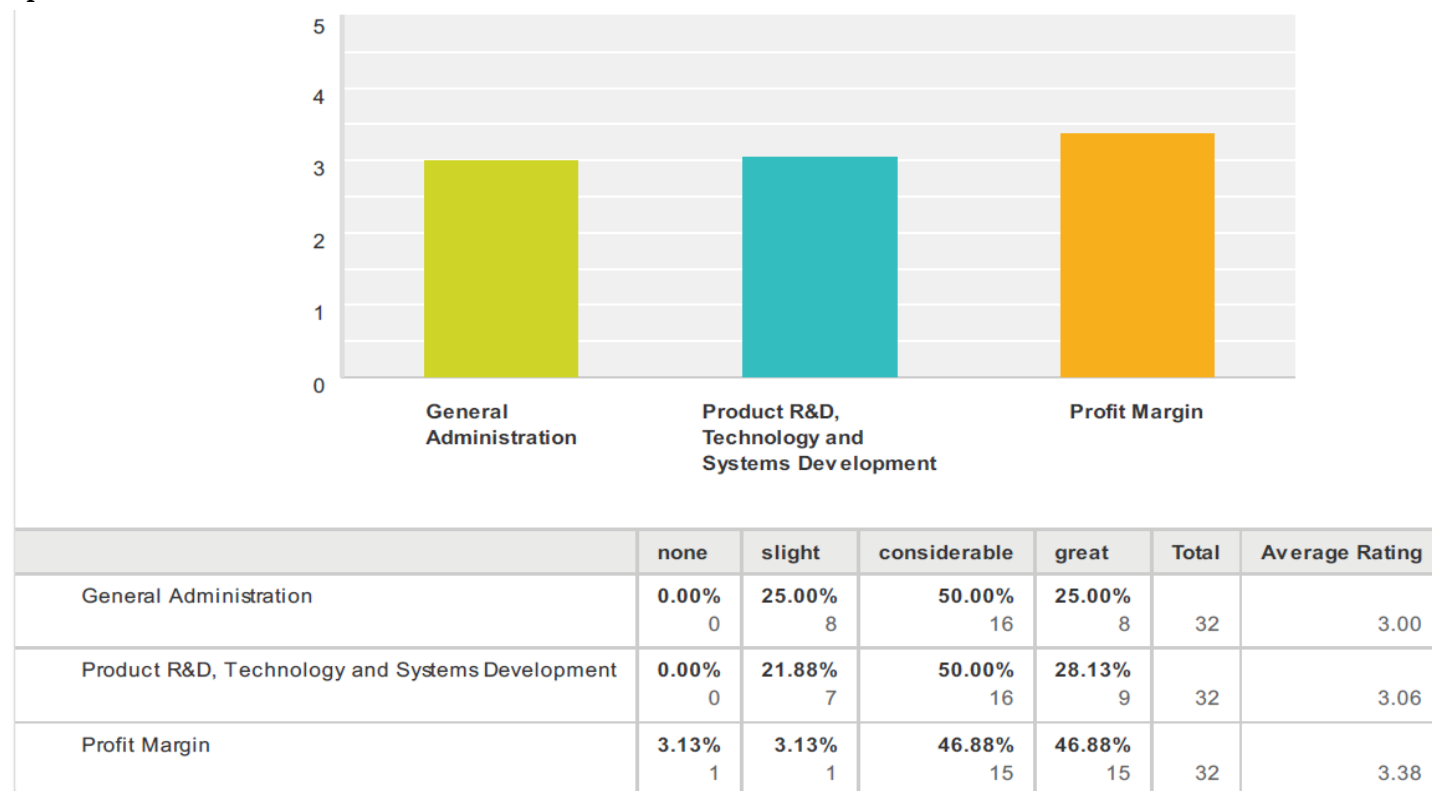
Table 4: Below examines what level of influence Distribution, Service and Support Activities and costs have on the scope of supply chain management when considering outbound logistics.



	none	slight	considerable	great	Total	Average Rating
Distribution	0.00% 0	6.90% 2	51.72% 15	41.38% 12	29	3.34
Support Activities and Costs	0.00% 0	6.90% 2	51.72% 15	41.38% 12	29	3.34
Service	0.00% 0	3.45% 1	48.28% 14	48.28% 14	29	3.45

From an analysis of table 3 above it was evident that the respondent's opinions were split between that of considerable and great influence in terms of the effects of the above factors on supply chain management when considering out bound logistics. The average ratings of 3.34 to 3.45 confirmed the above as well.

Table 5: Examines what level of influence General Administration, Product R and D, Technology and Systems Development and Profit Margin have on the scope of supply chain management when considering operations.



50 % of the respondent’s agreed that General Administration, Product R and D, Technology and Systems Development had a considerable influence on the supply chain when considering operations. The average ratings of 3.00 to 3.06 confirmed the above as well. In terms of Profit Margin, the respondent’s opinions were split between that of considerable and great influence in terms of the effects of Profit Margin on the supply chain when considering operations (46.88% each with an average rating of 3.38).

The above findings support the assertions by Pearce et al. [22] that in order to sustain a competitive advantage in the automotive industry, inbound logistics, operations and outbound logistics are essential.

Effects of the Global Recession on the Supply Chain of the South African Automotive Industry

Sochi-Levi, Kaminsky and Sochi-Levi [23] state that supply chain management is a series of approaches used to efficiently integrate suppliers, manufacturers, warehouses and stores. This will guarantee that goods are manufactured and distributed at the right quantities, to the right place, at the right time and cost, in order to minimise system wide costs while satisfying service level requirements. In terms of the above definition of supply chain management, supply chain management in the manufacturing of motor vehicles involves the integration of activities that take place among a network of facilities that purchase the inputs needed on each level of the supply chain, and transform them into finished automotive products that are delivered to customers through a dealership.

Macro Issues

- Lack of Local Core Supplier Base

40.63% of participants agreed that there were deficiencies within the local supplier base while 37.5% strongly agreed. The average rating of 4.13 means that majority of the respondents agreed that the Lack of Core Supplier Base is a major concern. Currently OEMs need to import too many of their parts requirements. These deficiencies relate to the component manufacturers’ lack of technology, global supply capability and cost

competitiveness. The problem herein is that parts are imported, used to manufacture motor cars and then a significant percentage of locally manufactured vehicles are exported. The result thereof is additional cost. When dealing with international suppliers some problems besides that of additional cost are (1) communication

(language); (2) an increase in transit time; (3) dealing with corrupt port authorities in certain countries; and (4)

the poor interior road infrastructure of certain countries [6]. This means that OEMs have to allow for increased

packaging in order to protect parts which again translate into increased costs.

Table 6: Analyses the main supply chain issues faced by OEMs categorized into Macro and Micro issues.



▪ **Geographic Location of Suppliers**

Core suppliers to OEMs within South Africa are spread across the country i.e. Port Elizabeth, Eastern Cape, Gauteng and KwaZulu-Natal. Ideally suppliers should be located around OEMs' assembly plants as it would be easier to manage the supply chains of OEMs. However, OEMs cannot expect their core suppliers to set up small plants all over South Africa adjacent to the OEM's as this would affect their viability. As a result, in terms of the logistics supply chain, OEMs in South Africa have to increase their stock holdings which impacts on overall costs. A longer supply chain also impacts on time compression, costs and the JIT process. Therefore a strong 61.29% of participants agreed that the Geographic Location of Suppliers was a major concern while 22.58% strongly agreed. The average rating of 4.06 show that the majority of the respondents agreed that the above issues pose a major concern.

▪ **Cost of South Africa's Ports**

South Africa's ports are considered to be the most expensive in the world. High port costs and cargo dues are levied to all vessels which dock in the ports of South Africa. This has been confirmed in an international port benchmarking study undertaken by the Automotive Industry Development Centre and the Technical Action

Group Logistics (Demont, 2007:5). The results of the research conducted by this task group revealed that (1)

South Africa's SAPO and NPA container tariffs are exceeded only by the North American Port Authority; and (2) South Africa is the only country where ports still charge cargo dues, adding additional cost to imported goods [24]. These issues impact on a company's competitiveness and increase the costs to import and export goods. Hence 40.63% of respondents strongly agreed that the Costs of South Africa's Ports poses a major supply chain issue to the South African automotive industry while a further 28.13% agreed to this notion. The average rating of 4.00 means that majority of the respondents agreed that the above issue poses a major concern.

Micro Issues

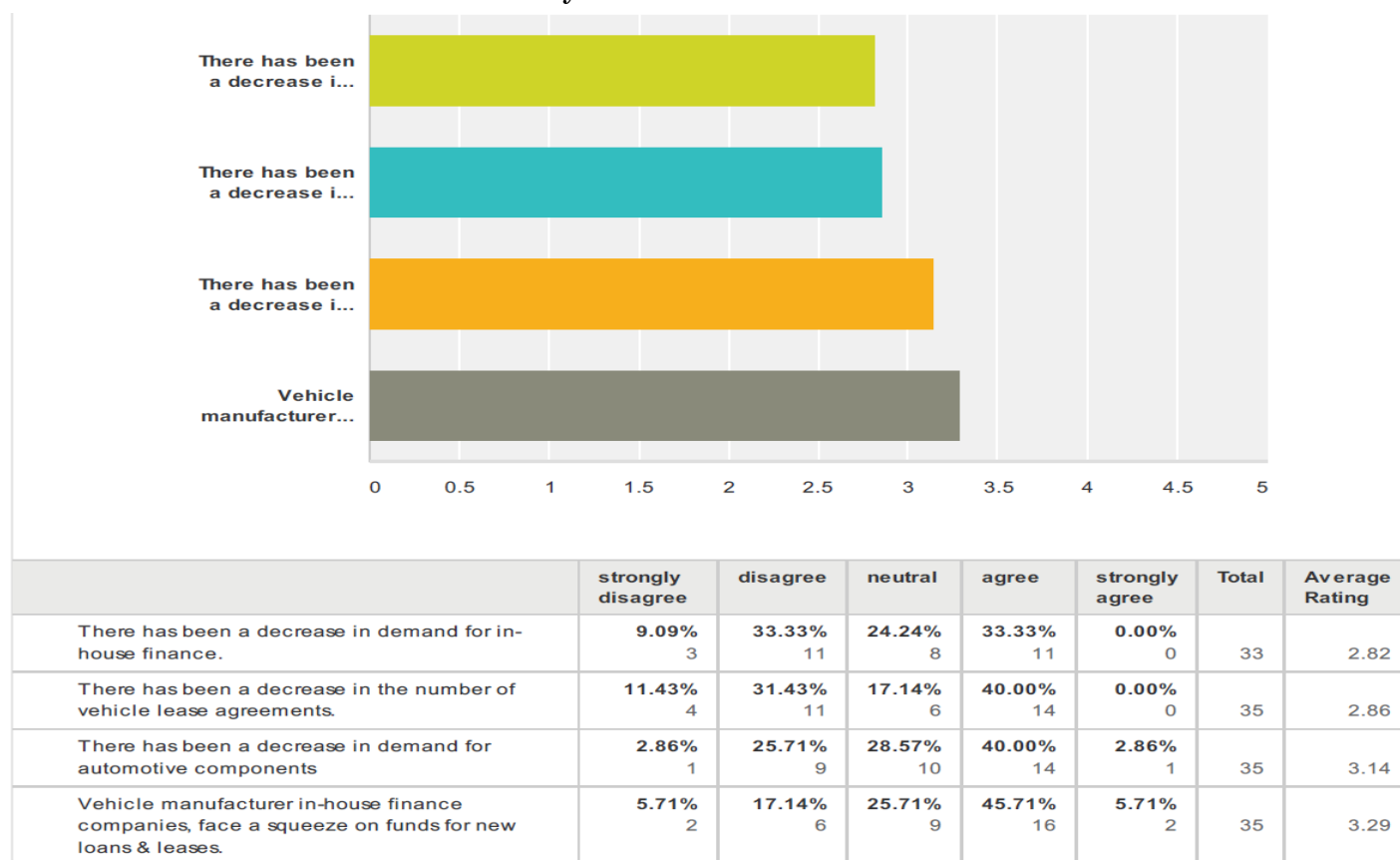
▪ Supplier Sustainability

Maxton and Wormald [1] observe that the financial viability of a supplier is vital to automotive manufacturers. An OEM being let down by a bankrupted supplier can bring the production system to a standstill. In terms of Supplier Sustainability, the respondent's opinions were split between that of agree and strongly agree (40.63% each with an average rating of 4.22). The above findings acknowledged that the sustainability of a core supplier is important in that the core supplier is a viable business and the business must survive into the future. Should a supplier become insolvent this would in the short-term impact on the production of motor cars whilst an alternate supplier is found.

▪ Delivery Commitments

Another issue identified by participants was that of suppliers not meeting delivery commitments. 43.75% of participants agreed that Delivery Commitments were not met while 34.38% strongly agreed. The average rating of 4.06 means that majority of the respondents agreed that Delivery Commitments is a major concern. Some of the causes identified by participants among others were suppliers not shipping to releases, delays in shipping and in rail transport, delays in off-loading of vessels, port delays, and road delays.

Table 7: Analyses the effects that the global economic and financial crisis has had on the supplier industries to the South African automotive industry?



33.33% of the respondents agreed that there has been a decrease in demand for in house finance while

33.33% disagreed. 40% of the respondents agreed that there has been a decrease in the number of vehicle lease agreements while 31.43% were in disagreement. 40% of the respondents also agreed that there has been a decrease in demand for automotive components. Finally, 45.71% of the respondents agreed that vehicle manufacturer in-house finance face a squeeze on funds for new loans and leases. The average rating of 2.82 to 3.29 for all responses received show that most of the respondents were either neutral or unsure of their response resulting in guessing between agree and disagree. The above findings are therefore inconclusive and illustrate that whilst some of the Finance and Insurance Departments as well as Parts or Automotive Component divisions within the dealerships are still struggling, others appear to be showing an improvement. This could be attributed to the viability and appeal of the different models and makes of vehicles.

The South African Automotive Industry Crisis and its Implications

As discussed in the literature review, the crisis that faced the automotive industry during the recessionary period was one that displayed the economic consequences of a severe drop in demand.

45.16 % of the respondents agreed that the current crisis that faces the South African automotive industry is that of a severe drop in demand. In terms of the findings relating to the decline in turnover experienced by large automotive firms and automotive components sectors, 35.48% agreed with this notion. A further 35.48% strongly agreed that this situation is still being experienced in the South African automotive industry. As explained in the literature review, when there is a decline in the income of large automotive firms, the corresponding effect is that there is also a decline in demand for automotive components. 50% of the respondents agreed that there has been a reduction in consumer’s disposable income while 40.63% strongly agreed with the above notion. The above findings are in line with the literature review. The average rating of 4.25 demonstrates that the reduction in the disposable incomes of consumers was the factor that was having the greatest adverse effect on the South African automotive industry.

Table 8: analyses the current status of the crises being experienced in the South African automotive industry.

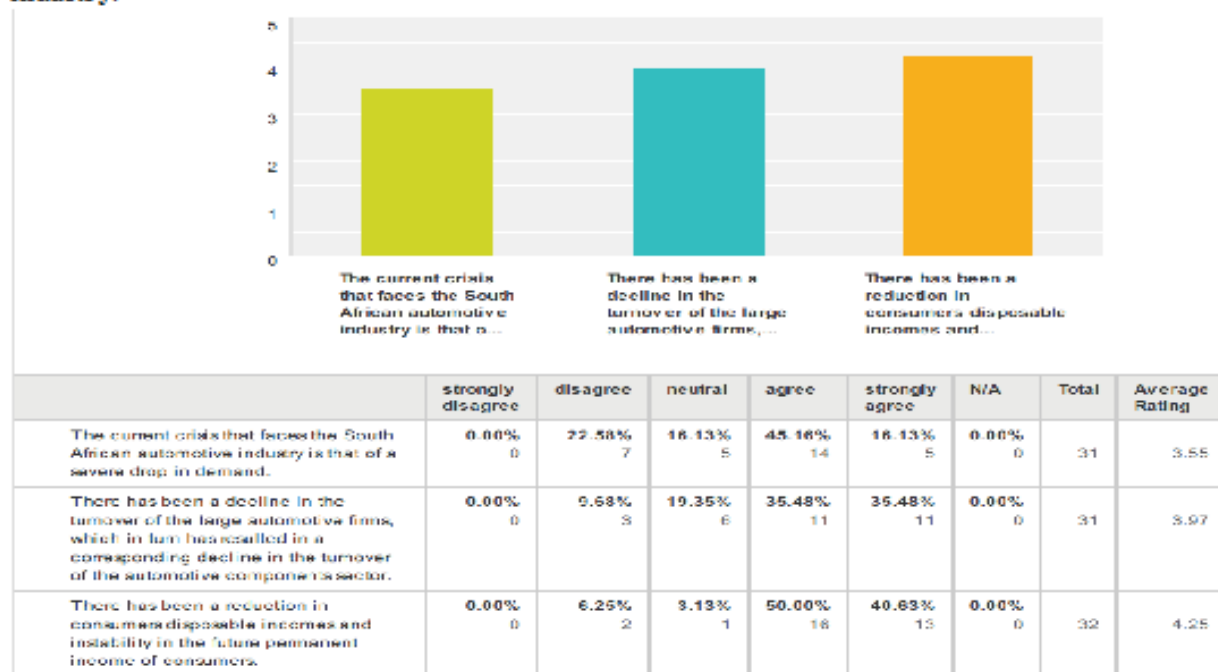


Table 9: Analyses what implications the global economic and financial crisis has had on the South African automotive industry.



The reduction in consumer’s disposable income and the unpredictability of the future permanent income of consumers (analyzed in table 7), has resulted in consumers prolonging the purchasing of high value items like motor vehicles. 58.84% of respondents agreed with this notion resulting an average rating of 3.61 which shows majority agreement. As discussed in the literature review, direct and indirect job losses will be incurred as a result of the global recession [5]. 61.29% of respondents agreed that job losses have indeed occurred in the automotive sector which has affected all major automotive firms. The average rating of 3.97 further illustrates a strong agreement to the above notion.

The Economic Influence of the Motor Industry on the South African Economy

The MIDP has had a noticeable impact on the automotive sector in South Africa and it is a significant employer in the economy. However there are some who argue that there is a case to be made whereby the automotive sector is a stagnating market and that the MIDP has done the sector and the South African consumers an injustice.

The major issue that is often raised as an argument against the success of the MIDP is that it has resulted in an automotive industry that is inefficient and a high cost producer on an international level [10]. David Powel’s, the Managing Director of Volkswagen, has stated that South Africa’s high cost manufacturing base has been a direct result of the MIDP and history suggests that South Africa’s production costs are 20% higher than in Europe and 40% higher than in China and India [10]. 46.88% of the respondents agreed with the above arguments.

Many critics are challenging the South African automotive industry to diversify its markets away from its reliance on the European and US markets. The markets which South Africa enters are not determined by local manufacturers, but are generally controlled centrally as a result of single sourcing and global planning practices of multinational manufacturers. In terms of the findings relating to the above notion, 34.38% remained neutral. A further 34.38% agreed with the above argument.

Table 10: Analyses what economic impact the automotive industry has on the economy of South Africa.



The South African automotive industry is a small player on the global front and this makes its operations vulnerable to the whims of its global parent companies. A strong 50% of respondents agreed with the above notion while a further 28.13% strongly agreed. South Africa needs to enhance its global competitiveness rating, improve on quality and plant efficiencies and considerably improve its logistics capabilities. 31.25% of respondents agreed with this notion with an average rating of 4.09 reflecting majority agreement. A further 46.88% strongly agreed with the above argument which indicates that strong emphasis on the above factors is required to enhance the global image and activities of the industry.

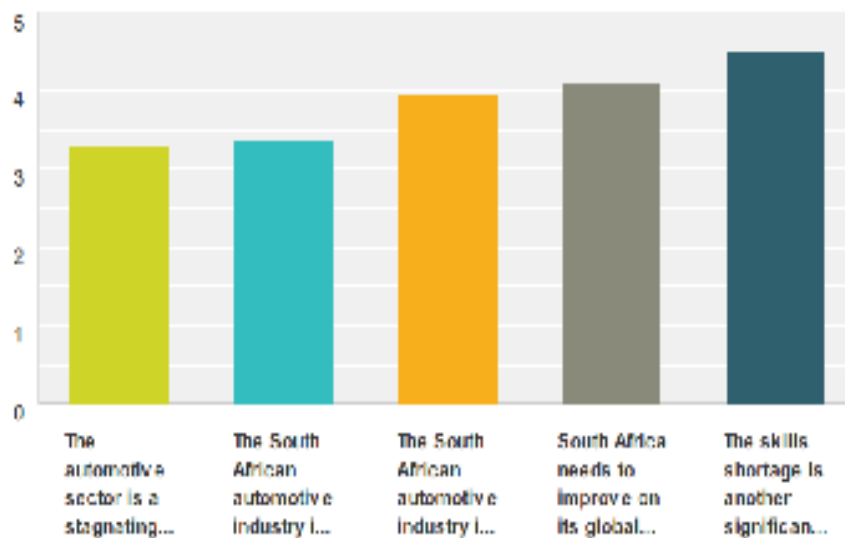
South Africa is currently producing less than 1% of global demand. This is due to the skills shortage in the country which is another significant problem and one that appears to be worsening. 37.50% of the respondents agreed with this notion and a further 56.25% strongly agreed with the above argument. Thus the skills shortage is having a major negative impact on the South African automotive industry.

Arguments that Support and Oppose Government Intervention and the Provision of Government

Bailouts

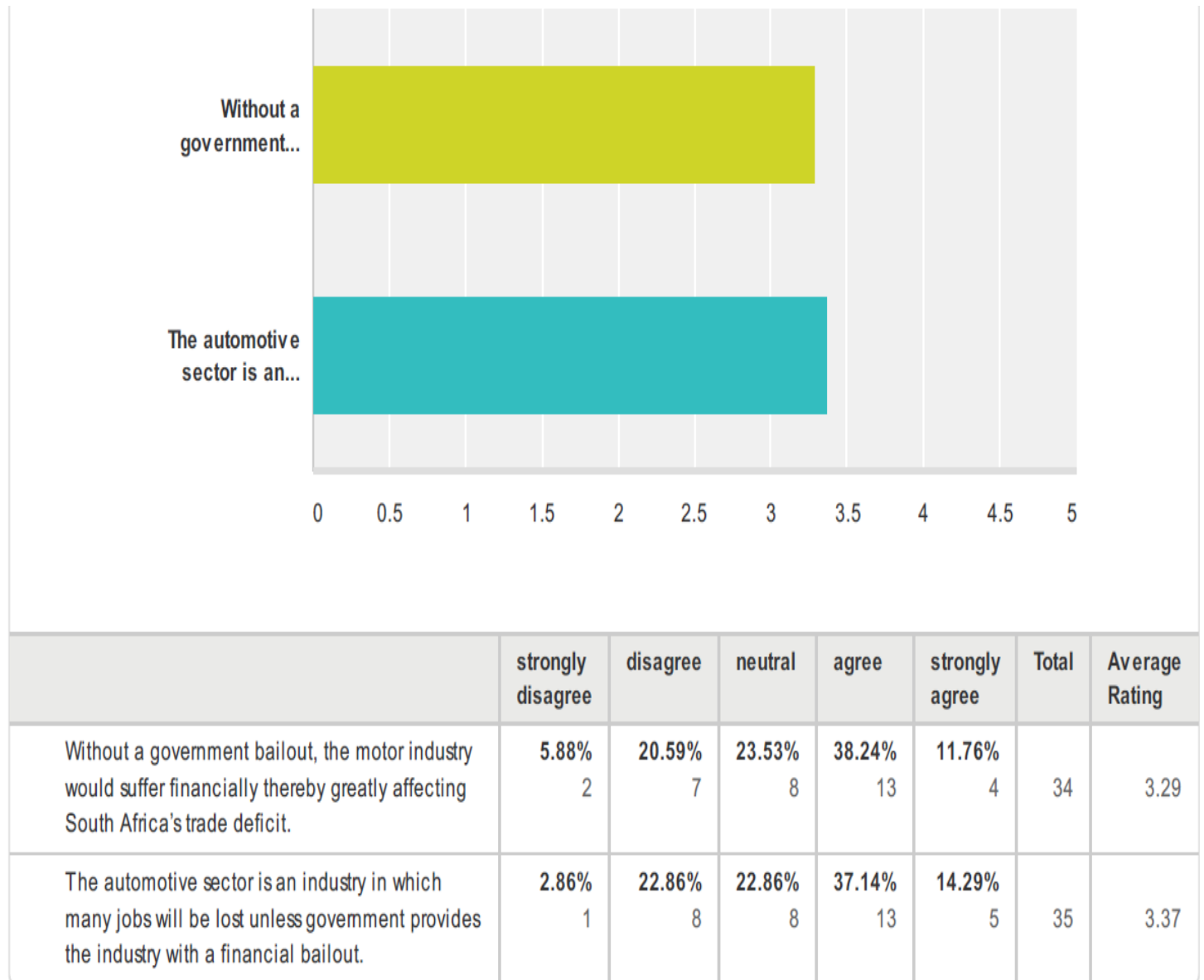
The importance of the automotive industry to the South African economy has already been highlighted in this research.

Table 10: Analyses what economic impact the automotive industry has on the economy of South Africa.



	strongly disagree	disagree	neutral	agree	strongly agree	Total	Average Rating
The automotive sector is a stagnating sector that is inefficient and a high cost producer on an international scale.	6.25% 2	21.88% 7	15.63% 5	46.88% 15	9.38% 3	32	3.31
The South African automotive industry is being challenged by critics to diversify its markets away from its reliance on the European and US markets	6.25% 2	12.50% 4	34.38% 11	24.38% 11	12.50% 4	32	3.34
The South African automotive industry is a small player on the global front and this makes its operations vulnerable to the whims of its global parent companies.	3.13% 1	6.25% 2	12.50% 4	50.00% 16	28.13% 9	32	3.94
South Africa needs to improve on its global competitiveness, on quality and plant efficiencies and its logistical capabilities	3.13% 1	9.38% 3	9.38% 3	21.25% 10	46.88% 15	32	4.08
The skills shortage is another significant problem and one that seems to be getting worse.	0.00% 0	0.00% 0	6.25% 2	37.50% 12	56.25% 18	32	4.50

Table 11: Analyses the arguments in support of government providing a financial bailout to assist the South African automotive industry.



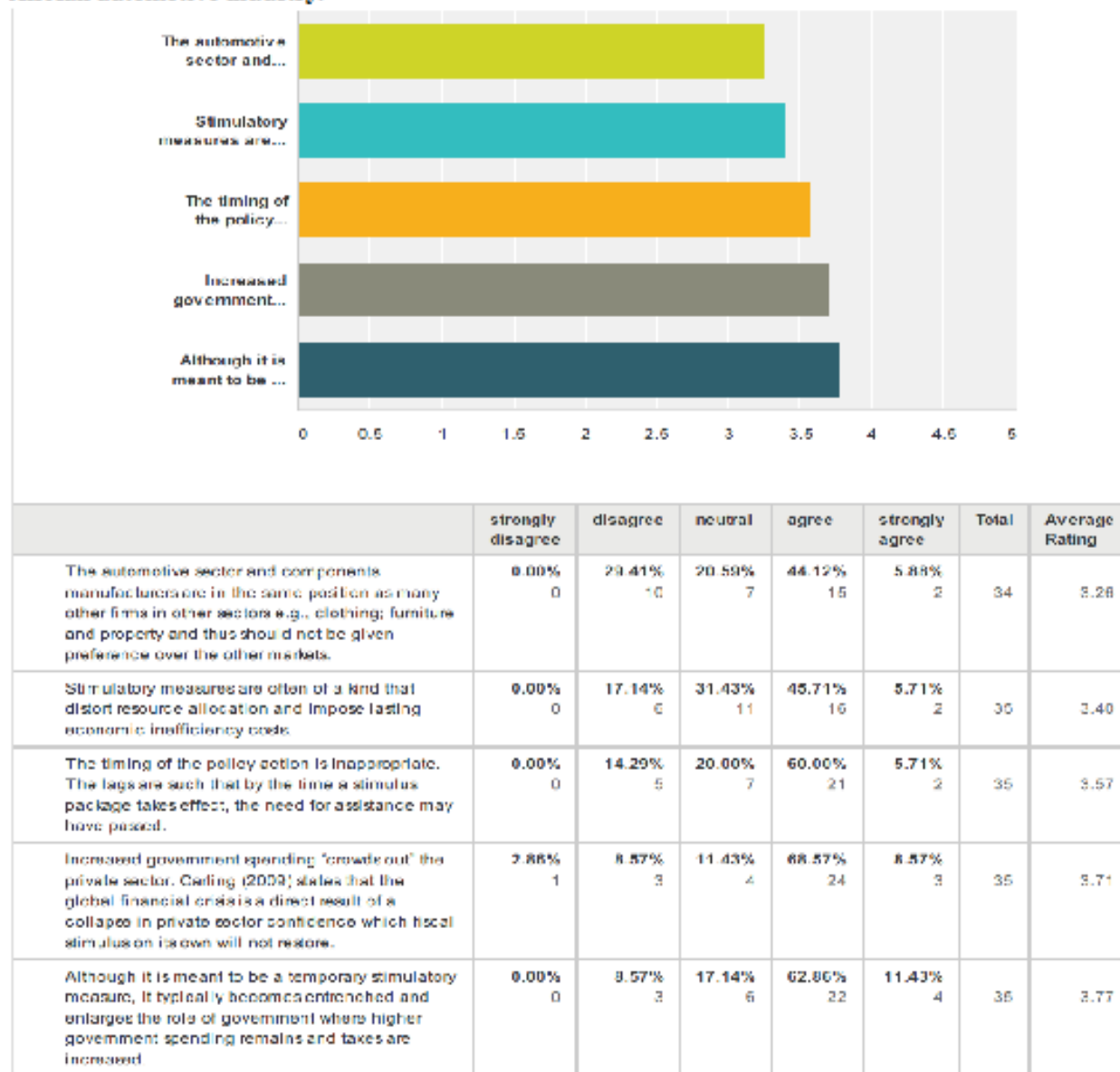
38.24% of the respondents agreed that without a government bailout, the motor industry would suffer financially and this will further impact on the countries trade deficit. Even though 20.59% disagreed, the further 11.76% of respondents that strongly agreed resulted in a 50% total agreement with regards to the above notion.

37.14% of the respondents agreed that the automotive sector is an industry in which many jobs will be lost unless government provides the industry with financial assistance. Even though 22.86% disagreed, a further 14.29% of respondents strongly agreed with this sentiment resulting in a 51, 43% total agreement with regards to the above notion.

According to Beires [5] many countries have already been beneficiaries of government bailouts. Therefore it is not unexpected that the South African automotive industry has called for it. Thus the findings of this research are in keeping with the global expectations that government must provide the automotive industry with a financial bailout.

Despite knowing the likely consequences that will follow a collapse of the automotive industry, there are still many who are strongly opposed to government intervention.

Table 12: Analyses the arguments against government providing a financial bailout to the South African automotive industry.

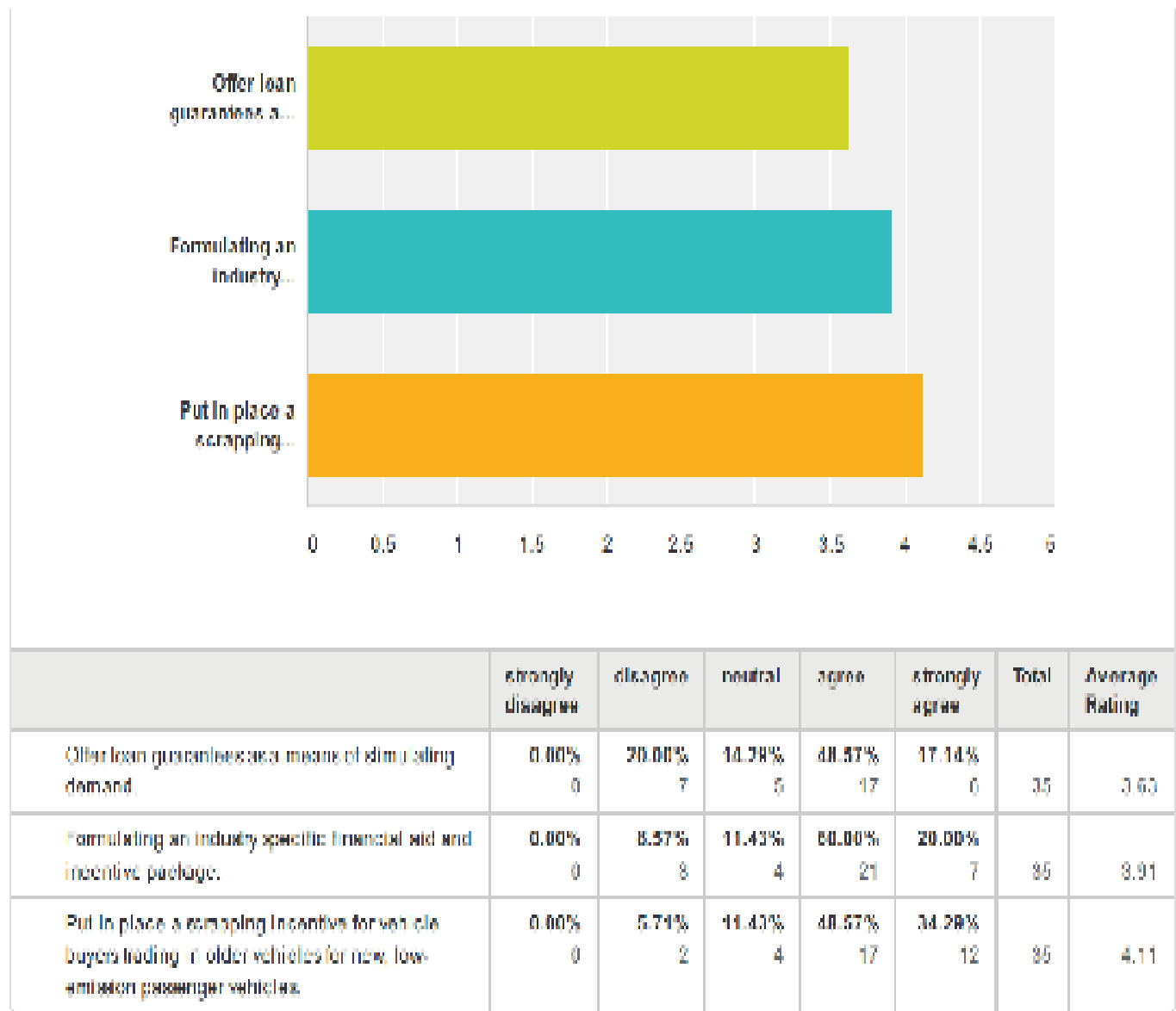


44.12% of the respondents agreed that the automotive sector and components manufacturers are in the same position as many other firms in other sectors e.g., clothing, furniture and property and thus should not be given preference over the other markets. 45.71% of respondents agreed that stimulatory measures are distorting the industries resource allocation and imposing enduring economic inefficiency costs. 60% of respondents agreed that the timing of the policy action is inappropriate and the need for assistance may have passed by the time a stimulus package takes effect. 68.57% of respondents agreed with Carling [15], that the global financial crisis is a direct result of a collapse in private sector confidence which fiscal stimulus on its own will not restore. Finally 62.86% of respondents agreed that financial assistance enlarges the role of government where higher government spending remains and taxes are increased. From an analysis of the above findings and looking at the average ratings of 3.26 to 3.77, it would appear that the majority of the respondents agree with a counter fiscal policy as proposed by Carling [15].

When comparing the arguments for and against government intervention, the findings of this research indicate that more of the respondents were against the provision of financial assistance than for it.

Providing an Appropriate Policy Response to deal with the Effects of the Global Economic and Financial Crisis on the South African Automotive Industry

Table 13: Analyses appropriate policy responses to deal with the effects of the global economic and financial crisis on the South African automotive industry.



48.57% of the respondents agreed that offering loan guarantees as a means of stimulating demand would be an appropriate policy response with a further 17.14% that strongly agreed with this proposed strategy. 60% of the respondents agreed that there is a need to formulate an industry specific financial aid and incentive package with a further 20% that strongly agreed. This means that this proposed strategy received 80% approval in terms of the above findings. 48.57% of the respondents agreed that putting in place a scrapping incentive for vehicle buyers trading in older vehicles for new, low-emission passenger vehicles would be appropriate. A further 34.29 % of the respondents strongly agreed with this proposal thereby giving it an 82.86% approval. The average rating of 4.11 further indicates that this proposal was the most popular and was seen as the most appropriate policy response for dealing with the effects of the global economic and financial crisis on the South African automotive industry.

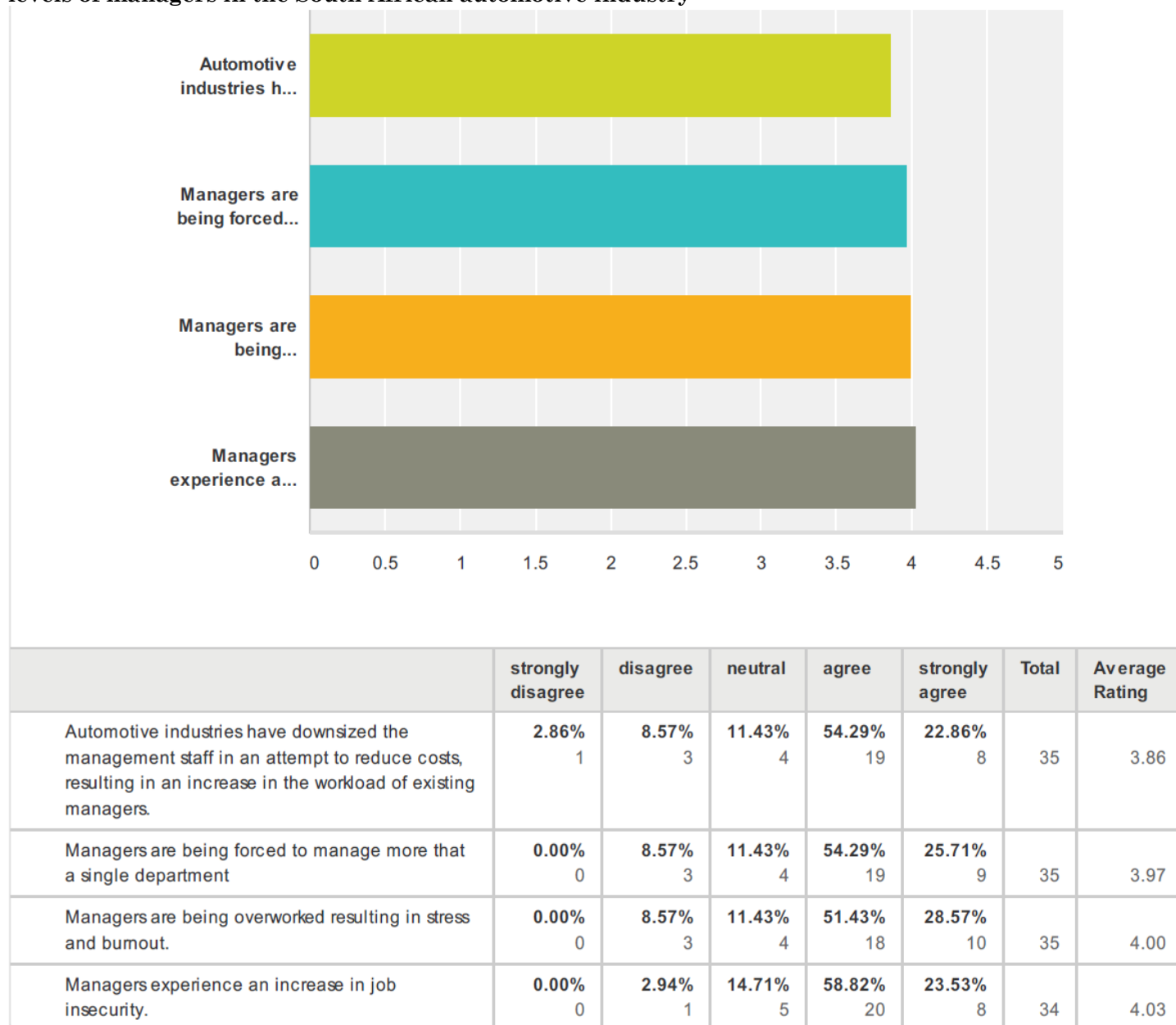
The Effects of the Global Recession on the Work Restructuring Levels of Managers in the South African Automotive Industry

According to Gambles, Lewis and Rapoport [25] paid work is becoming increasingly invasive and demanding in the lives of individuals, diverting time and energy from other parts of people's lives that are of equal value to them. Aspects of an individual's life that is critical for their well-being, such as time spent with children or friends, is often forced out by these work patterns. As the demands of paid work increase, so, too, do the difficulties in combining work with care responsibilities. Although working intensely may yield favourable outcomes, such as high earnings, prestige, satisfaction and promotional opportunities, this may occur only at the expense of minimising non-work obligations in order to have sufficient chance to recover from work efforts [26].

Thus, working families that come from developing countries such as South Africa face similar dilemmas to those from industrialised nations in terms of harmonising paid work with other areas of their lives [27]. Employers must also deal with pressures to flexibly structure their traditional employment relationships in order to deal with changes in the workplace, such as employees struggling to cope with the stress of conflicts relating to the need to balance their work and family demands [28].

In order to understand these issues in relation to the global recession, the analysis of the findings below aims to investigate the work restructuring levels, as well as the work and family involvement levels, of managers in the South African automotive industry. This aspect of the study is relevant due to the fact that the SA automotive industry has been deeply affected by the global financial crisis. Employees are presumably affected in terms of their workload; therefore research has been conducted on the impact of the recession on both the work and family involvement of employees in SA.

Table 14: Analyses what affect the global economic and financial crisis has had on the work restructuring levels of managers in the South African automotive industry

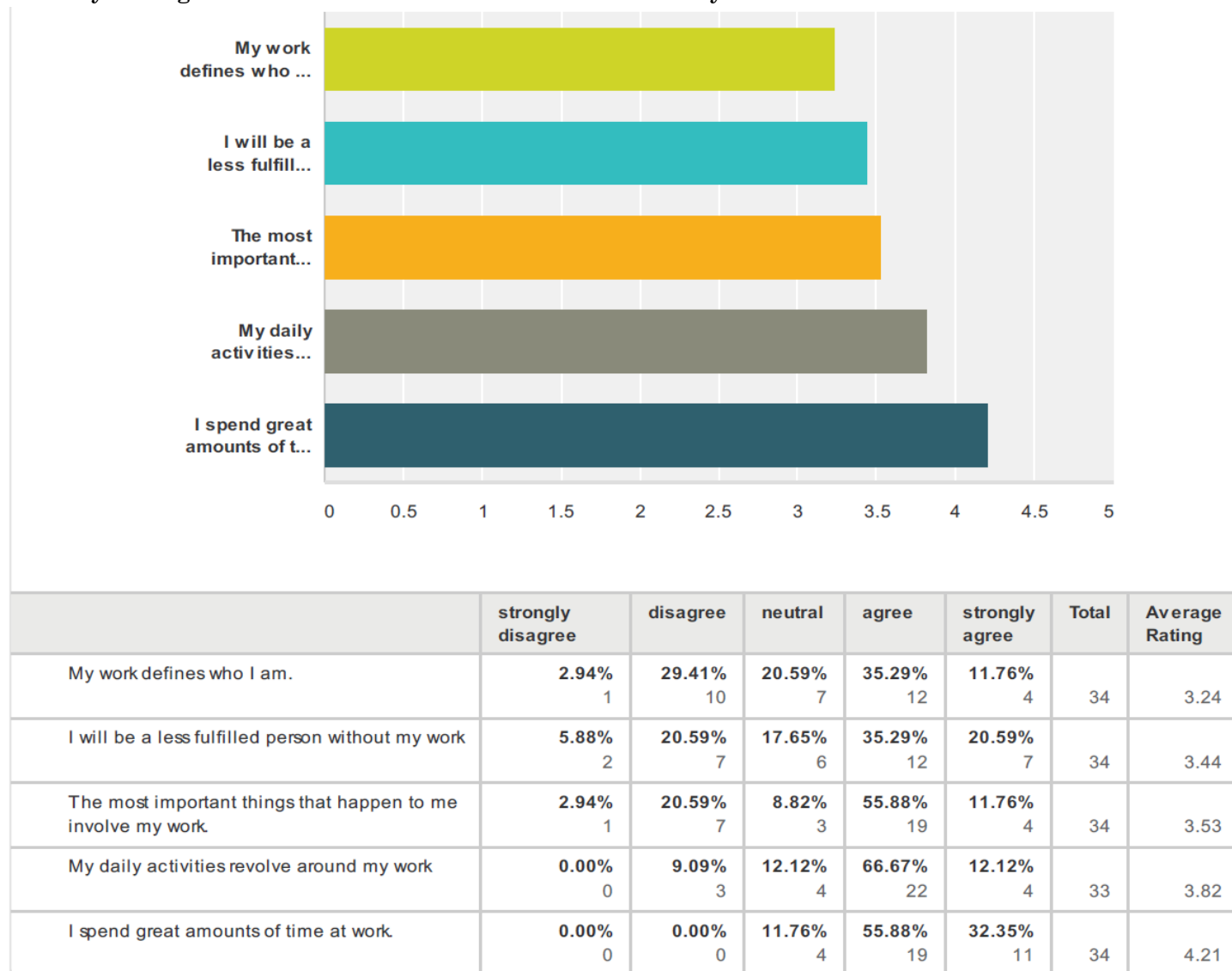


Work restructuring involves any change in the workplace with the purpose of streamlining activities, including work processes, products and changes in employment [29]. However, in the context of this study, the focus is on the way in which individuals restructure their working patterns to accommodate family responsibilities that is, the ability of managers and employees to have the flexibility to determine where, how and when work is to be completed [30].

Due to the economic downturn, many automotive industries have downsized to become more efficient. According to Gambles, Lewis and Rapoport [25], downsizing results in an increase in individual workload and an intensification of work and the pace at which it is to be performed. 54.29% of the respondents agreed that automotive industries have downsized the management staff in an attempt to reduce costs, resulting in an increase in the workload of existing managers. 54.29% of the respondents also agreed that managers are being forced to manage more than a single department.

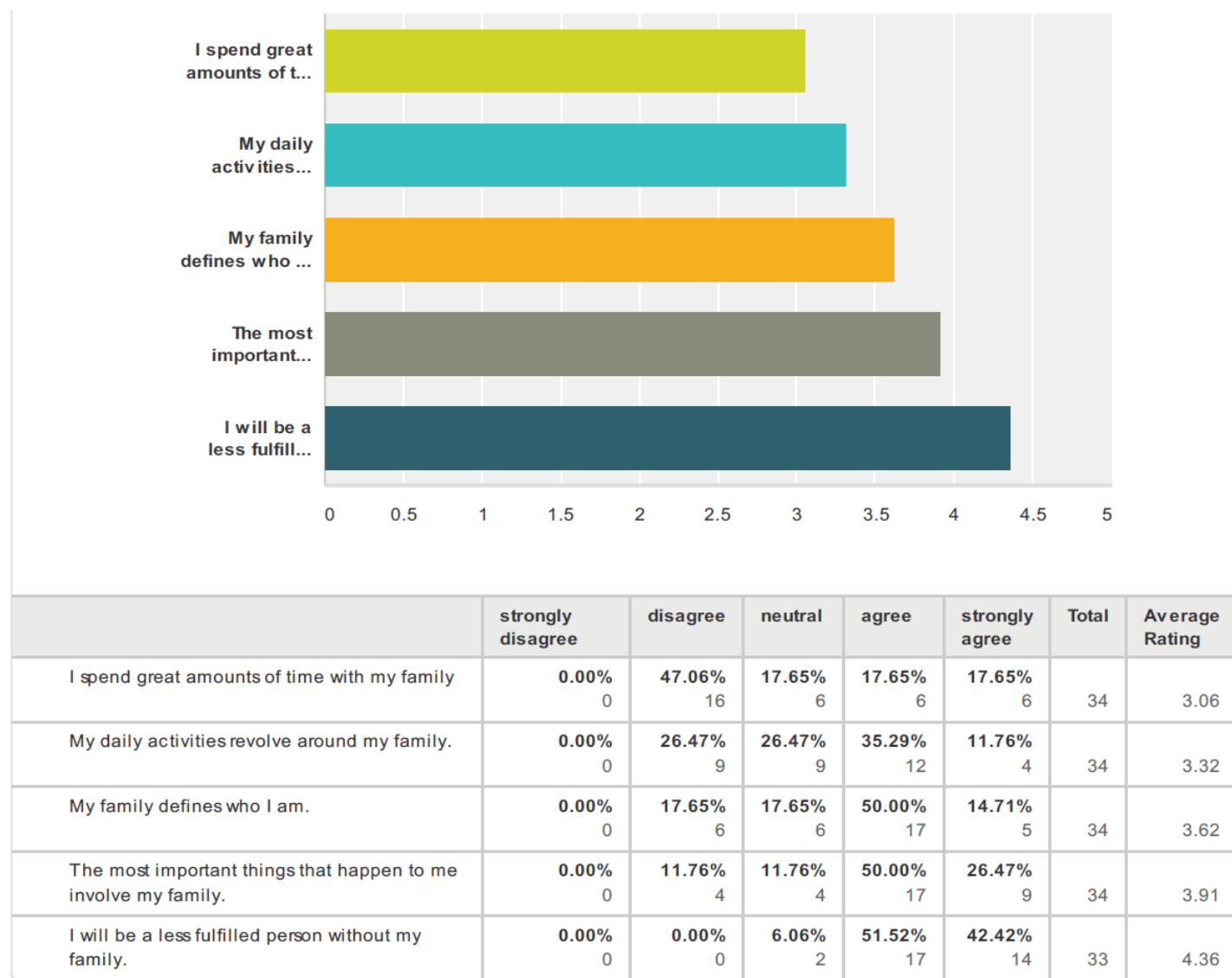
Furthermore, employees may experience an increase in job insecurity, whether perceived or actual. This increased feeling of pressure together with a fear of unemployment may further cause employees to overwork themselves, leading to stress and burnout. 51.43% of the respondents agreed that managers are being overworked resulting in stress and burnout. Finally, 58.82% of the respondents agreed that managers are experiencing an increase in job insecurity. Overall more than 20% of respondents strongly agreed to all of the above views. The average ratings of 3.86 to 4.03 shows majority agreement with all alternatives provided.

Table 15: Analyses how the global economic and financial crisis has affected the level of commitment to work by managers in the South African automotive industry.



35.29% of the respondents agreed that their work defines who they are while 29.41% disagreed with this notion. 35.29% of the respondents agreed that they will be less fulfilled without their work with a further 20.59% strongly agreed with this sentiment. 55.88% of the respondents agreed that they spend great amounts of time at work with a further 32.35% strongly agreeing. Therefore 88.23% of respondents were in total agreement with the above notion. It is also apparent that the majority of these respondents felt this way due to them considering their work involvement as being considerably important as 55.8% of the respondents agreed with this view. Hence one can conclude that there is a direct relationship between the amount of time spent at work and the importance of work in the lives of managers in the South African automotive industry. The average rating of 3.24 to a high of 4.21 further supports this view.

Table 16: Analyses how the global economic and financial crisis has affected the level of commitment to family by managers in the South African automotive industry.



47.06% of the respondents advised that they did not spend great amounts of time with their family. One can ascertain a direct relationship between the above notion and the 55.88% of the respondents that spend great amounts of time at work as per Table 14. It therefore becomes evident that the time spent at work reduced the time available to spend with family. 35.29% of the respondents agreed that their daily activities revolve around their families while 11.76% strongly agreed. 26.47% either disagreed or were neutral. However, more than 45% of the respondents in total agreed with the above view. 50% of the respondents agreed that that the most important things that happen to them involve their families and 51.52% felt that they will be less fulfilled people without their families. A further 42.42% strongly agreed that they will be less fulfilled. 93.94 % of respondents felt that their family life brought much fulfilment to them.

The aim of the last 3 questions of the questionnaire was to examine the work restructuring levels of managers in the South African automotive industry, and to examine how these levels were affected by the global economic recession. The patterns found in this research provide a glimpse into the current values of society. Work restructuring was investigated from the perspective of the managers' work and family involvement levels. Results show that no significant gender differences occur for work involvement, family involvement, or work restructuring. A practically significant and positive relationship exists between family involvement, work involvement and work restructuring. The amount of time that managers spend with their families, were shown to have decreased. However, overall family involvement levels were shown not to have decreased due to the economic recession.

According to Britain's Department of Trade and Industry, employers that are dedicated to obtaining the best workforce and becoming an employer of choice will consult with their employees, implement a policy of work-life balance and regularly monitor its impact, developing it further as and when required [31]. These policies should be implemented in the automotive industry organisations that participated in this investigation, as employees who wish to be more involved in their families are also finding it necessary to restructure their work despite changing economic climates. Employees who are highly involved in their work despite having families are likely to gain from the implementation of such policies, as these policies will likely reduce the levels of work-family conflict currently being experienced [32].

Conclusion and Recommendations

The findings from the literature review confirmed that as an industry, the automotive sector in South Africa has been making significant progress in terms of the sector's share of GDP and as an export orientated industry. It was evident that this sector has become an increasingly significant contributor to the South African economy. The various other industries and businesses that are sustained by the automotive sector, as well as the employment statistics provided in the literature review further emphasised the significance of the sector on the South African economy. It is therefore an industry which has provided a positive value chain in the South African economy.

It was evident that the KwaZulu-Natal economy has suffered negative economic consequences as a result of the effects of the global economic and financial crisis on the South African automotive industry. These negative consequences has led to job losses and reduced disposable income for the local economy.

Due to the reduction in the disposable income of consumer's as well as unpredictability in their future permanent income, the automotive industry has been faced with the predicament of a severe drop in demand. It was found that consumers have prolonged the purchasing of high value items like motor vehicles which has resulted in a decline in income for large automotive firms.

Companies within the South African automotive industry have downsized while a number of dealerships have closed down. Due to the above repercussions, it was also established that the provision of government assistance was essential. Despite the above notions, there were still many who were strongly opposed to government intervention and believed that the free market should be allowed to have its outworking's.

Where are we now?

Strike Action Negatively Impacts on the South African Automotive Industry

On the 05 September 2013 NUMSA (National Union of Metal Workers of South Africa) served a strike notice on the RMI for strike action to commence on the 9 September 2013. The Industry's export sales during

September, 2013 had been devastated as a result of the three week strike action experienced at the seven major vehicle manufacturing plants. The position worsened due to further industrial action experienced in the automotive component Industry.

The impact on domestic sales of the prolonged industrial action had been relatively subdued due to existing inventory levels and the fact that about two thirds of new cars sold in South Africa were imported. Aggregate export sales had declined sharply by over 75.1%, whilst overall domestic sales had fallen by 1.5% in volume terms [33]. More than a week after NUMSA called off the strike in the retail motor industry; the settlement was finally signed by all parties on the 15 October 2013.

The end to the strike and the signing of the agreement has enabled the RMI to reach a multi-year wage agreement after negotiations that started in May 2013. The RMI's negotiating team presented the final offer to NUMSA on the 29 September 2013. Table 1 and 2 below depicts the major outcomes and key aspects of the RMI / NUMSA settlement agreement of September 2013.

It appears that the impact of the global economic crises on the South African automotive industry is still being experienced when one looks at the effects of the above strike action on the Industry. The RMI is disappointed with the time taken to resolve the strike and in particular the impact it has had on the

automotive industry and the economy, particularly the component manufacturing and automotive manufacturing sectors. The prolonged strike has resulted in the following negative impacts on the South African automotive industry:

- Violence and tragic loss of life.
- Injury to staff.
- Loss in production.
- Loss of employee wages.
- Decline in confidence from foreign investors.
- Certain sectors being forced to make unaffordable concessions which neither the automotive industry nor the national economy can afford.

Table 17: RMI / NUMSA Settlement Agreement: 30 September 2013

(SECTOR 1 – CHAPTER 3 COMPONENT MANUFACTURERS)	ALL OTHER SECTORS (excluding sector 5)
Wages Based on actual increases across the board Year 1: 10%, Year 2: 8% & Year 3: 8%	Wages Year 1: 9%, Year 2: 8% & Year 3: 8% on current wage model, i.e. guaranteed increase based on monetary value of the % increase on minimum wages except Sector 6 which remains on minimum wages only.
Threshold: R172 000 for period of three years and R135 000 for the purposes of wage increases, to be increased in years 2 & 3 with 8%.	Threshold: R172 000 for period of three years.
Short Time – continue exploring as an alternative the training layoff scheme under the auspices of the CCMA / DOL in order to allow short time to be covered by the layoff scheme.	Short Time – continue exploring as an alternative the training layoff scheme under the auspices of the CCMA / DOL in order to allow short time to be covered by the layoff scheme.
Labour Brokers – Legislative dispensation which is to be promulgated to become applicable upon promulgation thereof.	Labour Brokers – Legislative dispensation which is to be promulgated to become applicable upon promulgation thereof.
Equal Pay for Equal work – as above	Area Differentials – Same % as Area A + 25 cents per hour
Discretionary Implementation date of wages 1 September	Agreement subject to it being extended to non-parties simultaneously
Peace Clause to remain as it previously existed.	Peace Clause to remain as it previously existed.

Source: RMI Negotiations Progress Report 2013

Table 18: Retail Motor Industry Wage Settlement 15 October 2013

Component Manufacturing Sector		All Other Sectors		Fuel Retail Sector	
Year 1	10%	Year 1	9%	Year 1	11.6%
Year 2	8%	Year 2	8%	Year 2	9%
Year 3	8%	Year 3	8%	Year 3	9%

Source: RMI Negotiations Progress Report 2013

Jakkie Oliver, current CEO of the RMI advises that the reported 75% drop in automotive exports and possible forfeiture of planned international investments bear testimony to the above [33]. These negative impacts can now be rectified and the industry can focus on recouping the loss in production in the sectors most heavily hit. In doing so the South African automotive industry can attempt to return to a position where businesses in the retail automotive aftermarket and component industry can plan and forecast the future for at least the next 3 years without the threat of further disruptions and strikes.

Industry new vehicle exports during September 2013 amounted to 6 622 vehicles. This was a substantial decline of 20 024 units or a decrease of 75.1% compared to the 26 646 vehicles exported in September 2012 [33].

This was due to the auto sector strike. The three week strike in the vehicle manufacturing Industry, with two manufacturers having endured a four week work stoppage, followed by the strike in the automotive original

equipment component manufacturing Industry has had a devastating effect on the Industry which accounts for approximately 30% of South Africa's manufacturing output. The impact of the strike will be reflected in GDP growth figures and South Africa's balance of payments and the consequences of the prolonged Industrial action will be felt by the Industry for a long time to come.

The strike action has damaged South Africa's status as a reliable supplier to international export markets and could well negatively affect future export contracts being awarded to the South African automotive manufacturers. Labour stability has been one of the most important considerations in the decisions by multinational corporations to allocate vehicle production to South Africa. Frequent and prolonged industrial action has portrayed South Africa as an unreliable base for manufacturing of vehicles and components for the world market.

Expectations of lower economic growth and above-inflation new vehicle price increases would contribute to a more difficult trading environment domestically. Despite a less promising outlook for the automotive sector for the balance of the 2013 year, the year as a whole possessed potential for increased domestic sales. The factors that have contributed to this are:

- The prevailing low interest rate environment has provided some support to the domestic market.
- Replacement demand is on the up.
- A highly competitive trading environment exists in the domestic market.
- High technology new models have been introduced.

Export sales have remained a function of the performance and direction of global markets and a number of regions have offered above average growth opportunities. These included North America, Asia and Africa. Once the three and a half week strike in the component Industry reached resolution, vehicle manufacturers have begun to put into place action plans to make up for some of the lost production and to enable the Industry to supply the needs of customers in highly competitive international markets. It has and will be extremely difficult, however, for manufacturers to make up for all of the loss in vehicle and component output.

Motor Industry Prospects for 2014

According to NAAMSA [34], higher than inflation new vehicle price increases for the second year in succession will be the key factor that will impact on demand and sales of new motor vehicles in 2014. The weakness of the Rand during 2013 against major international currencies has resulted in a depreciation of over 20% in terms of a trade weighted basis. This has led to significant cost pressures in respect of imported content used in locally manufactured vehicles and imported vehicles. Table 3 below details the Industry's domestic sales performance over the past five years and provides a projection for 2014.

Table 19: Annual 2014 domestic vehicle sales projections

Sector	2009	2010	2011	2012	2013	2014 Projected
Cars	258 129	337 130	396 292	442 604	450 440	450 000
Light Commercials	118 159	133 756	149 301	160 174	169 234	170 000
Medium Commercials	7 229	7 557	9 218	10 104	11 595	12 000
Heavy, Extra Heavy, Commercial Buses	11 705	14 464	17 438	17 737	19 351	20 000
Total Vehicles	395 222	492 907	572 249	630 619	650 620	652 000

Source: NAAMSA Statistics

The above statistics and projections assume another year of above inflation new vehicle price rises and a modest improvement in the South African economy which is expected to grow in real terms at around 2.9% in 2014 [34].

The following factors are expected to lend support to the automotive sector:-

- The low interest rate environment.
- The substantial increase in public sector infrastructure spending.
- The need for personal mobility.
- The dependence on road transportation of goods and materials for commercial vehicle segments.
- The stable automotive Industry policy framework which provides manufacturers with certainty and predictability for investment and planning purposes.
- The demand by the car rental Industry that is expected to remain strong during 2014 and should continue to make a positive contribution due to the expected growth in tourism and business travel.

The performance of exports will remain a function of the performance and direction of global markets. Signs of an improvement in the global economy appear to be emerging. For the South African automotive industry, recovering sales in the United States and continued growth in Asia, particularly China, represent the main drivers behind global sales [34]. The demand for light commercial vehicles in African markets is also expected to show above average growth. These trends are expected to support the 2014 Industry export sales.

NAAMSA expects the domestic production of motor vehicles in South Africa during 2014 to increase from the approximately 550 000 vehicles produced in 2013 to about 611 000 vehicles in 2014. This represents an improvement in vehicle production of about 11%.

The projected higher levels of vehicle production are consistent with the vision for the South African automotive industry. The Industry wishes to remain a leading supplier of high quality, competitive automotive

original equipment parts and accessories and vehicles to international markets. Secondly there has been an immense focus in the Industry to achieve an annual domestic vehicle production figure of close to 1 million vehicles by 2020 [34]. One notes here that whilst the industry in the past had reduced production due to the effects of the financial crisis, it is now striving to become a high level unit producer. In order to achieve the new vehicle production target in South Africa of 1 million units per annum, industrial relations stability and close cooperation between employers and unions to improve productivity and overall efficiencies is essential. Further focus is also required in order to reduce the widening cost gap between SA producers and international competitors.

Findings from the Study

The Major International Changes that occurred in the Automotive Industry during the Last Century

The majority of respondents agreed that the three major automotive revolutions during the last century were effective in allowing for a leap forward in productivity and cost. Toyota's lean production and customised mass production techniques were found to be highly effective.

The level of influence that Human Resources Management, Sales and Marketing, Purchasing Management and Primary Activities and Costs have on the scope of supply chain management when considering Inbound Logistics.

The respondents shared the view that all of the above factors had a considerable influence on the supply chain when considering inbound logistics with primary activities and costs considered the most influential factor.

The level of influence that Distribution, Service and Support Activities and costs have on the Scope of Supply Chain Management when considering Outbound Logistics.

The respondent's opinions were split between that of considerable and great influence in terms of the influence that the above factors have on supply chain management when considering out bound logistics with

service activities considered the most influential factor.

The level of influence that General Administration, Product R and D, Technology and Systems Development and Profit Margin have on the Scope of Supply Chain Management when considering Operations.

The respondents shared the view that all of the above factors had a considerable influence on the supply chain when considering operations with profit margin considered the most influential factor.

The Main Supply Chain issues faced by OEMs.

Majority of the respondents agreed that the supply chain issues as analyzed in Chapter 4 posed major concerns to the South African automotive industry supply chain. It was evident that supplier sustainability and the impact of the above factors on overall costs were the most concerning issues.

The Current Status of the Crisis being experienced in the South African Automotive Industry.

The respondents shared the view that the current crisis that faces the South African automotive industry is that of a severe drop in demand with the reduction in the disposable incomes of consumers being the factor that was having the greatest adverse effect on the South African automotive industry.

The Implications that the Global Economic and Financial Crisis has had on the South African Automotive Industry.

Majority of the respondents agreed that the crisis and more especially the reduction in the disposable incomes of consumers (as discussed in the previous findings 5.3.6), has resulted in consumers prolonging the purchasing of high value items like motor vehicles. The respondents shared the view that the job losses that have occurred in the automotive sector, which has affected all major automotive firms was the most noticeable and detrimental implication of the global economic and financial crisis on the South African automotive industry.

The Economic Impact of the Automotive Industry on the Economy of South Africa.

The respondents shared the view that the arguments and challenges as analyzed in Chapter 4 were valid and substantial.

The effects that the Global Economic and Financial Crisis have had on the supplier industries to the South African Automotive Industry.

The respondents were either neutral or unsure of their response. The above findings illustrated that whilst some of the Finance and Insurance Departments as well as Parts or Automotive Component divisions within the dealerships are finding it difficult to cope, others appear to be showing an improvement.

The arguments in support of Government providing a Financial Bailout to assist the

South African Automotive Industry.

The respondents shared the view that the South African Government should provide the automotive industry with a financial bailout.

The arguments against Government providing a Financial Bailout to assist the South African Automotive Industry.

The findings relating to the disadvantages of government providing financial assistance to the South African automotive industry revealed that more of the respondents were against the provision of financial assistance than for it.

Appropriate policy responses to deal with the Effects of the Global Economic and Financial Crisis on the South African Automotive Industry.

A substantial amount of respondents strongly agreed that these strategies as analyzed in Chapter 4 of this research should be implemented and would provide an appropriate policy response to deal with the effects of the global economic and financial crisis on the South African automotive industry.

The effect that the Global Economic and Financial Crisis has had on the Work restructuring levels of Managers in the South African Automotive Industry.

A substantial amount of respondents agreed that due to the downsizing of management staff, managers were forced to manage more than a single department which has resulted in an increase in workload, stress and job insecurity.

How the Global Economic and Financial Crisis has affected the Level of Commitment to work by Managers in the South African Automotive Industry.

Majority of the respondents considered their work involvement as being considerably important. The respondents shared the view that they spend great amounts of time at work and will be less fulfilled without their work.

How the Global Economic and Financial Crisis has affected the Level of Commitment to Family by Managers in the South African Automotive Industry.

Majority of the respondents considered their family relationships significant and that that they will be less fulfilled persons without their families. It was evident that managers were spending smaller amounts of time with their families and greater amounts of time at work.

The aim and purpose of this study was to identify ways of overcoming the current challenges experienced by South African OEMs as well as franchise dealerships, including, but not limited to their supply chain issues.

In order to facilitate the above, the researcher has provided current data applicable to the South African motor industry, to assist with evidence based, informed decision making. The description of the major changes that occurred in the automotive industry has been analysed in this research study to determine whether the global recession has brought the automotive industry to the verge of a fourth revolution. An overview of the scope of supply chain management with an emphasis on inbound logistics, operations and outbound logistics has been provided. The main supply chain issues faced by OEMs has been analysed and discussed in order to assist the industry to formulate strategies to overcome these challenges. An overview of the economic impact of the motor industry on the South African economy has been provided, in order to highlight its importance to our economy.

The impact of the motor industry on the KwaZulu Natal economy has been determined. The arguments for and against government intervention has been analysed and discussed. Finally, the effects of the global recession on the work restructuring levels of managers in the South African automotive industry have been investigated.

Recommendations

- As discussed in Chapter 4, Maxton and Wormald [1] propose a fourth major change where the motor industry takes an entirely different look at their businesses. It is therefore recommended that the motor industry consider new opportunities by redefining along innovative and more economically attractive lines. The industry needs to unbundle and rebuild itself in an attempt to achieve an optimum balance between economies of scale and variety at each stage of the supply chain. The researcher recommends the green agenda in automotive manufacturing as one such initiative, using the opportunity on the side of government to push the industry on the green agenda in automotive production.
- In terms of primary activities, the researcher recommends that stronger emphasis be place on after-sale support as this will create value for the customer, strengthen the customer base and create competitive advantage.

- The Variable Margin Policy developed by OEMS' such as MBSA, rewards many dealers for meeting certain After-Sales, Sales and other performance criteria. The Variable Margin component comprises performance based measurements. The dealer performance component incentivizes various franchise dealerships in South Africa based on their workshops service performance as follows:
 - An SMS-based CSI (Customer Satisfaction Index) survey is conducted. All customers that have serviced a vehicle will be surveyed.
 - Customers are sent one SMS requesting a score between 1 and 10 for the service experience from a Dealer, rating between 1 (Totally unsatisfied) to 10 (Extremely satisfied).
 - Measurement is based on the CSI SMS methodology which includes new vehicles as well as service CSI;
 - The SMS Net score is calculated as follows: $(A - B) / C * 100\%$, where
 - A= Number of customer replies with score equal to 10 and 9 (Promoters) B= Number of customer replies with scores between 1 to 6 (Detractors) C= Total number of customer replies
- In terms of service activities, the researcher recommends that the above policy be studied and grasped by not only the service managers but the service advisors as well. These are the people who interact with customers and must therefore understand the requirements for maximum payout. It is further recommended that service advisors receive specialized training with regards to the above in order to enhance their skills and enable them to provide customers with service excellence. The end result will be increased profitability to the dealerships in the South African automotive industry. The provision of such training may also assist with recouping the skills shortage in the South African automotive industry.
- In terms of the main supply chain issues faced by OEMs, the researcher recommends that one needs to evaluate what global automakers can do to help the suppliers they want to keep. The South African automotive industry may capitalize on this in an attempt to safeguard stability in its supply sector, reduce costs and sustain their important suppliers.
- Many of the vehicle manufacturers have become nervous with regards to the impact the economic crisis has had on the supply industry. From a vehicle manufacturer's point of view, all necessary steps need to be considered in order to safeguard stability in the supply sector. This means that many vehicle manufacturers have to start looking after their best suppliers. One must note that when a supplier shuts down, other related companies tend to be impacted as well. Selected vehicle manufacturers have therefore negotiated plans with more financially secure suppliers. However changeover of a supplier can prove to be difficult, costly, and time consuming. The researcher makes the following recommendations to OEM's e.g. Daimler, BMW, Ford and VW in order to assist suppliers:
 - Encourage stronger suppliers to take over weaker ones.
 - Pay in advance for parts.
 - Speed up payments.
 - Assist with finance production tooling.
 - Purchase raw materials for their suppliers only.
 - Assist suppliers with obtaining financing.
 - Advise on possible alliances and merges.
 - Forming special terms in the purchasing department to prevent suppliers from collapsing.
 - Provide advice on how to cut costs.
 - Provide advice on how to improve efficiency.
- The researcher suggests the following recommendations to stimulate demand and enhance turnover:
 - Offer special pricing deals as an innovative way of stimulating demand.
 - Looking at what the major role players in the global automotive industry are doing to manage the crisis and remain profitable and perhaps implementing similar trends in the South African Automotive industry.

- Barnes [35] advises that the South African OEMs are under extreme amounts of pressure to improve the global competitiveness of their products by way of price, quality, reliability and innovative techniques in order to increase sales and enhance profits. The researcher suggests the following mechanisms be put in place:
 - Lean production or just-in-time production.
 - Streamlining of suppliers both domestic and international.
 - Consolidating of motor industry supply chains across the globe.
 - Strategic partnerships and merging of operations in order to generate greater economies of scale globally.
- In terms of those dealerships that are operating under difficult conditions, the decrease in demand for in house finance, vehicle lease agreements and automotive components has led to big cuts in auto production. Therefore the researcher recommends that one needs to evaluate what global suppliers can do to cope with big cuts in auto production in an attempt to assist the South African automotive industry in benchmarking these processes.
- The major issue regarding the supplier industry lies in the failure of smaller companies down the supply chain. These specialist suppliers focus on commodities like raw materials and wiring which are needed for the larger suppliers to create the modules and systems that are required in the final vehicle assembly. Thus the further down the supply chain that any issues occur; the broader will be the impact upon the whole supply sector. For example, a polymer supplier would supply several automotive interior system suppliers, so any failure at this level would disrupt the entire automotive manufacturing chain as none of these interior system suppliers would be able to supply the vehicle manufacturers.

Overall the supply sector has been faced with the concerning issue of a number of automotive suppliers being reduced significantly, given the decline in vehicle production. Current market developments have also made it very hard for suppliers to effectively cut costs and be able to cope with these vehicle manufacturer production cuts. Furthermore many suppliers are finding it increasingly hard to secure capital from banks at

affordable rates. This gives rise to the risk that the vehicle manufacturers might actually be unable to manufacture the demanded vehicles due to a shortage of components and suppliers. The researcher suggests the following recommendations for suppliers in an attempt to cope with big cuts in auto production:

- Extend the holiday plant shutdown period. Sites that are struggling can shut down for two to three weeks in December.
 - Reduce the length of workdays at plants.
 - Halt investments that are not urgent.
 - Halt production on certain days.
- As the global recession has expanded, there have been many sectors in the South African economy that have required assistance and that will require assistance. It is also likely that most of the sectors that will require help first, will be those that are globally uncompetitive at the core [15]. There will therefore always be opinions and arguments of whether government should support industries that are uncompetitive. Although this is a valid argument, one has to ask the question whether government should allow huge job losses during a recession as such an action on the part of government will cause the recession to persist and deepen as demand and disposable income declines through sustained job losses. If industries are not supported, this is what will happen and the effects will be further transmitted into different sectors of the economy [15].

The automotive industry is not the first; neither will it be the last sector to ask for government assistance. It therefore appears that the argument calling for government to come up with an economy wide response to the potential fallout that will result from the recession would be the most practical solution.

South Africa's motor industry has always been one that has been protected and has received support from government initiatives. It could be argued that it is an industry that to a certain extent does suffer from inefficiencies and that there is room for improvement in operations and price setting. However it is also seen as an industry that provides substantial employment to the national and local economies in South Africa, with it being the main livelihood in many geographical areas of South Africa [15]. In terms of the provision of government assistance, the recommendation by the researcher is that the industry should receive assistance that is clearly and cleverly thought out with conditions for repayment attached.

- The researcher recommends that the following new policies be created and put in place:
 - Putting in place generous scrapping incentive for vehicle buyers trading in older vehicles for new, low-emission passenger vehicles.
 - Offering loan guarantees to protect its domestic industry in addition to an already existing scrapping incentive plan as a means of stimulating demand.
 - Formulate an industry specific financial aid and incentive package.

- In terms of the final 3 findings pertaining to the research study, the researcher suggests the following recommendations for automotive industry organisations to assist managers in obtaining a balance between their work and family involvement:
 - Consult with managers about their individual needs regarding the balance between their work and family lives. Uncover whether managers are satisfied with the current flexibility granted them by the organisation in terms of restructuring their work to accommodate family responsibilities.
 - Based on this process of consultation, develop and implement a gender-neutral work-family policy to assist managers in restructuring their work to accommodate family responsibilities. This will also serve to formalise the organisation's standpoint on what type of accommodations are acceptable to the organisation and which are not acceptable.
 - Inform managers about this policy, emphasising the accommodations that the organisation is willing or able to make. Ensure that it is understood and that managers recognise that it applies across genders, free from discrimination or stereotypes.
 - Continually evaluate this policy to determine its effectiveness and assess whether it has positively affected the family lives of managers. Make relevant changes based on feedback from managers.

- Implement counselling services whereby employees can discuss personal issues relating to the effect of the recession on their personal lives, such as workplace anxiety, stress, job insecurity and difficulties in balancing work and family involvement.

Conclusion

Learning the right lessons from the effects of the global economic and financial crisis is a challenge for the leaders of the advanced economies, the global and local automotive industry and the emerging economies globally. Their policies both individually and collectively will determine the evolution of the global economy and financial systems over the next several decades. Learning and applying the right lessons is a challenge for the leaders of the smaller emerging and developing economies like South Africa which will have to live with the global decisions and the consequences thereof.

Even till now, the full extent and consequences of the global economic and financial crisis on the South African automotive industry and other markets are not fully known, but it has proved to be the most severe in terms of the extent and seriousness of its global impact. During periods of economic downturn, organisations succeed if they are able to adapt to new realities as well as control their expenditures [36]. It would therefore be valuable to investigate the different sectors of the automotive industry independently, and to extend this study to other industries.

The existing literature, the findings and the recommendations of this study, have provided valuable insight into enhancing our understanding of the topic at hand. This study has objectively investigated the effects of the global economic and financial crisis on the South African automotive industry in an attempt to assist the industry to cope

with the impact of the recession in a progressive manner. It has also created an awareness and understanding with regards to how the global recession has affected the work restructuring levels and family involvement of managers in the South African automotive industry [37-49].

Note: This dissertation was submitted by the principal author to the Regent Business School, Durban, South Africa for the award of the Master of Business Administration Degree (MBA) in 2014. The study was supervised by Academic Saleshe Panday and was edited by Professor Anis Mahomed Karodia for purposes of a journal article. Kindly note that the entire bibliography is cited.

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