The impact of South African automotive policy changes on the domestic leather industry

By

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Declaration

I declare that this dissertation entitled: **“The impact of South African automotive policy changes on the domestic leather industry”** is my own work and that all the sources that I have used, or quoted, have been indicated and acknowledged by means of complete references.

_____ _____

SIGNATURE DATE

(Faizal Khan)

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Abstract

The South African leather industry has undergone a significant transformation since the 1990's and this can be attributed primarily owing to two major factors that occurred. The first being trade liberalisation, which meant the fall of trade barriers, and the second being the Motor Industry Development Programme (MIDP), which was implemented in South Africa on 1 September 1995. The MIDP was implemented in the context of the country's political and economic liberalisation, and the major structural shift in government policy and the trade regime.

South Africa became much more globally integrated and the South African leather industry benefited because of this, as well as the incentives that was offered under the MIDP. Automotive exports of stitched leather seat parts responded positively to the incentives offered under the MIDP and stitched leather seat parts, as a component under the MIDP, became one of the best performing components being exported from South Africa.

The MIDP had been terminated at the end of 2012 and is now being followed by government's latest rendition of automotive policy, namely the Automotive Production and Development Programme (APDP). The APDP focuses on value addition, which pursues beneficiation of the country's raw materials to the final stages, to ensure maximum benefit to the South African economy. The findings of the study entail that the South African leather industry is now in a vulnerable state because of the new automotive policy. This is mainly because the APDP does not provide the same level, or type, of incentives that the MIDP had provided to the industry.

Keywords: MIDP, APDP, ATCG, JALI, NAAMSA, NAACAM, DTI, SAFLIA, SHALC, AIEC, manufacturing sector, automotive policy.

Abbreviations

ACM – Automotive Component Manufacturer's
AIDC – Automotive Industry Development Centre
AIEC – Automotive Industry Export Council
AIS – Automotive Investment Scheme
ALC – Automotive Leather Company
APDP – Automotive Production Development Programme
ASP – Automotive Supplier Park
ASCCI – Automotive Supply Chain Competitiveness Initiative
ATCG – Automotive Tanning and Cutting Group
BIT – Bilateral Investment Treaties
BD – Business Day
BRICS – Brazil, Russia, India, China, South Africa
BTT – Board on Tariffs and Trade
CAN – Competitive Advantage of Nations
CBU – Completely Built up-Unit
CKD – Completely Knocked Down
CFTL – Clothing Footwear Textiles and Leather
CSP – Customised Sector Programme
DAFF – The Department of Agriculture, Forestry and Fisheries
DFA – Duty Free Allowance
DTI – The Department of Trade and Industry
DMR – The Department of Minerals and Resources
DNT – The Department of National Treasury
EU – European Union
EEC – European Economic Community
EMIA – Export Marketing and Investment Assistance
FAO – Food and Agriculture Organisation of the United Nations
FRIDGE – Fund for Research into Industrial Development, Growth and Equity
FOB – Free on Board
GATT – General Agreement on Tariffs and Trade
GDP – Gross Domestic Product

GM – General Motors

IEC – Import-Export Complementation

IMF – International Monetary Fund

IPAP – Industrial Policy Action Plan

IRCC – Import Rebate Credit Certificate

ISTT – International School of Tanning Technology

ITAC – International Trade Administration Commission

JALI – Joint action group on Automotive Leather Interiors

JIT – Just In Time

JCI – Johnsons Control Inc.

KAP – Key Action Plans

LCV – Light Commercial Vehicle

MIDC – Motor Industry Development Council

MIDP – Motor Industry Development Programme

MITG – Motor Industry Task Group

MNC – Multinational Corporations

NAACAM – National Association of Automotive Component and Allied Manufacturers

NAAMSA – National Association of Automobile Manufacturers of South Africa

NULAW – The National Union for Leather and Allied Workers

NUMSA – National Union of Metal Workers in South Africa

NIPF – National Industrial Policy Framework

NDP – National Development Plan

NGP – New Growth Path

NRF – National Research Foundation

OEM – Original Equipment Manufacturer (vehicle manufacturer)

OES – Original Equipment Supplier

OICA – International Organisation of Motor Vehicle Manufacturers

OIE – World Organisation for Animal Health

PI – Production Incentive

PRCC – Production Rebate Credit Certificate

R – South African Rand

RMI – Retail Motor Industry

SA – South Africa

SAFLIA – South African Footwear and Leather Industry Association

SARS – South African Revenue Services

SACTWU - South African Clothing and Textile Workers Union

SACU – Southern African Customs Union

SATMC – South African Tyre Manufacturers' Conference

SCM – Supply Chain Management

SHALC – Skins, Hides and Leather Council

SPSS – Statistical Package for Social Sciences

SV – Standard Value

SVI – Small Vehicle Incentive

US – United States

USA – United States of America

USD – United States Dollar

UK – United Kingdom

VAA – Vehicle Assembly Allowance

WTO – World Trade Organisation

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Chapter 1

Background to the study

1.1 Introduction

The history of the leather industry in South Africa was founded in the early days of the Dutch settlement at the Cape when the hides and skins of slaughtered animals were normally manufactured in to materials of use. The domestic leather and footwear industry continued to grow throughout the 1900's, and its reliance on the footwear industry's demand continued up until the 1980's when tanneries had to keep up with production to meet the demands of the population. From mid-1980's, the start of the upholstery and automotive leather demand began and tanneries started to expand further because of the global nature of the motor industry, as well as the inherent demand from the domestic automotive industry (Mowat, 1996:4).

During the early 1990's, the primary focus of bovine tanneries was directed towards providing raw material for the domestic market. These included the leather footwear manufacturers, the manufacturers of general goods and the manufacturers of furniture (Ballard, 2001:3). Significant drivers of the domestic automotive industry have been government support and tariff liberalisation. This affected the development and performance of the domestic automotive industry, which led to an economic shift from import substitution, to pursuing to capitalise from growth through exports in an open economy.

This meant that in order for South African manufacturers to obtain access to international markets, the protection from import tariffs had to be reduced to allow foreign manufacturers access to South African markets. Therefore, South African manufacturers were not only competing with domestic competition, but were open to foreign competition as well (Ballard, 2001:5).

Reduced tariff protection has contributed to the loss of market share of footwear leather for South African tanneries and manufacturers mainly for two reasons (Ballard, 2001:14):

- Firstly, South African leather footwear manufacturers were relying too heavily on the domestic market. The downfall is that the domestic market has been penetrated by cheap imports from China and India.
- Secondly, South African leather footwear manufacturers have shifted their focus to using imported leather for the manufacture of shoes in order to be price competitive in the domestic market, but this, however, has reduced the demand from the domestic tanneries.

Owing to their strong link with the automotive sector, input supporting industries such as: rubber, steel, chemicals and leather, amongst others, benefited from growth in the automotive sector. At this time, tanneries switched their focus from footwear to automotive tanning. The domestic automotive upholstery industry is, therefore, not a longstanding industry; it is a recent arrival on the automotive landscape. From being a negligible size in the early 1990's, it has grown substantially particularly thanks to the Motor Industry Development Programme (MIDP) being implemented by the Department of Trade and Industry (DTI) in September 1995.

The South African automotive industry has been subjected to many changes because of the various automotive policies, however, the MIDP differed from previous government interventions in one fundamental way. The automotive industry, in the past, was characterised by a demand side support provided by government, which meant that it promoted the demand for domestically made goods and this was further characterised by implementing prohibitive taxes on imported goods (Ballard, 2001:23).

The MIDP, by contrast, was a supply side support programme implemented by government. This was not meant to shield the domestic industry from international competition, but to enable the domestic industry to improve its international

competitiveness in the global environment. The automotive sector, therefore, became export orientated and the need to defend the domestic market reduced considerably.

In the new era of globalisation, the MIDP significantly increased the development of automotive manufacturing in South Africa and has been widely regarded as a major successful and innovative national strategy (AIEC, 2013:4). The MIDP was terminated at the end of 2012 and has been followed with government's latest rendition of automotive policy in the form of the Automotive Production and Development Programme (APDP), which will continue until 2020. The APDP will shift the focus from export to local value addition. It is crucial that all South African-based automotive firms begin to take the implications of the APDP into account within their business strategies.

The next section provides a brief overview as to why the change from the MIDP to the APDP was implemented, and provides an overview of the impact of South African automotive policy changes on the domestic leather industry.

1.2 Problem statement

The main premise behind the change from the MIDP to the APDP was to focus the automotive industry on the way forward, as well as the need to align the industry's support model with the World Trade Organisation's (WTO) compliance measures, and to elevate the industry to the next level. Under the MIDP, the monetary value of the local content of automotive components, and light and heavy motor vehicles that have been exported was used to import an equivalent monetary value of automotive components and Completely Built-up-Units (CBUs). However, the APDP will focus and encourage domestic value addition by increasing the volumes of vehicles being manufactured in South Africa, which will lead to economies of scale in the manufacturing of vehicles.

The vision of the APDP aims to manufacture 1.2 million vehicles per annum by the year 2020 with an associated broadening and deepening of the country's component production basket (AIEC, 2014:13). This was introduced to ensure a major increase in business opportunities, such as local component manufacturing, as well as enhance the viability of projects in the country significantly (AIEC, 2013:95).

According to the Joint action group on Automotive Leather Interiors (JALI, 2013), the successor of the MIDP, the APDP, is perceived to be negative for all material intensive industries, such as the leather and the catalytic converters industry, taking into account that leather constitutes 60% of the cost of the final product in the manufacturing of stitched leather seat parts. Labour, although an essential part of total production cost, is not a critical factor if compared to leather, which indicates how sensitive this industry is to the cost of raw materials (JALI, 2013). Table 1.1 compares the cost of labour and raw materials in the manufacturing of stitched leather seats.

Table 1.1: Comparison of labour and raw material costs (2013).

Wet Blue to Cut Set		
Finished leather (R/m2)	**Labour**	**Wet Blue**
	18%	45% - 60%
Cut Set to Seat Cover		
Car leather set (R/m2)	**Labour**	**Wet Blue**
	5.2%	60%

Sources: (ATCG, 2013; JALI, 2013)

The primary research problem hinges on the introduction of the APDP in 2013 and its impact on the South African leather industry. In addition, the secondary research problems will entail the investigation the plight of the up-stream automotive leather tannery and sewing industry. They are regarded as vulnerable because of Original Equipment Manufacturers (OEMs) either withdrawing from South Africa, or scaling down their purchases of automotive leather products from South African suppliers.

One of the main reasons therefor is that South Africa has to compete with world-best-prices. The reason why OEMs do not want to primarily source from South Africa is that the domestic automotive leather supply chain has become uncompetitive, and Eastern Europe can manufacture and supply automotive leather products at a cheaper rate. South African manufacturers are at a disadvantage because the incentives provided under the APDP are not sufficient enough to offset the logistical airfreight costs to the main automotive markets in the world. This is due to the poor geographic location of South Africa in comparison with the world automotive supply chain.

Over 90% of the automotive tanneries and sewing plants are foreign owned Multinational Corporations (MNCs). According to JALI (2013), if the South African manufacturers lose vital domestic and export business that is necessary in order to grow the company, they get closed down. This happens because the mother companies operate identical manufacturing companies all over the world that will be only too ready to step in and take away the business. The benchmark is, therefore, global competitiveness and to endeavour to be even more competitive, otherwise the question arises: why would OEMs want to source from South Africa with the same technology and manufacturing equipment as is in the rest of the world? OEMs can, therefore, switch their supply with much ease as is currently occurring.

According to the Automotive Tanning and Cutting Group (ATCG, 2013), the stitched leather seat parts industry has turned from a dynamic export industry to a vulnerable industry. This is as a result of OEMs losing faith in this industry because of the inadequate government support under the APDP, and the demand from Europe and the main markets are declining. An incentive scheme, such as the APDP, is supposed to provide more support in order to balance the competition, otherwise a further decline in demand is forecasted unless an adequate and improved APDP support programme is obtained (JALI, 2013).

Complete stitched leather seat covers and parts have consistently remained one of the top automotive component categories exported under the MIDP. Stitched leather

seat parts were South Africa's top component exported from 1995 to 1998 and second largest component export from the year 1999 to 2011, but moved down to number four in 2012 (AIEC, 2007:27; AIEC 2015:63). Exports of stitched leather seat parts were at R2 897 million in 2010. In 2012, it declined to R1 718 million and in 2013 to R1 530 million (AIEC, 2015:63). In 2014, the export of stitched leather seat parts declined even further to R1 285 million (AIEC, 2015:63). The domestic automotive leather industry's current situation does not look promising, because it has lost a major portion of its share in the European markets. Since the year 2009, South African exports to the Eurozone area have been in a decline. The domestic leather industry has lost significant market share of its main export destination, the German automotive market. The total number of exports of stitched leather seat parts to Germany for the period 1995 – 2014 is revealed in the following table.

Table 1.2: Exports of stitched leather seats from South Africa to Germany for the period 1995 – 2014.

Exports of stitched leather seats from South Africa to Germany										
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2 004**
Value R Millions	1019.0	1226.7	1363.8	1728.6	1840,0	1915.4	2391.	3183.6	2899.0	3112.9
Germany (%)	99	96	92	90	88	88	84	81	75	73
Year	**2 005**	**2 006**	**2 007**	**2 008**	**2 009**	**2 010**	**2 011**	**2 012**	**2 013**	**2014**
Value R Millions	2693.4	2549.5	2760.2	3084.0	2356.8	2897.5	2189.7	1718.7	1530.4	1285.9
Germany (%)	72	76	83	82	93	92	88	74	68	59

Sources: (AIEC, 2007: AIEC, 2015:63)

It is evident in table 1.2 that South Africa had a dominant share in supplying automotive leather interiors to the German vehicle market, seeing that the German vehicle manufacturers are the largest users of South African stitched leather seat parts (ATCG, 2013). South African leather manufacturers have lost a significant share of their German business and are now losing out on future German OEMs' contract business mainly because the APDP does not provide the same level, or type, of incentives that the MIDP had given to the industry, thus making the domestic automotive leather manufacturers not competitive enough.

Insofar as the focus of this study is concerned, the researcher has conducted a comprehensive key word search in the National Research Foundation (NRF, 2015) database in order to identify whether any research dissertations had been undertaken with reference to this topic. To date, no research on the impact of South African automotive policy changes on the domestic leather industry appears to have been done or have been proposed in South Africa.

Under the APDP, which has only been rolled out in 2013, the research problem as postulated comes to the fore, and requires a deeper understanding of its functioning and complexities to establish the impact of South African automotive policy changes on the domestic leather industry.

1.3 Objectives of the study

The following objectives were developed:

1.3.1 Primary objective

The main premise of this study is to determine:

The impact of South African automotive policy changes on the domestic leather industry.

In order to achieve the above mentioned objective, the following secondary objectives will need to be attained.

1.3.2 Secondary objectives

- To research the supply chain used in the South African automotive industry with special reference to the South African leather manufacturers.

- To investigate the impact of the discontinuation of the MIDP policy on the role-players of the South African automotive leather industry.

- To assess the current competitive situation in the South African automotive leather market.

- To research the possible impact of the APDP policy on the South African automotive leather manufacturing industry.

- To contribute to the field of study by identifying areas of further research. Using the information gathered from the survey, some hypotheses will be formulated to help verify and explain the findings. This will be done in chapter 7 of this dissertation.

1.3.3 Hypotheses

A total of 16 hypotheses have been set and these will be tested on the basis of responses to the questions in the empirical survey of this study. These hypotheses are aligned with the primary and secondary objectives of the study as well as with the questions contained in the empirical survey. The hypotheses, as outlined below, will be discussed in chapter 7 to further substantiate the objectives achieved, the conclusions reached and the recommendations made:

HO1: Difference between component manufacturers, stakeholders and OEMs with regards to the value of the MIDP to promote their companies in particular since it was implemented in 1995.

HO2: Difference between component manufacturers, stakeholders and OEMs with regards to the value of the MIDP to promote value addition up to the final stages of the supply chain since it was implemented in 1995.

HO3: Difference between component manufacturers, stakeholders and OEMs with regards to the value of the APDP to promote their companies, in particular, since it was implemented in 2013.

HO4: Difference between component manufacturers, stakeholders and OEMs with regards to the value of the APDP to promote value addition up to the final stages of the supply chain since it was implemented in 2013.

HO5: Difference between component manufacturers, stakeholders and OEMs with regards to their viewpoints on the perceived impact of the first key objective, which is to increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020 and its perceived impact on the domestic leather industry using the criteria listed.

HO6: Difference between component manufacturers, stakeholders and OEMs with regards to their viewpoints on the perceived impact of the second key objective, which is to substantially broaden and deepen the components supply chain and its perceived impact on the domestic leather industry using the criteria listed.

HO7: Difference between component manufacturers and stakeholders with regards to their viewpoints on the impact of challenges that their companies have been subjected to from 1995 – 2012.

HO8: Relationship regarding the manufacturing of leather products for the automotive industry between the three groups (component manufacturers, stakeholders and OEMs) that registered under the MIDP.

HO9: Relationship regarding the association between the type of manufacturer and whether they received any direct benefit from the MIDP.

HO10: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the MIDP via increased orders by any user in the supply chain.

HO11: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the MIDP via increased interest.

HO12: Relationship regarding the manufacturing of leather products for the automotive industry between the three groups (component manufacturers, stakeholders and OEMs) that registered under the APDP.

HO13: Relationship regarding the association between the type of manufacturer and whether they received any direct benefit from the APDP.

HO14: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the APDP via increased orders by any user in the supply chain.

HO15: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the APDP via increased volumes.

HO16: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the APDP via increased interest.

1.4 Rationale of the study

The APDP was designed to develop and assist light registered motor vehicle manufacturers, along with component manufacturers, to increase manufacturing volumes that would, hopefully, lead to an increase in local value addition resulting in an increase in employment opportunities within the automotive value chains in South Africa (DTI, 2013b:5).

Under the APDP, vehicle manufacturers and component suppliers will be encouraged to increase technical expertise and cost efficiencies. According to the ATCG (2013), South African tannery manufacturing facilities are currently being underutilised and there is still capacity for further manufacturing expansion. This is because of a disproportionate portion of hides being exported in the raw or semi-processed state without further beneficiation.

In order to understand the changes/transitions that are occurring in the automotive market in South Africa, it is necessary to understand how the APDP differs from the MIDP. The APDP will focus on volume driven production support rather than on incentivising exports and will consist of the following four pillars (AIEC, 2015:16-18; DTI, 2013e:6):

- The Automotive Investment Scheme (AIS) – taxable cash grant of 20% for OEMs and 25% for component manufacturers, with an additional 5% to 10% based on certain performance objectives and provides a return on the investment in new plant and machinery. Some of the objectives of the scheme are to increase plant production volumes, sustain and encourage employment, and strengthen the automotive value chain within the local industry. It is anticipated that this will also encourage new capital investment in South Africa.

- PI – rebate mechanism (which the original equipment manufacturers [OEMs] will receive). It is a form of tradable duty credit of 55% on the value-added element component, measured from the selling price less the raw material

component. This would be reduced to 50% over five years, with 80% for vulnerable sectors, reducing by 5% from 2015 to 50% by 2020.

- Import Duty - tariffs that will be frozen at 2012 levels (25% on light vehicles and 20% on components).

- Vehicle Assembly Allowance (VAA) – rebate mechanism (enabling vehicle manufacturers, manufacturing more than 50 000 vehicles a year, to import 20% of its components duty free being reduced to 18% over three years). This is done in order to improve economies of scale and further create jobs.

The primary aim of this study will be to assess the impact of the current South African automotive policy changes on the domestic leather industry.

Flowing from this, the study will focus on:

- The two key focus areas of the APDP, they are: to raise manufacturing volumes to 1.2 million vehicles per annum by the year 2020, and to substantially broaden and deepen the components supply chain (DTI, 2013a:4). This will require on-going increases in plant volume thresholds and working with the vehicle manufacturers, or OEMs, to identify areas where greater economies of scale in component sourcing and/or value chain development are possible. The study will, therefore, try and ascertain whether the APDP will contribute or be detrimental to the domestic leather industry by analysing the aims and objectives of the APDP.

- The pillars of value to the South African government, in respect of its policies, are assumed to rest on a valuable local supply chain that enhances value addition and raw material beneficiation in the country, employment creation and exports. In all three areas, the automotive leather industry has performed well over the years and has been a top performer under the MIDP. It used to have one of the highest employment figures for a

component industry, however, according to JALI (2014), the APDP is foreseen to have a significant negative impact on employment levels. Past success sets the bar for the future, and this study will aim to evaluate the changes from the MIDP to the APDP by assessing the pillars of value-creation by assessing the automotive policy changes of the South African government.

1.5 Theoretical background

The theoretical rationale for the research is founded in the area of global strategic management as inter alia based on the work of Aregbeshola, Luiz, Ojah, Oosthuizen, Palmer & Venter (2011); Barney & Hesterly (2010); Hill (2011); Kelly (2009); Kinicki & Williams (2013); Lasserre (2012); Nieman & Bennett (2014); Pearce & Robinson (2013) and other leading authors regarding aspects such as: globalisation of markets and strategies, competitive advantage, and theory and global strategies in marketing and operations.

Over the past 30 years, international trade and investment have grown much faster than the world economy as a whole and firms have multiplied their presence outside their country of origin, employing more and more people, and selling and buying technology internationally (Lasserre, 2012:2). More and more companies and industries are confronted with the need to globalise or die.

South Africa is the European Union's (EU's) largest trading partner in Africa. A comparative analysis of the statistics regarding trade between South Africa and its 15 most important trading partners reveals that the EU-SA trade relationship is, without question, South Africa's most important international trading relationship (Aregbeshola et al., 2011:86). The EU is, therefore, South Africa's most important trading partner with imports and exports that are about three times more than between the North American Free Trade Agreement (NAFTA) and South Africa. In addition, the EU is by far South Africa's most important development partner, providing 70% of all external assistance funds (Aregbeshola et al., 2011:87).

International business background for this study will be inter alia based on the work of Aregbeshola et al. (2011); Cavusgil, Knight & Riesenberger (2014); Daniels, Radebaugh & Sullivan (2011); Hill (2011); Kelly (2009); Mohr, Fourie & Associates (2009); Pearce & Robinson (2013); Robbins, DeCenzo & Coulter (2013) and other leading authors regarding aspects such as: comparative advantage; global business environments and strategies; global business operations; and global supply chain theory.

There are two key objectives of the APDP, one relates to the manufacturing of 1.2 million vehicles per annum by the year 2020, and the other relates to the broadening and deepening of the components supply chain in South Africa. Higher manufacturing volumes, under the APDP, will result in improved economies of scale benefits and contribute towards investment projects becoming more economically viable. International business comprises a large and growing portion of the world's total business. In today's day and age, global events and competition affect almost all companies, large or small, regardless of the industry. This is the result of selling output, and securing supplies and resources from foreign countries, as well as competing against products and services from abroad. For the automotive industry, and in particular the leather industry in South Africa, increased vehicle manufacturing and exports are therefore imperative.

The supply chain management investigation will be inter alia based on the work of Chopra & Meindl (2013); Drake (2012); Du Toit, Erasmus & Strydom (2012); Fawcett, Ellram & Ogden (2014); McKeller (2014); Wisner, Tan & Leong (2012) and other leading theoretical authors regarding aspects such as: supply chain planning and strategies, designing global supply chain networks, and supply chain relationships. These links are not only important upstream but also downstream, the latter in beneficiating or adding value, to the inputs in transforming the inputs to the end product.

The global automotive value chain, which will be analysed in greater detail in chapter 4, is dominated by a relatively small number of domestic OEMs, which are supplied by first-tier suppliers globally. The lower tier suppliers are mainly restricted to their domestic markets and are responsible for supplying sub-components to their first-tier suppliers. Automotive manufacturing in the value chain focuses on passenger cars, light, medium and heavy commercial vehicles and buses, as well as original equipment components and aftermarket, or replacement, parts for these vehicles. All the major OEMs are represented in South Africa. A large number of multinational suppliers, or foreign owned first-tier suppliers, operate in co-operation with South African suppliers, mainly the second and third-tier suppliers via joint ventures, license or technology agreements and other arrangements (Lamprecht, 2009:6).

The one key objective of the APDP is to substantially broaden and deepen the components supply chain in South Africa. The possibilities in a supply chain world are vast, but the challenges that lie along the path to supply chain excellence are equally formidable. A supply chain road map is a process model that provides a guiding framework to help understand the decisions involved in designing a supply chain strategy (Fawcett et al., 2014:19, 20). The complete automotive leather supply chain is in operation in South Africa. The impact of the transition from the MIDP to the APDP, however, will be analysed in this study in order to determine the impact of South African automotive policy changes on the domestic leather industry, and what would be required to ensure its future sustainability and growth.

The aim to establish how theory meets practise in the South African automotive industry context, will be analysed in more detail in chapters 2, 3, 4 and 5 of the dissertation.

1.6 Research design and methodology

Cooper and Schindler (2011:139) define the research design as the blue print for the way in which information will be gathered, measured and analysed in order to answer the research question(s). Saunders, Lewis & Thornhill (2012:159) define the

research design as the general plan of how the researcher would go about answering research question(s).

This research study will follow a positivistic philosophy with a deductive approach. It will have a mixed methods research design by using an embedded mixed methods approach. A combination of exploratory research via the literature study, and descriptive research via the empirical survey has been used to complement each other. The literature study includes a study of the South African leather industry within the local and global automotive industry, focusing on the evolution of automotive policies from the pre-MIDP policy regime to the MIDP policy regime, which will focus on the success of the domestic leather industry under the MIDP. The literature study continues to examine the current automotive policy regime implemented in January 2013, namely the APDP, and assess the impact of South African automotive policy changes on the domestic leather industry.

The scope of the empirical research involves an empirical survey of the two operational automotive tanneries and the two that have shut down operations during the course of 2014, the four major sewing plants (the two still operating in South Africa and the two that have relocated to Lesotho in 2015), the seven OEMs, the two major chemical companies, two other tanneries manufacturing other leather products, one representative from the ATCG and one from JALI. The research design and methodology will be discussed in greater detail in chapter 6 of the dissertation. Various statistical analyses will be conducted on the data in order to facilitate a discussion of the research results. Descriptive and inferential statistical analysis will be done using Statistical Package for Social Sciences (SPSS) and Excel computer programmes. The importance of the empirical research is that it aims to focus on the primary and secondary objectives of the study.

The empirical survey includes a pilot study being conducted with one academic who has completed a Doctoral degree in the automotive industry, in order to critique the questionnaire. Face-to-face interviews, as well as a questionnaire, were distributed

to all participants in order to obtain a comprehensive perspective on the impact of South African automotive policy changes on the domestic leather industry.

1.7 Limitations of the study

There are currently a few limitations that exist in this study. The first limitation is that there are a limited number of role-players in this industry. Hence, the number of respondents are limited. The limitations of the study further relate to the APDP, which has only commenced in 2013, and because thereof, the functioning of the APDP is still open for evaluation. This study will, therefore, mainly focus on the impact of the transition from the MIDP to the APDP on the domestic leather industry.

1.8 Chapter layout

Chapter 1 will cover the background to the study; articulate the research problem, objectives and purpose of the study and the limitations of the study.

Chapter 2 will focus on government automotive policy regimes from the pre-MIDP policy period and then through the MIDP to the APDP policy regime. Chapters 2, 3 and 4 all relate to the practical aspects of policy decisions in the South African automotive industry.

Chapter 3 will entail a critical review of the literature available on the South African leather industry from the pre-MIDP policy period and then through the MIDP to the APDP policy regime change.

Chapter 4 will review and provide the dynamics and trends of the South African automotive industry in the global automotive environment while keeping focus on the domestic leather industry.

Chapter 5 will entail a critical review of the relevant academic literature available on the competitiveness theory, international business and sustainable competitive

advantage, as well as supply chain management as it applies to the South African automotive industry. This chapter links the previous three chapters to the background theory needed to understand the relationship between theory and practise.

Chapter 6 will cover the research process, philosophy and approach, principles, design and methodology.

Chapter 7 will provide the data analyses, inferential analysis and hypotheses testing, and interpretation of data of the empirical research undertaken. Furthermore, hypotheses testing will be conducted once the data set has been evaluated.

Chapter 8 will entail the findings and recommendations of the study regarding the impact of South African automotive policy changes on the domestic leather industry.

Chapter 2

Government Policy (MIDP and APDP)

2.1 Introduction

Chapter 1 introduced the study regarding the impact of South African automotive policy changes on the domestic leather industry. In that chapter, the problem statement and the justification for the study were provided. Chapter 2 focuses on the way in which the South African government influences the motor industry through initially the MIDP and later the APDP policies. The MIDP will be discussed first, in great detail, and the chapter will provide background information as to the rationale why the MIDP was implemented, the aim and objectives of the MIDP, operations of the MIDP, the two MIDP reviews, the unintended problems and positive outcomes of the MIDP and a summary of the MIDP. Chapter 2 goes further to introduce and explain the introduction of the APDP, why there was a need to change the policy regime from the MIDP to the APDP, the pillars that will drive the APDP, the core aspects of the APDP, and then an analysis of the objectives of the APDP will be discussed. This will provide a broad overview of the current operational environment for the automotive industry under which the relevant stakeholders are operating.

2.2 Background to the Motor Industry Development Programme (MIDP)

Since the early 1920's, the South African automotive industry has been through a number of policy reforms. The performance and development of the South African automotive industry has been promoted by a change in government support and the liberalisation of trade throughout the years (Damoense & Simon, 2004:251). Table 2.1 reveal the automotive policy development in South Africa leading up to the MIDP and then to the APDP.

Table 2.1: Summary of automotive policy development in South Africa

Period	Key automotive policy instruments	Development and comments
1910	The import duty on cars was set at 15% ad valorem, with a 3% rebate facility, and on aftermarket components was set at 20% ad valorem (ITAC, 1949:62).	(1913) Chevrolet started to distribute cars in South Africa (Botha as cited by Lamprecht, 2006a:53).
1913	An increase of the import duty on cars to 20% ad valorem, with a 3% rebate facility (ibid, 1949:62).	
1924	An increase in the import duty on passenger cars to 20%, 22% and 25% ad valorem. The higher duties applied to the higher valued cars. The 3% rebate facility was withdrawn on British cars (ibid, 1949:62). An increase in the import duty on assembled or unassembled trucks from 3% ad valorem to 20% ad valorem and on chassis for these vehicles, assembled or unassembled, to 5% ad valorem (ibid,1949:69).	(1924) Establishment of Ford Motor Company of South Africa. The coastal location allowed for the easy importation of components (ITAC, 1949:5). Model T assembly comprised 13 000 units in 1924 (Swart, 1974:164).
1926	A reduction of the import duty on chassis for bodies from 20 to 10% ad valorem in order to promote domestic body manufacturing (ibid, 1949:63). The first reference to used cars in the tariff. The import duties on used cars	(1926) Establishment of General Motors South African Limited (ITAC, 1949:5).

	were set at similar rates to those for new cars (ibid, 1949:66). A reduction of the import duty on parts and materials for chassis and bodies for cars to 15% ad valorem, subject to certain conditions (ibid, 1949:64).	
1929	A reduction of the import duty on assembled or unassembled chassis on trucks from 5 to 3% ad valorem (ibid, 1949:67).	(1929) The South African Bureau for Labour Statistics indicated that the automotive industry showed the greatest instability of employment of all the industries. The changing of models annually, which caused certain plants to close down for a month, the perception of automotive assembly as low and semi- skilled, as well as low unemployment rates at the time were reasons mentioned for this phenomenon (ibid, 1949:35).
1931	Provision made for the first rebate facility for the importation of certain parts and materials for the assembly of cars as well as bodies for cars (ibid, 1949:73, 74).	
1932	An increase in the import duty on cars by an additional 5% (ITAC, 932a:3).The imposition of an exchange dumping duty on cars from the UK and Canada (ibid,1932b:2).	
1934	Various rates of protective duties on identifiable automotive components recommended and implemented based on industry petitions (ITAC, 1949:71–73). Provision was made for unassembled chassis for cars, set at 10% ad valorem, and for bodies, parts and materials, set at 12.5% ad valorem (ibid, 1949:65).	(1933) Vehicle assembly by Ford and General Motors increased to 33 000 units per annum (Swart, 1974:164). (1934) Long-term automotive policy was still to encourage domestic manufacturing of automotive components as well as for the import duty difference between assembled and unassembled cars not to be too big (ITAC, 1960:29, 83).

1939	The ad valorem import duties on cars, chassis and body parts were switched to specific duties at rates equal to the ad valorem duty rates (ibid, 1949:62).	(1939) Establishment of National Motor Assemblers Ltd in Johannesburg. The company assembled various vehicles on contract for several overseas OEMs. Components such as glass and tyres were being manufactured both as original equipment and for the replacement market (Swart, 1974:164). The average South African vehicle age was 5.5 years (ITAC, 1949:13).
1947	The specific import duties were switched back to ad valorem duties as well as increased to 25% and 30% ad valorem on cars. The higher duties applied to the higher valued cars (ibid, 1949:63).	(1943 to 1945) Imports and assembly of cars came to a standstill owing to World War II (ITAC, 1960:15). (1947) Five assembly plants were operational in South Africa with a capacity design of 83 000 units. All plants focused on US brands, except for General Motors, which also assembled the British Vauxhall (ITAC, 1949:6, 7). (1947) South Africa was ranked seventh out of 141 countries in terms of global vehicle use with a ratio of 26 persons per one car (ibid, 1949:5). (1948) The first installation of moving production lines took place at General Motors and Ford (ibid, 1949:38). (1948) A high rate of imports led to problems with the

		balance of payments. Import control was instituted through the granting of monetary quotas. This limited the number of imported vehicles and CKD kits (Swart, 1974:164)
1956	An excise duty was introduced on cars based on vehicle mass (ITAC, 1960:59).	(1950–1957) Passenger vehicle sales averaged 36 000 units per annum. When the import quotas were eliminated sales increased to 100 000 units in 1957 (Swart, 1974:164). (1958) South Africa was ranked ninth in the world's passenger car parc (number of registered vehicles), above other vehicle- producing countries such as Brazil, India, Japan and various European countries (ITAC, 1960:9). (1958) Eight OEMs operated in South Africa, of which five were foreign owned and assembled 75% of total vehicles assembled. Three OEMs assembled vehicles on contract on behalf of other companies. Seven of these firms were situated at the coast with the component manufacturers in close proximity. The increase in the local content of vehicles, from single digit levels to 18%, was regarded as a
1959	Recommendations were made to develop the automotive industry in South Africa. These recommendations included an increase in the duty on passenger cars and light commercial vehicles; to levy an excise duty on domestically assembled vehicles and completely knocked down (CKD) kits; to provide additional protection to domestic component manufacturers; and to create rebate provisions subject to local content requirements (ibid, 1960:85).	

		significant process of evolution (ibid, 1960:15, 22).
1961–1963	Phase I of the local content programme was introduced with the objective to increase local content in mass from 15 to 40% (ITAC, 1988:4). The ad valorem duty on imported motor cars was set at 35% plus an additional percentage up to a maximum of 100%, depending on the value and the weight of the car. The level of excise rebates on motor cars varied between 15% (for a local content of between 25% and 30% by weight) and 75% (for a local content of more than 70%). Components generally attracted a duty of 20% ad valorem (ITAC, 1965:2).	(1960) South Africa produced 120 000 vehicles, more than any other developing country in the world. The local content level was only 20% (Black, 2007:73). (1963) The main competition for the domestic vehicles did not stem from imported cars but from other domestically assembled vehicles with a lower local content. The position vis-à-vis a competitor was broadly determined by the degree to which the cost premium attached to the higher priced domestically sourced components were offset by the additional excise rebates for the higher local content (ITAC, 1965:2).
1964–1969	Phase II of the local content programme was introduced to increase the nominal local content in mass from 45% in 1964 to 55% 1969. This was equivalent to a 50% net local content, as redefined. The determination of the net local content was complicated and required government approval for certain parts, sub-assemblies or	(1964) Record new vehicle sales of 143 373 units was achieved in the domestic market (ibid, 1965:7).

	materials, as local content (ITAC, 1988:4; ITAC, 1965:22).	
1971–1976	Phase III of the local content programme was introduced, with a minimum net local content of 52% at the beginning of 1971, to increase to 66% on 1 January 1977 (ITAC, 1988:4).	(1975) The 13 OEMs operating plants in South Africa assembled 39 models and were supplied by 300 automotive component manufacturers. The GDP contribution of the automotive sector was 3.3% (ITAC, 1977:8-70).
1977–1978	Phase IV of the local content programme comprised a two-year "standstill" phase. This was to assist industry in consolidating its position after the severe narrowing of profit margins during the previous three years (ibid, 1988:4).	(1979) Disinvestments by General Motors and Ford occurred owing to the sanctions against South Africa (Gelb, 2004:41–45). (1976–1986). The number of OEMs decreased from 16 to seven and the number of models produced from 53 to 20. This was owing to recessionary conditions, the significant devaluation of the rand in 1984 and 1985 and escalating domestic inflation. All seven OEMs recorded losses in 1985 (ITAC, 1988:26, 63, 64).
1980–1988	Phase V of the local content programme was introduced with a minimum net local content of 66% by mass, in respect of motorcars, and 50% by mass, in respect of light goods vehicles and minibuses (ibid, 1988:7).	(1980–1984) Locally manufactured engines, gearboxes and axles for commercial vehicles were introduced. ADE and ASTAS were accorded the rights to be the sole manufacturers for the engines and gearboxes, respectively, for commercial vehicles. The ADE

		engine had a price disadvantage of 100% against the free on board value of an imported engine. A total of 19 commercial vehicle assemblers operated in the domestic market (ITAC, 1985:8-10).
1989–1995	Phase VI of the local content programme was introduced and involved a radical change in the calculation of local content based on value as opposed to mass. Phase VI encouraged local OEMs to increase local content from an industry average estimated at 55% at the inception of the programme to 75% (including exports) by the year 1997. Phase VI sought to reduce the foreign exchange used by the vehicle manufacturing industry by about 50% over the period 1989 to 1997. Local content was defined as the ex-works price less foreign currency used, including profit and overheads. This meant that pricing could be used to create local content. The import duty on aftermarket parts and components for motor vehicles was increased to 50% ad valorem and on passenger cars to 100% ad valorem, whether or not assembled. Exports were allowed and accounted to be part of the local content value. An excise duty of 40%	(1989) A budgetary constraint was placed on Phase VI in that the programme had to be self-funded. Thus the ordinary excise duty and excise duty rebate had to be equal (ITAC, 1992:2). (1991–1994) Samcor exported vehicles from South Africa in 1991, Volkswagen in 1992 and BMW in 1994 (Damoense & Alan, 2004:264). (1992) Price comparisons of passenger cars between South Africa and Germany, Japan, the USA, the UK and Australia reflected a South African price disadvantage of up to 72%. The lowest- priced car category prices were competitive but in the higher-priced categories the price inelasticity enabled OEMs to achieve higher margins (IDC, 1993:15–17). (1993) The seven OEMs produced 39 different passenger car and light commercial vehicle models (MITG,

	on the value of locally assembled vehicles applied, of which up to 37,5% was rebated based on the local content level (ITAC, 1989:26–33). The effective rate of protection for the industry was calculated to be in excess of 400% (MITG, 1994:31).	1994:35).
1994	A reduction of the import duty on passenger cars to 80% ad valorem from 1 January 1994 (ITAC, 1994:1).	
1995	A reduction of the import duty to 75% ad valorem on passenger cars from 1 January 1995. The payment of a 15% surcharge on passenger cars and 5% on commercial vehicles was exempted (ibid, 1994:1). Implementation of the MIDP.	The focus of the study.
2013	Implementation of the APDP	The focus of the study.

Source: (Lamprecht, 2009:208-212)

As revealed in table 2.1, a major step in government intervention was the implementation of the MIDP on 1 September 1995 by the South African government. Prior to the MIDP, between 1961 and 1989, five distinct phases of government support were identified via local content programmes. They featured continued domestic market protection and a variety of incentives and requirements for increased local content. Phase VI of the local content programmes, between 1989 and 1995, involved a radical change in the calculation of local content based on value as opposed to mass while exports were allowed and accounted for as part of the local content value. The MIDP followed the same direction taken by phase VI and incorporated the principle of export complementation. However, it abolished

local content requirements and introduced a tariff phase down (Black, 2001:7; Lamprecht, 2006:61; AIEC, 2013:17). The rationale for the implementation of the MIDP will be discussed next.

2.3 Rationale for the implementation of the MIDP

The change in policy to the MIDP was particularly owing to the dismal performance of the South African automotive industry throughout the 1970‘s and 1980’s because of economic sanctions that were placed on South Africa. There were disinvestments by the major automotive manufacturers, the domestic manufacturers did not have access to the latest technologies and there were no economies of scale for the domestic manufacturers. The government needed to seriously improve the performance of the domestic automotive industry and this spurred them on to introduce the MIDP which, at that time, also had to comply with the rules and regulations of the GATT, which was established under the Uruguay Round in 1994.

South Africa was reintegrating into the global economy and the MIDP guided the automotive industry to adjust to the transition. The MIDP represented a moving frontier, as it wanted to reshape and restructure the future direction of the domestic automotive and associated industries. The domestic automotive industry was transforming into becoming globally a lot more globally competitive with its vehicle and components manufacturing, and trying to capture international markets rather than being complacent as a generally inefficient, dominantly protected and inward focused industry.

In pre-1995 South Africa, there was a large number of small assembly plants manufacturing vehicles with a wide range of models and in un-economically low volumes. The price of passenger cars in South Africa, in comparison to other countries such as: Germany, Japan, Australia, the USA and the United Kingdom (UK), revealed a South African price disadvantage of up to 72% (Lamprecht, Rudansky-Kloppers & Strydom, 2011:68). Moreover, the programme seemed to be more advantageous to those companies that were subsidiaries of overseas OEM

parent companies. Because of this, foreign owned subsidiaries could transfer goods, technologies and tooling backwards and forwards with great ease in comparison to wholly South African-owned OEMs. However, the critical issues that were impacting the scale of manufacturing in the automotive component sector and the proliferation of makes and models in the domestic market were not addressed (Lamprecht et al., 2011:68).

In 1992, the Motor Industry Task Group (MITG), a team of industry experts, was appointed by the South African government to counsel them on the long-and-short term strategies to ensure the future of the automotive industry (Kaggwa, Pouris & Steyn, 2007:682). The task group was instructed to prepare a policy that would ensure continued industry growth in a liberalised trade environment that addressed the challenges of the local content policies. The MITG's recommendations entailed that the extent to which manufacturing participants would be able to import components duty free, would be determined by each plant's achievement of minimum manufacturing volumes per model and its ability to export (Lamprecht, 2006:62).

In 1994, the Board of Tariff and Trade (BTT) had to strategize a revised customs dispensation programme for light and heavy vehicles. The initial MITG report had to be consulted by the new dispensation, and feedback had to be provided. The final draft of the revised customs dispensation, which was implemented by the BTT for the automotive industry, came to be known as the MIDP. The MIDP was based on Australia's Button Car Plan, with specific focus on tariff reform and export facilitation. The MIDP was implemented after a consultative process occurred and all stakeholders concurred that the MIDP provided the required impetus to develop the industry in a liberalised trade environment (Kaggwa, Pouris & Steyn, 2004:2).

The MIDP, which was implemented in the post-apartheid trade policy environment, was formulated to assist the industry in adjusting and increasing its competitiveness and consisted of four key features (Flatters, 2005:2):

- The import duties on vehicles and automotive components to be gradually reduced.
- An import-export complementation scheme, which transferred tradable credits in the form of Import Rebate Credit Certificates (IRCCs) to vehicle and component manufacturers. These credits were then used to reduce the import duties on any vehicles or automotive components that manufacturers desired to import.
- Exporters were allowed entry in to the standard duty drawback program. This meant that a rebate could be claimed for any import duties paid in relation to automotive components and intermediate inputs utilised in exported vehicles and automotive components.
- Imported original equipment components had a 27% Duty Free Allowance (DFA) on the value of vehicles manufactured for the domestic market.

The programme revolved around the ideology of achieving economies of scale through exporting a smaller range of products that would be globally competitive, and incentive subsidies would be provided to assist in rationalising manufacturing (Flatters & Netshitomboni, 2006:2). All other products would be imported. At the same time, there would be a gradual reduction in the level of protection and size of incentives by means of a system of reductions in the import duties on vehicles and components.

2.4 Aim of the MIDP

The key feature of the MIDP was the introduction of the import-export complementation incentive scheme. In essence, it simply meant that firms that had access to the domestic market could augment their volumes by means of directly or indirectly exporting through their value chain (AIEC, 2013:17). Moreover, by having a reduction in incentives over time, the MIDP could be classified as a moving frontier. The main aim of the MIDP was to promote the domestic OEMs to specialise in one or two high-volume models, achieve economies of scale benefits to export at much more competitive prices, and in turn import the models not assembled in the domestic market at low to duty free levels (Lamprecht, 2006:64).

2.5 Objectives of the MIDP

The MIDP was focused on developing the domestic automotive industry in becoming much more internationally competitive in a liberalised trade environment. The primary objectives of the MIDP included (Barnes & Morris, 2000:2; Damoense & Simon, 2004:254; Lamprecht, 2006:64; AIEC, 2013:17):

- "To develop a globally integrated and competitive domestic automotive and component industry.
- To stabilise long-term employment levels in the industry.
- To improve the costing and quality of vehicles and components to the domestic and international markets.
- To further promote the increase of automotive exports and to improve the sector's trade balance.
- To enhance the country's economic activity by an increase in manufacturing".

The major policy instruments to achieve these objectives have been (DTI, 2003a:10; Bronkhorst, 2010:12; AIEC, 2013; 17):

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

The MIDP had been reviewed and extended twice. This will be discussed next.

2.6 MIDP reviews 1999 and 2002

Since its inception, the MIDP had been subjected to two reviews, the first in 1999 and the second in 2002. The purposes of the two reviews were aimed at corrective action in ensuring that the industry was encouraged towards sustainable future growth. The first review in 1999 extended the programme to 2007 and the second review in 2002 extended it to 2012. The main feature of the two reviews was, predictability, in the incentive scheme, which meant a decline in trade facilitation support and a gradual decline in import tariffs, with CBU and CKD duties reaching 25% and 20% respectively by 2012 (Barnes, Klapinsky & Morris, 2003:6).

2.6.1 1999 MIDP Review

The initial phase of the MIDP occurred from September 1995 to June 2000 and, in July 1999, the Mid-Term review of the MIDP was concluded. It highlighted pertinent changes to the programme in an attempt to address the challenges of globalisation and the changes in technologies that were occurring. This led to the second phase of the MIDP, effectively July 2000, which concluded in 2007.

The initial phase of the MIDP was basically a follow up of the previous industry policy (Phase VI of the Local Content Programme) in terms of export facilitation; namely the import-export complementation (IEC) scheme, which transferred tradable credits that could be utilised to reduce import duties, which in effect reduced the industry's import duty liability. The IEC scheme provided the platform for OEMs to generate sufficient foreign exchange through exports to offset foreign exchange used to import vehicles and automotive components. Moreover, the import duties payable on CBUs and automotive components could be rebated by the qualifying value of eligible exports (Damoense & Simon, 2004:255). The idea was basically not to put pressure on the South African monetary unit (the Rand) and to relieve the strain on the foreign exchange reserves of the country.

Other features that were included under the MIDP were: a tariff phase-down programme for CBUs and automotive components, as well as government support schemes in the form of the Small Vehicle Incentive (SVI) scheme and Duty Free

Allowance (DFA). Since 1995, the composition of the automotive market in South Africa had changed towards the manufacturing of smaller, cheaper and fuel-efficient models that was promoted by the SVI allowance under the MIDP. A duty free allowance in the SVI was granted in respect of motor vehicles below a net ex-factory selling price of R40 000 to encourage the manufacture of more affordable light motor vehicles. The incentive was calculated to be 3% for every R1 000 below a vehicle price qualifying value of R40 000 (Lamprecht, 2006:66). The prices of entry-level vehicles were reduced because of the SVI, however, it also caused distortions in the small vehicle market segment because higher wage costs were imposed on the domestic industry and it increased the proliferation of vehicle models. Price trends had revealed that the SVI had lost its momentum and was phased out in 2007.

The DFA was a subsidy that assisted in importing high value automotive components that were not readily available domestically. The DFA in South Africa was equal to 27% of the manufacturers' wholesale vehicle price, and could be used to offset the duty payable on components that were imported and used in the manufacturing of vehicles for the domestic market. The purpose behind the DFA was that manufacturers would aim to manufacture more vehicles domestically, for the domestic market, to take advantage of benefits from the importation of vehicles (Bronkhorst, 2010:27). Therefore, manufacturing volumes have increased and the cost per unit has decreased.

A new investment incentive was introduced in the year 2000 in the form of the Production Asset Allowance (PAA). The PAA was introduced to encourage automotive investment in world-class productive assets as a means of achieving global competitiveness (Kaggwa, Pouris and Steyn, 2007:682). The main objective of the PAA was to improve industry performance by rationalising the number of vehicle platforms (Bronkhorst, 2010:28). Thus, manufacturers would be able to specialise and increase the number of units manufactured domestically. The PAA started as a relatively small incentive and gained huge attraction as an acceptable and viable means in which the automotive industry could be supported by government, taking into account the potential challenges of MIDP demand side

incentives. In essence, demand side incentives are considered to be market distorting because they give undue advantage to the industry in the sale of its products in a particular market, and that is a contravention of international trade policies (Kaggwa et al., 2007:682). A government that offers import rebates based on the value of exports is an example of a demand side incentive.

South African manufacturers of specified light motor vehicles could have earned the PAA rebate, as long as they were registered with the South African Department of Trade and Industry under the MIDP. Component manufacturers who made investments in productive assets could have qualified for the rebate but had to ensure that the requirements, such as, any components that were to be manufactured should have been supplied to a qualified vehicle manufacturer for fitment in to a PAA based vehicle, were fulfilled.

The calculation of the incentive was based on the value of the investment in productive assets. Vehicle manufacturers in the Southern African Customs Union (SACU) received 20% on the value of their investment. The PAA was a non-tradable duty credit; the benefit was divided over five years at 4% every year and could be used to reduce the import duty liability on light motor vehicles. OEMs were at liberty to use the duty credit against CBU imports only, which helped to maintain the range of products that the consumer was being offered (Lamprecht, 2009:227).

The PAA provided 80% of the value to be transferred to the component manufacturer, as long as they invested in the SACU region. According to the PAA statute, vehicle manufacturers were required to transfer 80% of the value of the IRCCs on to the investing component manufacturer. The 20% duty that remained, was stored by OEMs for investments that would serve as encouragement for strategic automotive component investments being attracted to supply domestic manufacturing plants (Lamprecht, 2009:227). The nature of the productive assets to be included, had to consist of the latest technology manufacturing equipment. This included: new or unused robotised body shops; paint plants that utilise environmentally certified materials as demanded by destination countries; assembly

lines; logistical material handling systems fully integrated and suitable with external suppliers' plant; and even tooling and machinery needed to localise suitable components in support of the business plan.

2.6.2 2002 MIDP Review

The 2002 review intended to provide an extended period of policy certainty. Although the industry was receiving reduced support from government and trade liberalisation was expanding, the industry would still be adequately protected and aided by the government. The MIDP ended its third phase that occurred from 2008 to 2012. Tariffs on CBUs had declined from 30% in 2007 to 25% in 2012, and on automotive components had declined from 30% in 2007 to 20% in 2012 (Damoense & Simon, 2004:266). The IEC scheme had phased down up to 2009 and import duty rebates had continued at 70%, with regards to the value of all eligible exports, until 2012. In 2009 the Automotive Investment Scheme (AIS) replaced the PAA. The technical parameters of the MIDP from 1995 to 2012 will now be discussed.

2.7 Technical parameters of the MIDP

Table 2.2 reveal the technical parameters of the MIDP in respect of: the tariff phase down for light vehicles (LVs – passenger cars and light commercial vehicles); medium and heavy commercial vehicles (MCV/HCVs); Completely Knocked Down (CKD) kits, also defined as original equipment components; the eligible qualifying values derived from exports under the MIDP; as well as investment benefits in terms of the PAA, which was the automotive specific investment incentive.

Table 2.2: Technical parameters of the MIDP (1995 – 2012).

				Value of export performance			Ratio of exports vs. imports			
Year	CBU Duty %	CKD Duty %	DFA %	CBUs %	Components %	Qualifying PGM value %	HCV & tooling & components vs. CBU LV	Vehicle & tooling & components vs. HCV & tooling components	CBU LV vs. CBU LV, HCV & Tooling & components	PAA /AIS %
1995	65	49	27	100	100	100	100:75	100:100	100:100	-
1996	61	46	27	100	100	100	100:75	100:100	100:100	-
1997	57,5	43	27	100	100	100	100:75	100:100	100:100	-
1998	54	40	27	100	100	100	100:75	100:100	100:100	-
1999	50,5	37,5	27	100	100	90	100:75	100:100	100:100	-
2000	47	35	27	100	100	80	100:70	100:100	100:100	20
2001	43,5	32,5	27	100	100	60	100:70	100:100	100:100	20
2002	40	30	27	100	100	50	100:65	100:100	100:100	20
2003	38	29	27	94	94	40	100:60	100:100	100:100	20
2004	36	28	27	90	90	40	100:60	100:100	100:100	20
2005	34	27	27	86	86	40	100:60	100:100	100:100	20
2006	32	26	27	82	82	40	100:60	100:100	100:100	20
2007	30	25	27	78	78	40	100:60	100:100	100:100	20
2008	29	24	27	74	74	40	100:60	100:100	100:100	20
2009	28	23	27	70	70	40	100:60	100:100	100:100	20-30
2010	27	22	27	70	70	40	100:60	100:100	100:100	20-30
2011	26	21	27	70	70	40	100:60	100:100	100:100	20-30
2012	25	20	27	70	70	40	100:60	100:100	100:100	20-30

Source: (Lamprecht, 2009:229)

As revealed in table 2.2, the MIDP involved a gradual reduction in support of the South African automotive industry in order to facilitate its integration into the global automotive environment. The key features of the MIDP, therefore, were reduced protection along with export subsidies that were able to offset import duties. The purpose of gradually reducing tariffs and encouraging exports was directed at attaining a higher degree of specialisation and economies of scale, as well as improving productivity, which would increase the competitiveness of the domestic automotive industry. It must also be mentioned that with regards to the tariff-phase down in South Africa, it was occurring at a faster rate than prescribed by the WTO, that is, 50% ad valorem on CBUs and 30% ad valorem on components (Lamprecht, 2009:229).

Table 2.3 summarises the Import Rebate Credit Certificate (IRCC) benefit, or value, derived from the export of CBUs or automotive components to the exporter in the importation of CKD kits.

Table 2.3: IRCCs on CKD kits imports (1995 - 2012).

Year	Export value	Value portion	CKD duty%	Import rebate for OEMs	Independent exporters' OEM portion	Value to independent exporters'
1995	100	1	49	49	9,8	39,2
1996	100	1	46	46	9,2	36,8
1997	100	1	43	43	8,6	34,4
1998	100	1	40	40	8,0	32,0
1999	100	1	37,5	37,5	7,5	30,0
2000	100	1	35	35	7,0	28,0
2001	100	1	32,5	32,5	6,5	26,0
2002	100	1	30	30	6,0	24,0
2003	100	0,94	29	27,26	5,452	21,808
2004	100	0,9	28	25,20	5,04	20,16
2005	100	0,86	27	23,22	4,644	18,576
2006	100	0,82	26	21,32	4,264	17,056
2007	100	0,78	25	19,50	3,9	15,6
2008	100	0,74	24	17,76	3,552	14,208
2009	100	0,7	23	16,10	3,22	12,88
2010	100	0,7	22	15,40	3,08	12,32
2011	100	0,7	21	14,70	2,94	11,76
2012	100	0,7	20	14	2,8	11,20

*Assuming that independent exporters are able to negotiate an 80:20 ratio on the value of their IRCCs when trading with the OEMs.

Source: (Lamprecht, 2009:230)

Table 2.3 revealed that the benefit accrued under the MIDP amounted to 39.2% in 1995 and had reduced to 11.2% in 2012. This meant that the industry had to improve

its competitiveness, productivity and efficiency annually as the MIDP progressed because the benefits were being reduced.

Table 2.4 summarises the IRCC benefit, or value, derived from the export of CBUs or automotive components to the exporter in the importation of CBUs.

Table 2.4: IRCCs on CBU imports (1995 - 2012).

Year	Export value	Value portion	CBU adjustment	CBU duty%	Import rebate for OEMs	Independent exporters' OEM / Importer portion	Value to independent exporters'
1995	100	1	0,75	65	48,750	9,750	39,0
1996	100	1	0,75	61	45,750	9,150	36,6
1997	100	1	0,75	57	43,125	8,625	34,5
1998	100	1	0,75	54	40,500	8,100	32,4
1999	100	1	0,75	50,5	37,875	7,575	30,3
2000	100	1	0,70	47	32,900	6,580	26,32
2001	100	1	0,70	43,5	30,450	6,090	24,36
2002	100	1	0,65	40	26,000	5,200	20,8
2003	100	0,94	0,60	38	21,432	4,2864	17,1456
2004	100	0,9	0,60	36	19,440	3,888	15,552
2005	100	0,86	0,60	34	17,544	3,5088	14,0352
2006	100	0,82	0,60	32	15,744	3,1488	12,5952
2007	100	0,78	0,60	30	14,040	2,808	11,232
2008	100	0,74	0,60	29	12,876	2,5752	10,3008
2009	100	0,7	0,60	28	11,760	2,352	9,408
2010	100	0,7	0,60	27	11,340	2,268	9,072
2011	100	0,7	0,60	26	10,920	2,184	8,736
2012	100	0,7	0,60	25	10,500	2,100	8,40

Assuming that independent exporters are able to negotiate an 80:20 ratio on the value of their IRCCs when trading with the OEMs or independent importers. This benefit excludes the savings that the importer achieve on the excise or fiscal duty, which would provide a further benefit of between 0.5% and 25% of the CBU duty applicable each year.

Source: (Lamprecht, 2009:231)

Table 2.4 revealed that the benefit accrued under the MIDP amounted to 39% in 1995 and had reduced to 8.4% in 2012. This meant that the industry had to improve its competitiveness, productivity and efficiency annually as the MIDP progressed because the benefits were being reduced.

The unintended problems and positive outcomes of the MIDP will be discussed next.

2.8 Unintended problems and positive outcomes of the MIDP

The MIDP, like any other policy, had its advantages and disadvantages. Whilst the MIDP had been successful in increasing exports, it fell short in certain other aspects, such as: decreasing imports and, even more critical, why there was a need to change the programme. The key feature of the MIDP was the IEC scheme, but under WTO rules export incentives are prohibited, which made the MIDP vulnerable because it could be challenged. According to Engineeringnews (2007:1), any subsidies linked directly to exports, or local content, are viewed as so-called “red light subsidies” by the WTO and can be subject to a fast-track complaint mechanism.

“Green light subsidies” are regarded as fully WTO compliant (Engineeringnews, 2007:3). They include subsidies related to research and development, environmental protection, and/or subsidies to very poor regions within countries. “Orange light subsidies” are potentially non-compliant, but the burden of proof shifts to the affected party (Engineeringnews, 2007:3). In other words, the party must be able to prove the manner in which they have been affected by these regulations. Every automotive industry in the world enjoys some form of protection from their government, so there is limited risk in actually being challenged under this subsidy. “Red light subsidies” are not WTO compliant. In 2005, Australia threatened to challenge the MIDP at the WTO concerning the export of stitched leather seat parts under the MIDP, which was regarded as a prohibitive subsidy under the WTO.

According to JALI (2014), at that time, automotive leather was to be removed from the MIDP equation in order to protect other industries under the MIDP, which led to

the restructuring of the MIDP. A new agreement was negotiated between the DTI of South Africa and the Australian government, which forced the DTI to investigate alternative incentive schemes that will be WTO compliant. Moreover, from 2006 all South African exports of stitched leather seats were capped and no longer allowed to Australia under the MIDP, which meant the end of a growing US$250 million per annum export to that country (JALI, 2014). This sent out negative messages to the outside world that the South African automotive leather industry was under threat. Not knowing what incentives would be forthcoming under the, then proposed APDP, automotive leather would receive much less incentives, which had caused OEMs to start scaling down their purchases from South Africa

The MIDP has been regarded as having a negative and positive influence on the domestic automotive industry. On the downside, there have been certain negative outcomes that have been identified:

- Although there was an increase in total vehicles manufactured, it was marginal at an annual average increase of 1.85% since 1995 (NAACAM, 2013).
- Total employees registered with NAAMSA declined from 38 600 persons in 1995 to 30 120 in 2013 (NAAMSA, 2014).
- The trade deficit increased from R12.2 billion in 1995 to R42.3 billion in 2013 (AIEC, 2014:80).
- It provided demand side incentives which are considered to be market distorting.

Negative outcomes to the South African leather industry because of the MIDP (Ballard, 2001:23; ATCG, 2014) include:

- There has been a shortage of high quality hides in the domestic market.
- Hide prices have fluctuated because of the shortage of hides, which actually raised prices more.
- There were no rules, regulations and protection against the export of good quality hides.

On the upside of the MIDP, there have been a lot of positive outcomes that occurred in South Africa (AIEC, 2013:20):

- Total vehicles manufactured increased from 389 392 units in 1995 to 539 538 units in 2012. An increase of more than 38%.
- Total new vehicle sales increased from 399 967 units in 1995 to 624 035 units in 2012. An increase of more than 56%.
- OEMs' capital expenditure increased from R847 million in 1995 to R4.7 billion in 2012. An increase of more than 450%.
- Total number of vehicles exported between 1995 and 2012 is equal to 2 411 277 units. This has increased from 15 764 units being exported in 1995 to 277 893 units in 2012. An increase of more than 15 000%.
- Total nominal export value of vehicles and automotive components between 1995 and 2012 is equal to R772.2 billion.
- Export destinations for vehicles and components increased from 62 in 1995 to 152 in 2012. An increase of more than 145%.
- Total employment within the components manufacturing have increased from 60 800 persons in 1995 to 70 000 persons in 2012, representing an increase of more than 15%. Total employment within retail increased from 128 000 persons in 1995 to 200 000 persons in 2012, representing an increase of more than 56%.
- Total number of vehicle model platforms decreased from 41 to 13, representing a decrease of more than 68%.
- A 19.5% growth-rate compounded annually in nominal rand value terms for CBUs and automotive component exports, has been achieved from 1995 through to 2012.
- Total automotive industry exports (CBUs and automotive components), in rand-value terms, increased more than twenty fold from the R4.2 billion in 1995 to R86.9 billion in 2012.

Positive outcomes to the South African leather industry because of the MIDP:

- Increased the competitiveness of the domestic manufacturers.

- Had caused an increase in growth in automotive leather, as stitched leather seats was one of the top performing components being exported.
- The MIDP acted as a shield, as the incentives obtained was necessary to combat the logistical costs between South Africa and the main markets in Europe, and had assisted in capturing a major share of the main markets.
- Has been recognised for manufacturing world-class automotive stitched leather seat parts for global markets and major OEMs worldwide.
- Because of the MIDP incentives, the domestic leather industry looked attractive to OEMs worldwide and, therefore, was able to obtain new contracts, or maintain existing ones much easier.
- According to Ballard (2001:23), the MIDP has been widely acknowledged for saving the tanning industry, which was facing demise.
- From an industry perspective, without the MIDP the survival of the South African leather industry would have been extremely more difficult and most probably would have collapsed (ATCG, 2014, JALI, 2014).

As indicated above, the MIDP has, on balance, been regarded as being more positive than negative, and that there has been missed opportunities to make it a greater success.

2.8.1 Summary of the MIDP

A number of significant achievements and structural changes have occurred in the South African automotive industry since the implementation of the MIDP. The MIDP can be classified as an innovative approach to the many challenges that the South African automotive industry was experiencing. Domestic vehicle and component manufacturers were exposed to the pressures of international competition and, therefore, needed to improve on processes and efficiencies, thereby facilitating greater affordability in the domestic market (other than during periods of severe exchange rate weakness). Moreover, the MIDP was aiming to provide additional support that would drive the industry's export momentum, thereby effectively providing a greater level of balance between the industry's foreign exchange

payments and earnings, which happened to a certain extent, as the trade deficit at the end of 2013 was R42.3 billion (AIEC, 2014:80). It would have been substantially more if the MIDP was not implemented, as South Africa would still have been importing vehicles and components to meet the domestic demand.

The MIDP guided the industry's outward orientation through its various policy mechanisms, which led to the integration into the global automotive environment. The automotive sector, particularly due to the MIDP, has grown enormously to become the leading manufacturing sector in the economy. The MIDP was not meant to be a miracle solution, but an interventionist programme to guide a small, poor performing industry's integration into the global automotive environment. The performance of the South African automotive industry and particularly the domestic automotive leather industry, under the MIDP, has been regarded as positive and the MIDP, had to a large extent, achieved its stated objectives (AIEC, 2014:13).

The APDP will be discussed next.

2.9 The Automotive Production and Development Programme (APDP)

2.9.1 Background to the APDP

The development of the automotive industry could enhance the country's economic growth, which is recognised by government. However, some industries, such as the automotive industry, require government support to assist in providing and enhancing its economic contribution. As such, the South African government originally provided support to its automotive industry with six local content programmes, and since 1995 via the MIDP. The MIDP had terminated at the end of 2012 and government's current rendition of automotive policy is the APDP. The South African government wanted to develop the automotive industry further in accordance with the National Industrial Policy Framework (NIPF), the Industrial Policy Action Plan (IPAP) and within WTO regulations to achieve its objectives. The

implementation of the APDP, to replace the MIDP, was targeted for the following reasons (NAAMSA, 2010:5):

- Maintaining support to assist the industry in becoming more sustainable over time.
- Being WTO compliant.
- Ameliorating existing industry distortions.
- Minimising the adjustment costs of moving from one support programme to another.
- Moving towards establishing the basis for long-term industry policy arrangements.

The APDP was, therefore, designed to develop and assist light registered motor vehicle manufacturers to increase manufacturing volumes along with component manufacturers, which will hopefully lead to an increase in value addition, resulting in an increase in employment opportunities within the automotive value chains in South Africa (DTI, 2013b:5).

The vision of the APDP aims to double vehicle manufacturing in South Africa by the year 2020 to 1.2 million vehicles per annum, and includes the development of the component sector in the country as well (DTI, 2013a:4; AIEC, 2014:13). This will result in the domestic automotive industry's global market share rising up to an anticipated 1% or above (DTI, 2013a:4; AIEC, 2014:13). By expanding and capturing additional market share, a rise in interest and investments can be expected, as well as an increase in export business. The result of this will also entail an associated rise in localisation and a dramatic change in the domestic automotive industry in terms of the scale of vehicles being manufactured, the processes that will be implemented and the technologies that will be utilised.

Unlike the MIDP, which incentivised exports, the APDP will focus and encourage domestic value addition by increasing the volume of vehicles being manufactured in South Africa, which will lead to economies of scale in the manufacturing of vehicles.

In addition, the APDP is aimed at providing support for the development of world-class automotive component manufacturing. The APDP focus is to enhance and improve the automotive industry's economic performance by means of higher domestic automotive component manufacturing and sourcing, leading to higher employment levels resulting in an increased contribution to the national GDP (AIEC, 2014:14).

It must be noted that when the APDP was proposed in 2007, the government did not anticipate that there would be a global recession and that the primary market, which is the EU, would be seriously affected. This did not play out according to the plans of the APDP, as the automotive industry in the EU went in to a decline and this severely impacted the domestic industries, such as the leather industry. As the South African automotive industry's main trading partner, developments in the EU have a direct and measurable impact on the domestic industry's overall performance. New markets are now sought in an attempt to counteract the lack of demand coming from this primary market. The key elements of the APDP, from 2013 to 2020, are revealed in the following table:

Table 2.5: Key elements of the APDP (2013 – 2020).

Year	CBU Rate	CKD Rate	Vehicle Assembly Allowance (Plant Volume > 50 000 Units)	Production Incentive	Additional Production Incentive For Vulnerable Sectors	Automotive Investment Allowance % Of Project Value Over 3 Years	Discretionary Additional Investment Allowance
2013	25%	20%	20%	55%	80%	20%	5-10%
2014	25%	20%	19%	54%	80%	20%	5-10%
2015	25%	20%	18%	53%	75%	20%	5-10%
2016	25%	20%	18%	52%	70%	20%	5-10%
2017	25%	20%	18%	51%	65%	20%	5-10%
2018	25%	20%	18%	50%	60%	20%	5-10%
2019	25%	20%	18%	50%	55%	20%	5-10%
2020	25%	20%	18%	50%	50%	20%	5-10%

Source: (NAAMSA, 2010:6)

Table 2.5 revealed that government is continuing to support the automotive industry, which is also aligned to WTO regulations. Support is, however, being reduced on the VAA and the PI pillars of the APDP and will be discussed in greater detail next.

2.9.2 Pillars of the APDP

The APDP consists of the following four pillars that will drive the programme (AIEC, 2013:12; AIEC, 2015:16-18; Bronkhorst, Steyn & Stiglingh 2013:1285; DTI, 2013e:6):

2.9.2.1 Automotive Investment Scheme (AIS)

Effective from July 2009, the AIS is an incentive designed to support light motor vehicle and automotive component manufacturers (ACMs) through investment in new and/or replacement models and components, with a potential to raise plant manufacturing volumes, sustain employment and add support to the automotive value chain (DTI, 2013h:60).

This form of government assistance replaces the PAA. Over a three year period, the amount of assistance that will be available for qualifying investments in productive assets will be a cash grant of 20% (taxable) that will be paid over to light motor vehicle manufacturers. Furthermore, the amount of assistance that will be available for qualifying investments in productive assets to automotive component manufacturers and tooling companies will be a cash grant of 25% (taxable), but they must be approved by the DTI (AIEC, 2015:17), see also table 2.5 in this regard.

In addition, an extra 5% to 10% can be obtained by companies if certain performance objectives are achieved. This support may be available for strategic projects that demonstrate an increase in manufacturing volumes; demonstrate a substantial increase in turnover; develop and provide support for the domestic tooling industry; or invest in the upgrading of research and development in South Africa. Vehicle manufacturers and automotive component manufacturers will be encouraged to increase investments in the upgrading of equipment and this support will also be available to assist therein (AIEC, 2015:17).

There is a competitiveness improvement cost grant of 20% of qualifying costs, which will be available for automotive component manufacturers. The main aim of this benefit is to increase the competitiveness of component manufacturers through the improvement of products, processes, the standards of quality and related skills development through the use of business development services (AIEC, 2015:17).

Projects by component manufacturers below R1 million, and by light motor vehicle manufacturers below R30 million, will not qualify for AIS benefits. Projects already

qualifying for other capital incentives offered by the DTI will also not qualify for AIS benefits. An OEM will only be eligible for benefits if it introduces new or replacement models and can demonstrate that it will manufacture 50 000 units per annum over a period of three years. The number of units applied for by a manufacturing plant and component manufacturer will be eligible only if it can prove that it has been included in a OEMs' supply chain by way of contract, or letter of intent, to be a supplier of components (Bronkhorst, 2010:112).

According to the Business Day (2014), the initiatives to boost the manufacturing sector have paid off with the AIS that launched in 2009. It has approved in excess of R22 billion worth of incentives for approximately 192 investment projects that resulted in more capital being invested in South Africa and an increase in employment. Under the MIDP, the PAA was only accessible to OEMs and dedicated automotive component suppliers, while under the APDP, all component manufacturers can apply for the AIS.

2.9.2.2 Production Incentive (PI)

This pillar of the APDP represents a significant transformation of the MIDP into the APDP as the PI replaces the IEC scheme, which in essence means a transition from an export based incentive to a production based incentive. The PI will be available to final manufacturers and the calculation will be based on the value added at the point of sale on certified South African manufactured motor vehicles and automotive components.

It is a rebate mechanism in the form of a tradable duty credit similar to the IRCCs which will start at 55% of the value added. Thereafter, there will be a progressive yearly reduction of 1% up to 50% of the value-added, which replaced the export based scheme in a form that will also be available in duty-free import credits (see also table 2.5 in this regard). The component duty rate multiplied by the incentive will sum up to the equivalent value, so 11% of value added in 2013, will reduce to 10% by 2018. Vulnerable products will receive an additional amount. Leather is regarded

as a vulnerable product and will receive a PI of 80% in 2013 and 2014, thereafter it will decrease by 5% every year up to 50% in 2020 (AIEC, 2014:14).

In order to establish how much value-added has been achieved, it can be explained simply as the manufacturers' selling price minus the value of non-qualifying material and components. Within the automotive supply chain, this incentive will be available to the final manufacturer, either the OEM, or if it is a replacement part or a component export, then the component manufacturer will receive the incentive. The plan of implementing a value-added support within the automotive value chain is intended to encourage increased levels of local value addition, which as one of many positive spin-offs, will lead to the increase of employment opportunities and in many instances poverty eradication.

All qualified raw materials must originate from the Southern African Customs Union (SACU), for which a Standard Value (SV) of 25% is regarded as local value. It must be compatible for the beneficiation in to automotive purposes and specifications, and the following have been certified as qualifying raw materials (AIEC, 2015:16, 17):

- Aluminium
- Brass
- Leather
- Platinum Group Metals
- Stainless steel
- Steel

With regards to vulnerable products, these high material content products will receive additional support in terms of the APDP to avoid any sudden and significant loss of export business compared to the export incentives inherent to the MIDP prior to 2013. In this regard, 40% of the standard material(s) mentioned above, as well as the following products mentioned below, will be regarded as local value added:

- Alloy wheels

- Aluminium products (engine and transmission components, heat exchangers and tubes, suspension components and heat shields)
- Cast iron components (engine/axle/brake/transmission and related types of components)
- Catalytic convertors
- Flexible couplings
- Leather interiors
- Machined brass components
- Steel jacks

An annual reduction of 5% will begin from 1 January 2015 to reach 25% by January 2017, and this percentage will continue from 2017 onwards. The International Trade Administration Commission (ITAC) of South Africa is responsible for applying the PI factor, but the percentages will be calculated by the applicant. In order to claim the PI, all manufactured automotive components must belong to either a domestic or international OEM supply chain, and a manufacturer must also manufacture replacement parts according to the APDP regulations, which will ensure components are being sourced domestically.

The transition from the MIDP to the APDP caused certain high volume and high raw material containing export products to become vulnerable owing to the difference in calculating the benefits under the APDP. Stitched leather products is one of the products affected and this study focuses on the impact of South African automotive policy changes on the domestic leather industry.

2.9.2.3 Import Duty

The tariff phase-down under the MIDP has been removed under this pillar. Vehicles and automotive components import duties will be frozen at 2012 levels (25% on light vehicles and 20% on original equipment components) up to 2020. Any imported vehicles from the EU will be subject to only paying 18% duty and this is as a result of a preferential arrangement under the SACU-EU free trade agreement. The purpose

of these tariffs is to ensure that domestic vehicle manufacturing continues, whilst at the same time, providing the right amount of protection. The APDP differs from the MIDP with regards to import tariffs therein that there will be no tariff phase-downs, as tariffs will be stable up until 2020 when the programme terminates.

2.9.2.4 Vehicle Assembly Allowance (VAA)

Only light motor vehicle manufacturers will qualify for VAA benefits. They must be registered with ITAC and the South African Revenue Service (SARS) and manufacture specified light motor vehicles to qualify for VAA benefits. This pillar of the APDP will allow manufacturers manufacturing in excess of 50 000 vehicles per annum to import a percentage of their components duty free. This 50 000 unit threshold is allowed across different model platforms and is determined per manufacturing plant.

This pillar replaces the DFA under the MIDP. A key difference between the DFA and the VAA is found in its requirements. Under the DFA, the allowance was awarded to manufacturers manufacturing vehicles specifically for the domestic market, whereas the VAA is now awarded to manufacturers domestically manufacturing vehicles for any market (domestic and exports), therefore, there is no preferential treatment given to any domestic manufacturer.

This support will be issued to vehicle manufacturers in the form of duty-free import credits, and will be based on 20% of the ex-factory vehicle price in 2013, being reduced to 19% in 2014 and in 2015 onwards, to 18% of the value of light motor vehicles manufactured domestically. The allowance that will be multiplied by the duty rate will be the equivalent value to the OEMs', so in essence, 4% of the ex-factory vehicle price in 2013 reducing to 3.6% in 2015. By providing a reduced duty rate, this support is aimed at attracting and encouraging domestic vehicle manufacturers to effectively increase their manufacturing volumes significantly, which will result in the vision of 1.2 million vehicles per annum by 2020 to be realised.

2.9.3 Summary of the key differences between the MIDP and the APDP

The summary of the key differences between the MIDP and the APDP is revealed in the following table.

Table 2.6: Summary of the key differences between the MIDP and the APDP.

Summary of the key differences between the MIDP and the APDP		
No	**MIDP**	**APDP**
1	**PAA** - Introduced to support automotive investment in state of the art productive assets as a means of attaining global competitiveness. The main objective of the PAA was to improve industry performance by rationalising the number of vehicle platforms. Only restricted to OEMs and dedicated automotive suppliers.	**AIS** - Is an incentive designed to support light motor vehicle and automotive component manufacturers (ACMs) through investment in new and/or replacement models and components with a potential to increase plant manufacturing volumes, sustain employment and strengthen the automotive value chain. Not restricted, OEMs and all component manufacturers can apply for the AIS.
2	**IEC** - Incentives were based on exports.	**PI** - Incentives are based on volume production.
3	**Import duty** - Tariff phase-down applied.	**Import duty** - Tariff phase-down does not apply as tariffs remain frozen for the duration of the programme.
4	**DFA** - Allowance was awarded to manufacturers manufacturing vehicles specifically for the domestic market.	**VAA** - Allowances are now awarded to manufacturers domestically manufacturing vehicles for the domestic and export markets, therefore, there is no preferential treatment given to any domestic manufacturer.

Source: (AIEC, 2013:12; DTI, 2013a:6)

Table 2.6 revealed the key differences between the MIDP and the APDP. The new programme is now compliant with WTO regulations. An analysis of the objectives of the APDP will be discussed next.

2.9.4 Analysis of the objectives of the APDP

The objectives of the APDP are not too far off from the objectives of the MIDP and it builds on from the objectives of the MIDP. Table 2.7 reflects the objectives of the MIDP and relates it to that of the APDP.

Table 2.7: Objectives of the MIDP and APDP.

Objectives of the MIDP and APDP		
No	**MIDP**	**APDP**
1	To encourage a phased integration into the global automotive industry.	To encourage the rationalisation of platforms to achieve economies of scale in assembly.
2	Increasing the volume and scale of production by the expansion of exports and gradual rationalisation of models manufactured domestically.	To encourage further capital investment in South Africa.
3	Encouraging the modernisation and upgrading of the automotive industry in order to promote higher productivity and facilitate the global integration process.	To create an environment that will enable OEMs to significantly increase manufacturing volumes, and component manufacturers to significantly grow value addition, leading to additional opportunities.
4	To provide high quality and affordable vehicles and components to the domestic and international markets.	To improve the international competitiveness of the South African automotive industry.
5	To provide sustainable employment through increased production.	To stabilise and potentially increase employment levels.
6	To make a greater contribution to the economic growth of the country by increasing production and achieving an improved sectoral trade balance.	To continue to encourage growth, particularly through exports, thereby improving the industry's current trade imbalance.

Sources: (AIEC, 2013:17; Bronkhorst, 2010:107; DTI, 2013a:6)

As revealed in table 2.7, it seems that the objectives of the APDP are based to some extent on the objectives of the MIDP, however, the APDP, in elevating the industry to the next level, has two further critical and key objectives which will be discussed further.

2.9.5 Two key objectives of the APDP

The APDP has the following two key objectives:

2.9.5.1 To increase manufacturing volumes to 1.2 million units per annum by the year 2020

The first key objective of the APDP, as part of its vision, is to increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020 (DTI, 2013a:4). There are two important aspects to consider regarding this objective, firstly, how does this benefit the South African economy as a whole, and how does this impact on automotive leather manufacturing in South Africa?

The first aspect deals with the manufacturing of 1.2 million vehicles per annum by the year 2020, and the impact on and benefit to the South African economy. The vision of the APDP, to manufacture 1.2 million vehicles per annum by the year 2020, will result in the domestic automotive industry's global market share rising to an anticipated 1% or above (DTI, 2013a:4; AIEC, 2013:11). Because the market share will increase, South Africa will look attractive to investments and generate additional interest, as well as export business (AIEC, 2014:13). Both domestic and foreign investments would be natural outcomes as the industry growth and higher volumes make investments and projects more economically viable in the country.

South Africa would be expected to generate a substantial amount of Foreign Direct Investment (FDI). There is certainty up to 2020 under the APDP, which will lead to long-term strategic planning in respect of FDI by the OEMs and the automotive component suppliers. FDI is an internationalisation strategy by which firms use to

establish a physical presence abroad through direct ownership of productive assets, such as: capital, technology, labour, land, plant and equipment (Cavusgil et al., 2014:418).

FDI is one of the most sophisticated and complex foreign market entry strategies. Firms use FDI to establish manufacturing plants, marketing subsidiaries, or other facilities in specific countries. Because a large investment in resources is required to establish a physical presence abroad, FDI is riskier than other entry strategies (Hill, 2009:239; Cavusgil et al., 2014:419).

While the ultimate goal of FDI is to increase a firm's competitiveness in the global arena, there are other reasons why Multinational Corporations (MNCs) decide to pursue FDI. According to Hill (2009:239-259), as well as Cavusgil et al. (2014:420), these include:

- Market seeking motives

MNCs may seek new market opportunities as a result of either unfavourable development in their home market or attractive opportunities abroad. The three primary market seeking motivations are (Cavusgil et al., 2014:420):

- Gain access to new markets or opportunities. Establishing a market motivates many firms to produce offerings at, or near, customer locations.
- Follow key customers. MNCs often follow their key customers to ensure other vendors do not serve them.
- Compete with key rivals in their own markets. MNCs may want to confront current or potential competitors directly in the competitors' home market. The strategic purpose behind this is to make competitors utilise their resources in an effort to defend their market.

The international automobile manufacturers, through their domestic automotive manufacturers, aim to use their position and infrastructure in South Africa as a base

to gain increased access and penetration in to other parts of Africa, especially in the Southern African environment.

- Resource or asset seeking motive

Acquiring production facilities in a foreign market is a top priority for MNCs. Specifically, FDI ventures may be motivated because an MNC wants to acquire the following assets (Hill, 2009:249; Cavusgil et al., 2014:420, 421):

- Raw materials needed in extractive and agricultural industries.
- Knowledge or other assets. By establishing a domestic presence through FDI, the firm is better positioned to deepen its understanding of target markets.
- Technological and managerial know-how.

South Africa is known for having an abundance of raw materials and this has attracted other automotive companies to the country, such as, those involved in the catalytic convertor supply chain to capitalise on the platinum group metals in the country.

- Efficiency seeking motives

Through international expansion, MNCs increase their economies of scale. International expansion allows the firm to increase sales and employ company assets across a larger number of products and markets. In addition to attaining economies of scale and scope, firms engage in international business to achieve four major efficiency seeking goals (Hill, 2009:251, 256; Cavusgil et al., 2014:421, 422):

- Reduce sourcing and production costs by accessing inexpensive labour and other cheap inputs to the production process.
- Locate production near customers.

- To take advantage of government incentives. In addition to restricting imports, governments frequently offer subsidies and tax concessions to foreign firms to encourage them to invest domestically. FDI is encouraged by governments because it provides domestic jobs and capital, increases tax revenue and transfers skills and technologies. The MIDP was an example of this, now the APDP is the latest example of a government policy intended to attract automotive manufacturers to invest in South Africa because of the support and incentives it can earn under the APDP.
- Avoid trade barriers. MNCs often enter markets via FDI to circumvent tariffs and other trade barriers, as these normally apply only to exporting. However, this motive is declining in importance because trade barriers have fallen substantially in many countries.

FDI is motivated by a firm's pursuit of wealth-creation in the long-term. The benefits of FDI do not only favour companies, but also a nation, as it creates employment in a country that otherwise would not have had it (Hill, 2009:250). Under the APDP, there is long-term policy certainty up to 2020 in South Africa, and this will support and encourage FDI initiatives to boost the South African economy.

The next important aspect that must be taken into account is: how does the APDP's vision of manufacturing 1.2 million vehicles per annum by the year 2020 impact automotive leather manufacturing in South Africa? It is anticipated that by manufacturing of 1.2 million vehicles per annum by the year 2020, this will have a knock-on effect on all the suppliers involved in the domestic supply chain. This shifts the focus to the effect thereof on the domestic leather industry. This will be discussed next.

According to JALI (2014), it must be noted that the vision of the APDP, regarding the manufacturing of 1.2 million vehicles annually by the year 2020, is perceived as optimistic. It needs to be seen whether this threshold can realistically be achieved; it sounds promising, but it is a daunting task to actually realise. Nevertheless, if South Africa does manage to achieve this vision under the APDP, it must further be noted

that these 1.2 million vehicles being manufactured comprises of different models and brands, and the impact and benefit on automotive leather manufacturing in South Africa is perceived to be marginal.

Automotive leather is primarily fitted in to luxury vehicles. Luxury vehicle manufacturing only constitutes a small percentage of the overall, or total, volume output. Sales differ from manufacturing because a large percentage of vehicles is imported, such as: the Lexus, Jaguar, BMW and Mercedes-Benz models, and their leather is being manufactured in Europe and elsewhere in the world.

Automotive leather interior is expensive and almost exclusively reserved for luxury and premium brand vehicles, whereof 90% are exported to the vehicle parent companies, of which Mercedes-Benz and BMW constitutes approximately 80%, but this trend is declining (JALI, 2014). According to JALI (2014), if a rough estimate has to be made to establish the benefit that the domestic automotive leather industry might inherit from the anticipated 1.2 million vehicles being manufactured, taking into consideration that the automotive leather will be manufactured for the luxury and premium brand vehicles, it might constitute an estimated volume of 120 000 units out of the total of 1.2 million units, which is equivalent to an estimated 10%.

Although this volume will help and assist the industry, more business from other OEMs would be required to sustain and grow the automotive leather industry in the long-term. A normal automotive component gets a standard material benefit of 25%, which is deemed local content and all value addition is adjusted by 55%, which will be phased down to 50%. A vulnerable product, such as stitched leather seats, gets a standard material benefit of 40%, which is deemed local content and all value addition is adjusted by 80%, which will be phased down to 50%. When an OEM exports a vehicle (with leather interiors), the normal APDP benefit (25% and 55%) applies as a vehicle is not a vulnerable product. However, when an OEM exports a leather seat kit then they also get the vulnerable benefits (40% and 80%).

The PRCC in respect of components is calculated and issued in Free On Board (FOB) terms, and if this is used to import components, the duty saving is the applicable 20% import duty. When the PRCC issued in respect of components is used to import vehicles, a downward adjustment of 20% to the value needs to be made. The PRCC in respect of vehicles is calculated and issued in FOB terms and if the CBU duty is 25%, the duty saving is 25%. However, for the SA-EU trade agreement, this duty is much lower at only 18% and German OEMs calculate their benefit on the 18%, which therefore brings the APDP PI benefit as a percentage of sales price down to just above 4%, whereas the MIDP gave this industry a benefit of approximately 9% (JALI, 2013). In view of the reduced benefits under the APDP for certain commodities, the vulnerable products' benefits have been introduced, but the phasing down of the benefits under the programme remains a problem for new business and investments.

Another aspect that must be taken into account and is of paramount importance is the fact that 2020 is five years away. Although the vision of the APDP has its merits and sounds promising, South African automotive leather manufacturers are regarded as vulnerable. They, firstly need to survive financially and, secondly, the industry desperately needs to be sustainable in order to be part of the vision and what it aims to achieve. If automotive leather manufacturing in South Africa were to disappear, it is very likely that all leather manufacturing will disappear (ATCG, 2014; JALI, 2014). This will result in raw hides and skins being exported without any value being added and that defies the objectives of the APDP and governments industrial policies.

In order for the vision of the APDP, to be more effective with regards to automotive leather manufacturing, it needs to provide even higher incentives to combat the higher costs associated with airfreight, and this will then balance the scorecard and assist in winning over German contracts from BMW and Mercedes-Benz. The result thereof will be that automotive leather will still be manufactured in South Africa, not only in the short-term, but successfully beyond 2020 adding value to the South African economy for a longer period, and this is in line with the objectives of the APDP and other industrial policies. It is surely not the government's intention and

logic to implement a policy that benefits only a part, or segment, of the economy, therefore, it is of the utmost importance and a necessity that government, along with relevant stakeholders from the leather industry, through research and development, collaborate and seek fruitful solutions benefiting the South African economy.

2.9.5.2 To substantially broaden and deepen the components supply chain

The second key objective of the APDP is to substantially broaden and deepen the components supply chain in South Africa (DTI, 2013a:4). This will mean that increases in plant volume thresholds will be required on a regular basis and OEMs, along with component manufacturers, will need to identify how an increase in economies of scale can be achieved in component sourcing and/or value chain development. The complete leather supply chain will be discussed in chapter 3.

2.10 Summary

The contribution of the South African automotive industry is well acknowledged by the South African government. The change of policies over the last few decades clearly indicates government's commitment to the automotive industry. The MIDP, to a great extent, had achieved its stated objectives and other industries, because of their strong association with the automotive sector, have also benefited.

The APDP is the South African government's current rendition of automotive policy regime. The purpose for the APDP is to provide on-going support to South Africa's automotive industry in elevating the industry to the next level. Support to the automotive industry, under the APDP, will be extended until 2020 and this will create a long-term policy certainty environment conducive to both foreign and domestic investments. FDI has contributed significantly to the development of South Africa and the government's support measures in productive sectors have shifted towards FDI, which maximises local value addition and job creation, such as the automotive sector.

The objectives of the MIDP were, and those of the APDP are imperative for the country in general and the automotive industry in particular, as the automotive industry is a key enabler of government's industrial policies. The South African government is seeking, by means of their industrial policies, to shift the focus to increased value addition within the country, so that the whole country can benefit thereby by creating employment, eradicating inequality and poverty, and improving the living-standard of South Africans. This will require the cooperation of all relevant role-players within South Africa to ensure that the automotive industry and its performance are regarded as a benchmark for the other priority industries of the economy. The South African leather industry will be discussed in great detail in the following chapter.

Chapter 3

The South African Leather Industry

3.1 Introduction

Chapter 2 discussed the MIDP's and APDP's policy regimes in great detail. Chapter 3 provides the background to the South African leather industry; key characteristics of the South African leather industry; introduces the industry role-players; the leather value chain in South Africa; the MIDP and the effects of globalisation on automotive leather; key challenges facing the South African leather industry; why it is important that it succeeds; and why leather interiors are treated as vulnerable under the new APDP dispensation. This chapter contributes to an understanding of the South African leather industry as a whole by focusing on the workings and strategies employed by the leather manufacturers in South Africa.

3.2 Background to the South African leather industry

The South African leather industry has transformed substantially over the past two decades. Two decades ago, the primary focus of the leather manufacturers was orientated towards the manufacture of general leather goods and footwear. Trade liberalisation changed the direction of leather manufacturers, as the automotive industry started to witness rapid expansion and the leather manufacturers, therefore, shifted focus to become more involved in the manufacturing of automotive upholstery (Ballard, 2001:1).

The leather industry in South Africa has a multipronged orientation between a domestic and export-focus. General leather goods and footwear are mainly domestically orientated. The automotive upholstery industry is primarily export orientated because the goods manufactured by the leather manufacturers are mainly exported, either as a product to OEMs worldwide, or in vehicles for the export market. The major difference in the domestic and export orientation is that the

automotive industry has grown substantially within the export market, whilst the footwear and general leather goods manufacturers have not grown at all. In fact, the domestic manufacturers have lost a significant share of their South African market in the last number of years. This is owing to competitors from China and India penetrating the South African market with cheap imports. Some of the significant transformations, indicated below, that have had an impact on the leather industry since the 1990's, will be discussed next (Ballard, 2001:3):

- Drought in the early 1990's.
- The deregulation of the Meat Board.
- The reduction of import tariffs on leather and finished goods.

The drought that occurred in the early 1990's had led to a scarcity of good quality hides being made available to the leather manufacturers. Hide prices started to increase towards world parity, therefore, the industries that utilised leather stopped enjoying paying lower prices for hides (DTI, 2002:16).

The deregulation of the Meat Board has resulted in a decrease in the quantity and quality of the available hides and skins. Before deregulation, all slaughtering, by law, had to take place at the abattoirs. However, after deregulation a lot of livestock owners started slaughtering their cattle themselves, and the skins and hides were not made available to the leather industry. This has also led to a decrease in the quality of hides and skins being made available because slaughtering at the abattoir meant that skilled people were removing the hides and skins from the carcasses, but slaughtering away from the abattoir would result in damaged hides and skins being made available.

The relaxation of import duties reduced the protection from import tariffs. This was a major step in South Africa's liberalisation to international markets, however, it also meant that the domestic manufacturers are forced to compete and contend with international competitors as they obtained access to compete for South African markets (Ballard, 2001:5). This encouraged South African manufacturers to compete

for international markets, but not all industries responded positively to this competitive challenge.

The automotive industry responded positively, whilst some industries, such as the textiles, clothing and footwear industry, have experienced this as significantly more challenging (Ballard, 2001:5). This had led to factories closing down and increasing the unemployment rate within the general leather goods and footwear manufacturing industries. At the same time, the tanning industry was able to capitalise because it was able to supply luxury leather seats to the international automotive industry, and this was growing substantially under the MIDP.

The export orientated focus of the leather industry has improved substantially for South African suppliers and manufacturers. This is not limited to automotive upholstery, but also includes raw and semi-processed hides, as well as ostrich and sheep types of leather.

The key characteristics of the South African leather industry will be discussed next.

3.3 Key characteristics of the South African leather industry

The South African leather industry is regarded by the South African government as a significant industry. The skin, hide and leather industry is an important element of South Africa's manufacturing capability. The sector is highlighted as a crucial connecting link between the upstream and downstream industries. For the upstream agricultural industries, the sale of skins and hides is an important factor in agricultural sustainability and ultimately food security. In the downstream leather manufacturing industries, such as: footwear, automotive leather, furniture upholstery leather and general leather goods, it forms an important part of South Africa's manufacturing for the domestic market, exports and employment creation.

Most abattoirs have partnerships with skins and hides traders who export raw hides and skins, as well as low value added semi-finished leather products. Hides, skins

and leather are by-products of farming stock and wild animals bred primarily for meat consumption. Slaughterhouses and farms recover the largest number of hides and skins. Hides and skins recovered from farming stock determine the quantity of hides and skins available to the leather manufacturers. According to the Department of Agriculture, Forestry and Fisheries (DAFF, 2014:3), there are three factors that affect the quantity of raw material availability:

- The size of the animal population.
- The take-off ratio.
- The weight/size of the hide/skin recovered.

Automotive tanners purchase the superior quality wet-blue hides and the inferior quality ones are purchased by tanneries that are engaged in the manufacturing of other leather products. South Africa is endowed with an annual raw material supply of hides and skins as revealed in the following table:

Table 3.1: Animal type, population and annual off take (2012).

Animal	Population / Herd size	Annual take – off of Skins and Hides
Cattle	14 million	25% - 30% (2.8 - 3 million hides)
Sheep	25 million	30% - 35% (4.5 million skins)
Goat	6,4 million	30% - 35% (600 000 skins)
Pig	1,7 million	No statistics available
Ostrich	1,6 million	300 000 – 400 000 pieces

Source: (DAFF, 2012)

Skins and hides are mainly derived from livestock and, to a lesser extent, from wild animals and reptiles. The actual quantity of hides and skins cannot be determined from animal slaughter statistics alone. Memedovic & Mattila (2008:487) reports that there are a few reasons therefor; firstly, there are no statistics available for hides and

skins that are recovered from fallen animals; secondly, a large amount of wastage can occur through non-collection of hides and skins; and finally, losses can occur from the collection of hides and skins, and this is mainly because of inadequate information, poor preservation and handling, missing grading techniques and defective processing.

Hides and skins are inputs to the leather industry. South Africa slaughters over two million cattle, and over four million sheep, every year and over 60% of South African hides can be utilised for the manufacturing of automotive leather (DAFF, 2014:3). These skins and hides are given the following status types when they leave the abattoir:

Gold status – this is the skin or hide that had been sourced from an approved registered abattoir where ante and post-mortem examinations are routinely performed. These skins and hides must not originate from the World Organisation for Animal Health (OIE) recognised foot and mouth disease controlled areas of: Limpopo, Mpumalanga, KwaZulu-Natal and the Kruger National Park.

Silver status – this is the skin or hide that had been sourced from an approved registered abattoir in South Africa where ante and post-mortem examinations are routinely performed.

Bronze status – this is the skin or hide that had been sourced from an unapproved or unregistered abattoir without veterinary health certificate and original status, and has been compromised and/or exposed to contagions.

In South Africa, the non-hump type of cattle is more dominant and the hides and skins derived from these animals are of a superior quality. The following are the main categories of hides and skins according to species (DAFF, 2012:3):

Bovine cattle hide

Bovine hides dominate the supply of leather in South Africa. They are mainly by-products of meat production supplied by feedlots and it is the only type of leather being used in automotive upholstery.

Sheep skin

It is produced with or without wool mainly for the export market.

Pig skin

Pig skin tends to be part of the meat, thus South Africa does not have a significant supply.

Goat and kid skin leather

The supply of goat and kid skins is low because the majority of goats are slaughtered outside the abattoirs.

Ostrich skins

Unlike bovine, ostrich is bred primarily for its skin and ostrich meat becomes a by-product. Ostrich leather is unique with its feather quill pattern. This gives it extra strength and durability; it is seven times stronger than bovine hide. Ostrich leather is used to produce handbags, wallets, shoes and clothing.

Skins of wild animals

Many wild animals, including elephant and buffalo, are main sources of leather.

Skin of reptiles

Crocodiles and snakes are bred for their skins.

3.3.1 Industry role-players

Farmers are the main suppliers of hides and skins, and it is sold to either traders, tanneries, or Bader (BOP) (Pty) Ltd; the largest tannery operating in South Africa and a fully integrated tanning and cutting plant (ATCG, 2013).

The tanning industry is represented by the Skin, Hide and Leather Council of South Africa (SHALC) and a voluntary group, the Automotive Tanning and Cutting Group (ATCG) that has been established in 2010. There are more than 30 tanneries in South Africa manufacturing other leather products. When the researcher started this study in 2013, there were four major tanneries manufacturing automotive upholstery, however, in 2014 two of these major tanneries have shut down operations. The two that are still operational and represented by the ATCG are:

- Bader (BOP) (Pty) Ltd (Subsidiary of Bader GmbH & Co), a leather goods manufacturer and merchant of automotive upholstery. The company was founded in 1979 and their first production round was in 1980. It is the first company for Bader GmbH outside Germany and its main customers are BMW and Mercedes-Benz. They are a fully integrated tanning and cutting plant, meaning they are the only plant able to buy raw hides and skins directly from the farmers. This is partly because they have a larger control of the value chain as they are the largest tannery in operation. They are located in Ga-Rankuwa in Gauteng and is fully foreign owned. This tannery is currently still operational.

- Seton SA (Nigel) (Pty) Ltd, the USA producer of automotive leather's most vertically integrated automotive leather manufacturer in South Africa. They are vertically integrated meaning that they do not buy directly from the farmers, but from traders in the form of wet blue hides. It has a stand-alone research and development center with state of the art laboratory with all the required

equipment for automotive leather testing. They are located in Gauteng and is fully foreign owned.

The two that have shut down operations in 2014 are:

- Mario Levi manufacturing (SA) (Pty) Ltd, an Italian factory that manufactured automotive leather. They focused on the domestic as well as export customers by supplying furniture upholstery and footwear upper leathers. They were located in Uitenhage but this tannery had shut down operations.

- Zenda leather (SA) (Pty) Ltd, a part of the Marfrig group that focused on finishing and cutting of automotive leather. They were located in Pretoria and were fully foreign owned but this tannery had shut down operations.

When the researcher started this study in 2013, there were four major sewing plants manufacturing automotive upholstery in South Africa, however, in 2015 two of these major sewing plants have relocated from South Africa to Lesotho. The two that are still present in South Africa and represented by JALI are:

- AUNDE South Africa (Pty) Ltd, a foreign owned MNC that specialises in the development and production of upholstery and technical textiles for the automotive industry. They currently have 80 plants in 25 countries worldwide. In South Africa they are located in Durban.

- LEAR South Africa (Pty) Ltd, a foreign owned MNC that specialises worldwide in complete automotive seating and power management systems. They have plants in 221 global locations and are currently ranked 187 amongst the Fortune 500 (LEAR, 2014). In South Africa, they are located in East London, Port Elizabeth and Rosslyn.

The two that have relocated to Lesotho in 2015 are:

- Automotive Leather Company (ALC) (Pty) Ltd, a privately owned South African company. The company specialises in the manufacturing and exporting of top of the range automotive leather interior trim components, and are focused on the middle and luxury automotive sectors. They were located in Rosslyn but have relocated to Lesotho in 2015.

- Johnsons Control Inc. (Pty) Ltd, a foreign owned MNC and the leading supplier in the world of automotive mechanisms, metal structures and seat foams. They have manufactured and supplied OEMs worldwide with smart automotive seat systems for more than 80 years. In South Africa, they were located in East London, Port Elizabeth, Sandton, Pretoria and Uitenhage but have relocated to Lesotho in 2015.

The OEMs that place their business within the South African leather industry are the major customers. The top five trading countries that South African stitched leather seat parts were exported to in 2014 are (AIEC, 2015:63):

- Germany – (59%)
- Poland – (12%)
- UK – (9%)
- Bulgaria – (7%)
- Spain – (5%)

The employees of these businesses are represented in the National Bargaining Council of the leather industry of South Africa by two trade unions: South African Clothing and Textile Workers Union (SACTWU) and the National Union for Leather and Allied Workers (NULAW), and employers are represented by the South African Tanners Employers Association. At the Department of Trade and Industry (DTI) the domestic leather industry is represented by two desks: the Clothing Textiles Footwear and Leather (CTFL) desk and the automotive desk.

3.3.2 Hide policy and prices

South African hide prices are higher in comparison to other countries (DAFF, 2014:4). Firstly, because of the MIDP being implemented, this had led to an increase in the demand of domestic hides. The MIDP contained a key feature in the form of an import-export complementation scheme that transferred credits to component manufacturers and vehicle assemblers who manufactured goods for the export market. The manufacturers and assemblers could then use these transferable credits to reduce the duty liability on parts or vehicles they wished to import. Exports of stitched leather seat covers responded positively to this incentive because it is one of the main automotive components exported under the MIDP and increased the demand for local hides and skins.

Secondly, South African tanneries have to pay international prices for hides, as a result, there is free trade on South African hides and leather and only a 10% ad valorem import duty on leather. Since hides are freely traded with no export duties, local suppliers inherently know that they can fetch world parity prices either domestically or abroad. Because of this, tanneries are becoming uncompetitive as they are competing against countries that protect their hides for local beneficiation, such as: Uruguay, India, Argentina and Brazil as revealed in table 3.2.

Table 3.2: Comparison of export duties amongst other countries (2012).

Export Duties	Uruguay	India	Argentina	Brazil
Raw or salted hides	5% Duty on export	60% Duty on export	15% Duty on export	9% Duty on export
Hides in wet blue stage	5% Duty on export	60% Duty on export	15% Duty on export	9% Duty on export
Hides in wet blue split stage	5% Duty on export	60% Duty on export	5% Duty on export	9% Duty on export
Hides in crust stage	4% Devolusion of import duties on export	20% Devolusion of import duties on export	0%	3% Devolusion of import duties on export
Hides in finished	4% Devolusion of import duties on export	20% Devolusion of import duties on export	0%	3% Devolusion of import duties on export
Cut kits	10% Devolusion of import duties on export	20% Devolusion of import duties on export	1% Devolusion of import duties on export	3% Devolusion of import duties on export

Sources: (DTI, 2012; ATCG, 2013)

As revealed in table 3.2, countries outside the borders of Africa have some measures to protect their domestic industry. According to the Food and Agriculture Organisation of the United Nations (FAO, 2013:11), within the borders of Africa, Ethiopia, Nigeria, Sudan, Uganda and Zambia are amongst the African nations that have banned the export of hides and skins in order to boost their domestic tanning industries. Tanzania is considering taking similar action.

Thirdly, South African hides are of a higher quality when benchmarked against that of other countries and over 60% are suitable for automotive purposes (DAFF, 2014:3). Since there are no duties on the exports of hides, the demand for South African hides is high. Once the raw materials are channelled through exports, it results in no beneficiation within South Africa, which puts pressure on the supply of good quality raw materials (ATCG, 2013). Table 3.3 reveals the production of bovine

hides in South Africa from 1995 to 2012. Tables 3.4 and 3.5 reveal the production of bovine hides in India and Brazil from 1995 to 2012, and then a discussion follows after all the tables are revealed.

Table 3.3: Production of bovine hides and skins in South Africa (1995 - 2012).

Production of Bovine Hides and Skins in South Africa (In Millions)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Millions	2.7	2.2	2.2	2.2	2.3	2.7	2.2	2.5	2.5
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Millions	2.7	2.8	3.1	3.1	2.9	2.9	2.9	2.9	3

Source: (FAO, 2013:22)

The following table reveal the production of bovine hides in India from 1995 to 2012.

Table 3.4: Production of bovine hides and skins in India (1995 - 2012).

Production of Bovine Hides and Skins in India (In Millions)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Millions	37.9	38.2	38.2	38.2	38.1	38	38	38	38.1
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Millions	38.6	39.4	40.1	40.8	41.6	42.3	43.1	43.1	43.1

Source: (FAO, 2013:20)

The following table reveal the production of bovine hides in Brazil from 1995 to 2012.

Table 3.5: Production of bovine hides and skins in Brazil (1995 - 2012).

Production of Bovine Hides and Skins in Brazil (In Millions)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Millions	24.6	26.5	26.5	26.5	30.5	31.1	33.5	34.5	35.5
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Millions	36.5	39.4	41.2	42.3	40.4	39.5	39.4	39.1	39.8

Source: (FAO, 2013:18)

It is evident in tables 3.3, 3.4 and 3.5, above, that South Africa's production of bovine hides and skins are far inferior to that of other competitive countries, such as India and Brazil. As revealed in tables 3.3, 3.4 and 3.5, India and Brazil produce approximately ten times more than South Africa.

The APDP, which focuses on value addition, seeks to beneficiate raw materials in the complete value chain. All hides processed prior to the year 2010 had to be beneficiated to the end of the value chain, which are the sewing plants. After 2010, hides started to get exported directly before reaching the tanneries or the sewing plants meaning that value addition in the leather value chain is decreasing, having a negative impact on employment levels and sustainable growth, which has a direct impact on the South African economy (ATCG, 2013).

The following table reveals the production and export of bovine hides and skins in its wet salted weight (Stage 2) from South Africa from 1995 to 2012, and compare it to other countries such as India and Brazil. After tables 3.6, 3.7, 3.8, 3.9, 3.10 and 3.11 are revealed, a discussion regarding the tables will follow.

Table 3.6: Production of bovine hides and skins (wet salted weight) from South Africa (1995 - 2012).

Production of Bovine Hides and Skins from South Africa, Wet Salted Weight (In Thousand tonnes)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Thousand tonnes	50.5	41.7	41.7	41.7	43	51.6	42.2	48.2	47.8
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Thousand tonnes	50.8	52.9	58	58.8	55.2	54.6	55.1	55.4	57.7

Source: (FAO, 2013:27)

The following table reveal the exports of bovine hides and skins in its wet salted weight from South Africa from 1995 to 2012.

Table 3.7: Exports of bovine hides and skins (wet salted weight) from South Africa (1995 - 2012).

Exports of Bovine Hides and Skins from South Africa, Wet Salted Weight (In Thousands tonnes)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Thousand tonnes	18.9	19.5	19.5	19.5	18	11.4	14.4	11.7	18.6
Value USD Millions	30.3	29.5	29.5	29.5	19.9	19	20.5	15.4	23.7
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Thousand tonnes	22.2	20.3	12.8	11.4	12.8	23.5	20.4	14.5	14.5
Value USD Millions	27.7	22	14.3	19.4	15.7	16.9	26.5	26	26

Source: (FAO, 2013:62)

The following table reveal the production of bovine hides and skins in its wet salted weight from India from 1995 to 2012.

Table 3.8: Production of bovine hides and skins (wet salted weight) from India (1995 - 2012).

Production of Bovine Hides and Skins from India, Wet Salted Weight (In Thousand tonnes)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Thousand tonnes	379.3	381.7	381.7	381.7	381	380	380	380	381
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Thousands	386	394	401	408	416	423	431	431	431

Source: (FAO, 2013:25)

The following table reveal the exports of bovine hides and skins in its wet salted weight from India from 1995 to 2012.

Table 3.9: Exports of bovine hides and skins (wet salted weight) from India (1995 - 2012).

Exports of Bovine Hides and Skins from India, Wet Salted Weight (In Thousand tonnes)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Thousand tonnes	0	0	0	0	0	0	0.7	0.7	0.8
Value USD Millions	0	0	0	0	0	0.1	1	1.4	1.5
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Thousands	0.7	1.4	0.5	4.3	8.6	1.6	1.9	2.1	2
Value USD Millions	1.9	3.3	4.9	12.5	28.7	10.9	7.4	4	4

Source: (FAO, 2013:59)

The following table reveal the production of bovine hides and skins in its wet salted weight from Brazil from 1995 to 2012.

Table 3.10: Production of bovine hides and skins (wet salted weight) from Brazil (1995 - 2012).

Production of Bovine Hides and Skins from Brazil, Wet Salted Weight (In Thousand tonnes)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Thousand tonnes	492.1	529.3	529.3	529.3	610.8	622.9	670	690	710
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Thousand tonnes	730	788.6	824.5	846.5	808.8	789.3	788	782	796

Source: (FAO, 2013:23)

The following table reveal the exports of bovine hides and skins in its wet salted weight from Brazil from 1995 to 2012.

Table 3.11: Exports of bovine hides and skins (wet salted weight) from Brazil (1995 - 2012).

Exports of Bovine Hides and Skins from Brazil, Wet Salted Weight (In Thousand tonnes)									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Thousand tonnes	6.8	19.2	19.2	19.2	8.8	3.2	7.4	7.2	5.6
Value USD Millions	5.1	13.8	3.7	1.4	5.3	4.8	2.5	2.3	2.5
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Thousand tonnes	5	5.9	6.9	1.5	2.1	2.4	6.4	2.6	2.5
Value USD Millions	2.3	2.5	2.7	1	2.4	1.6	5.8	3	3.2

Source: (FAO, 2013:58)

It is evident from tables 3.6, 3.7, 3.8, 3.9, 3.10 and 3.11, above, that even though South Africa produces a significantly smaller quantity of bovine hides and skins in its wet salted weight than India and Brazil, it exports drastically more than these two countries. Export bans and taxes have been popular means of providing support to tanning and manufacturing in exporting countries. The DTI (2011b:4) defines an export tax as: “a tax, levy or charge that is collected on goods that are exported’’. According to the Department of National Treasury (DNT, 2012:3), several instruments can be used to achieve this objective:

- Export ban – allows for zero exports, it is an extreme form of quota.
- Export quotas – allows for exports but restricts the quantity exported.
- Voluntary export restraints – are agreements between an importing and exporting country for the exporting country to voluntarily restrict its exports.
- Export taxes – an export tax is a tax levied on goods destined for the export market.

Export bans are prohibited under the WTO, but not export taxes. The WTO considers export taxes to be a form of export restriction seeing that they have the effect of reducing the export volume of the product being taxed. Other forms of export restrictions include regulated exports and supervised exports. But, of the policy options that can be used to restrict exports, taxes are generally preferred because they are more credible, transparent, simple to administer and can also be a source of government revenue.

Governments that make use of export taxes as trade and industrial policy instruments, typically argue that they can assist them in meeting one or more of the following objectives (DTI, 2011b:4):

- Promoting economic diversification or encouraging product beneficiation.
- Promote downstream industries to diversify exports.
- Improving the country’s terms of trade.
- Reducing commodity price fluctuations and inflation.

- To assist in alleviating unemployment.
- Retaliation policy or strategic response to tariff escalation in other countries.
- Boosting government revenue collection.

As far as the WTO is concerned, export taxes are not prohibited. WTO regulation dealing with export restrictions is relatively limited. By restricting or prohibiting exports from a country, domestic supply is increased and prices in that country are reduced. The increased supply of raw material encourages activity in the tanning and leather manufacturing industries, however, the reduced prices also weaken returns to farmers and discourage collection of material (FAO, 2013:12).

However, it must be noted that an export tax can be a blunt instrument. Superior forms of policy instruments do exist that can outperform an export tax. Therefore, a thorough analysis and consideration of the appropriateness of an export tax is required before it can be implemented.

The South African leather value chain will be discussed next. It must be noted that the theoretical foundation of the supply chain will be discussed in chapter 5.

3.4 The South African leather value chain

In order to understand the South African leather industry in its entirety, the performance of the different links in the South African leather value chain will have to be analysed. Daniels et al. (2011:446) defines the value chain as: ‘’the set of linked value creating activities an organisation will conduct to design, produce, market, distribute and support a product”. Robbins et al. (2013:396) refers to the value chain as an entire series of activities that result in value being added at each step, from the raw material to the finished product. The complete automotive leather value chain is operational in South Africa and has developed well under the MIDP. The workings, operations and strategies of the leather value chain in South Africa is a critical component of the study, because the APDP will seek to increase beneficiation of raw materials that will result in increasing value addition within the value chains it

possesses. To create value is an important aspect, whether domestically or internationally, and this is what the South African government is aiming to achieve with its policies and objectives.

A developmental economic policy that the South African government adopted in 2010 became known as The New Growth Path (NGP). Because of the many developmental challenges within the country, such as: inequality, unemployment and poverty, the NGP focuses on placing the South African economy on a production-led growth trajectory in an effort to combat and reduce these challenges significantly. A minimum of five million new jobs must be created by 2020, as outlined in the NGP, and in order to achieve this goal, six key sectors have been identified to stimulate growth and job creation. Manufacturing is one that has been identified as a key sector seeing that manufacturing output accounts for 15% of the country's GDP, and the automotive industry accounts for approximately 30.2% of manufacturing output (AIEC, 2015:5).

The APDP is an instrument of industrial policy and follows a route that contributes to government's economic development objectives as outlined in the NIPF, IPAP, NGP and the National Development Programme (NDP). This simply means that it must support industrial development and upgrading, employment creation, and increased value added domestically and to exports.

South Africa has an abundance of natural resources and raw materials whereof a specific focus is to maximise domestic processing. This policy framework prioritises the raw materials and minerals value chains for enriched beneficiation as part of the mainstream economic activities towards the achievement of its objectives. In essence, although South Africa is host to an abundance of natural resources and raw materials, the country can be broadly classified as an economy with inferior levels of raw material beneficiation, because a large proportion of its resources and raw materials are exported in a semi-processed state instead of products that are completed or semi-completed, which have a higher value (DMR, 2011:1).

According to the Department of Minerals and Resources (DMR, 2011:3), beneficiation entails the “transformation of a mineral / raw material (or a combination of minerals / raw materials) to a superior value product, which can either be utilised domestically or exported’’. According to the DMR (2011: ii), the terms “beneficiation” and “value addition” can be used interchangeably.

Downstream value addition includes capital and labour intensive activities. Smelting and refining can be classified under capital intensive activities, whilst craft jewellery and metal fabrication, such as machinery and equipment manufacturing, can be classified under labour intensive activities (DMR, 2011:3). Side-stream value addition includes: human resource development; research and development; the infrastructure (e.g., power, logistics); and inputs such as capital goods, consumables and service goods (DMR, 2011:3).

In order to enhance value addition, the beneficiation strategy seeks to unlock and maximise downstream and side-stream values that will give rise to potential opportunities. The total beneficiation of raw materials is maximised when both side-stream and downstream links are combined.

The beneficiation strategy will ensure that a framework exists to transform the country’s comparative advantage of being a resource economy to a national competitive advantage. The strategy is closely related to the national industrialisation programme, which intends to promote the creation of decent employment, make exports more viable and create diversity within the economy.

South Africa, by adopting this strategy, will ensure that a framework exists to promote the development of the country’s raw materials value chains. The direct benefit thereof is that the entire population of South Africa will stand to benefit because the raw material wealth will be beneficiated to the final stages of the value chains. The aim of this strategy is to highlight a strategic focus for South Africa’s raw materials industries in terms of developing and expanding the beneficiation initiatives

within South Africa right until the final stages of the value chains. This will ensure an increase in value added activities within the country.

According to the current Minister of Trade, Davies, South Africa's remaining mineral resources are perceived to be worth in the region of R2.5 trillion (BD, 2013). The Minister further added that the goal is to extract a higher economic value from these resources by extending the processing to the final stages of the value chains before exporting, which will increase value addition within the country, such as employment.

Davies goes further to explain that industrial minerals could be accessed and be used as a competitive advantage for the domestic manufacturing sector. By access to industrial minerals, it simply means having it available when required and in the correct form for downstream manufacturing that is also price competitive. If South Africa can achieve this goal of enriched domestic beneficiation and access to industrial minerals, then this will attract many more industrial investments in the country.

For over a century South Africa has been a resources economy. As South Africa is developing towards a more coordinated industrialisation era through its industrial policies of value addition in the country, the role of the country's natural resources and raw materials as input materials become a lot more important in the short to medium term. The South African government's industrial policies and objectives will be achieved at a higher cost if a large proportion of the country's input materials are not sourced at a competitive price within South Africa.

The importation of manufactured goods has been dominant in South Africa's global trade coupled with the export of raw materials (DMR, 2011:20). The result thereof is that economic development as well as employment opportunities is lost within the country. Therefore, the beneficiation strategy for South Africa regarding natural resources and raw materials proposes a coordinated approach to encourage the increase in the beneficiation of minerals, resources and raw materials through the development of value chains (DMR, 2011:20).

South Africa can benefit directly and indirectly by strategic intervention. One of the direct benefits is that by extending the value chains to the final stages, increased diversity and employment will be achieved in South Africa. If there are any limitations and restrictions to beneficiation, this will require government, along with relevant stakeholders, to intervene in overcoming this as the risk of not implementing beneficiation within South Africa's minerals and raw materials value chains is too high for the country (DMR, 2011:21).

According to the DMR (2011:21, 22), some of the crucial intervention methods that will guide a coordinated beneficiation strategy in South Africa's mineral commodities and raw materials are:

- Regulatory incentive.
- To unlock intrinsic values from South Africa's minerals and raw materials through research and development by means of new products and technologies that support domestic beneficiation.
- Producers who are encouraged and committed in supplying minerals and raw materials to support domestic beneficiation, and having a sufficient supply readily available.
- Enhance skills development that will optimise domestic beneficiation.
- To ensure that there is sufficient energy supply, as well as investing in new generation capacity, pursuing co-generation potential and implementing energy efficiency measures where possible.
- A policy framework that includes access to international markets for domestically beneficiated goods.

While the crucial areas of intervention, listed above, are not limited or mentioned in any order of importance, they indicate the key areas of intervention that industry stakeholders must adhere to and support in an effort to expedite a well-coordinated beneficiation initiative. The beneficiation initiative the APDP focuses on inculcates

significant opportunities for South Africa to maintain sustainable growth of the value chains it possesses, which will aim to benefit the entire economy.

Trade liberalisation has impacted significantly on the performance of the South African leather value chain. Two decades ago, raw material earmarked for the manufacturing of leather was rarely traded and was primarily utilised within the domestic market. Trade liberalisation and the MIDP have caused a shift towards leather being increasingly traded at different stages of beneficiation for the domestic and export market (DTI, 2002:11). For purposes of this study, the primary focus will be on the bovine leather value chain that is being used for automotive upholstery.

3.4.1 Bovine value chain

Bovine hides dominate the supply of leather in South Africa. They are mainly by-products of meat production supplied by feedlots. There are various manufacturers that use bovine leather as a raw material, and there are others that utilise ostrich and other hides as a raw material but, currently, only bovine leather is being used in South Africa for automotive purposes.

South Africa has one of the few geared-up bovine leather value chains in the world that comprises of all five stages of the value chain in a cohesive manner, and is the only one in Africa (DTI, 2011a:8). It rests on a unique natural resource endowment of annual hides and skins removed from large and stable livestock and, therefore, align with the value addition and beneficiation objectives of the APDP. Figure 3.1 reveal the key role-players in the bovine leather value chain in South Africa.

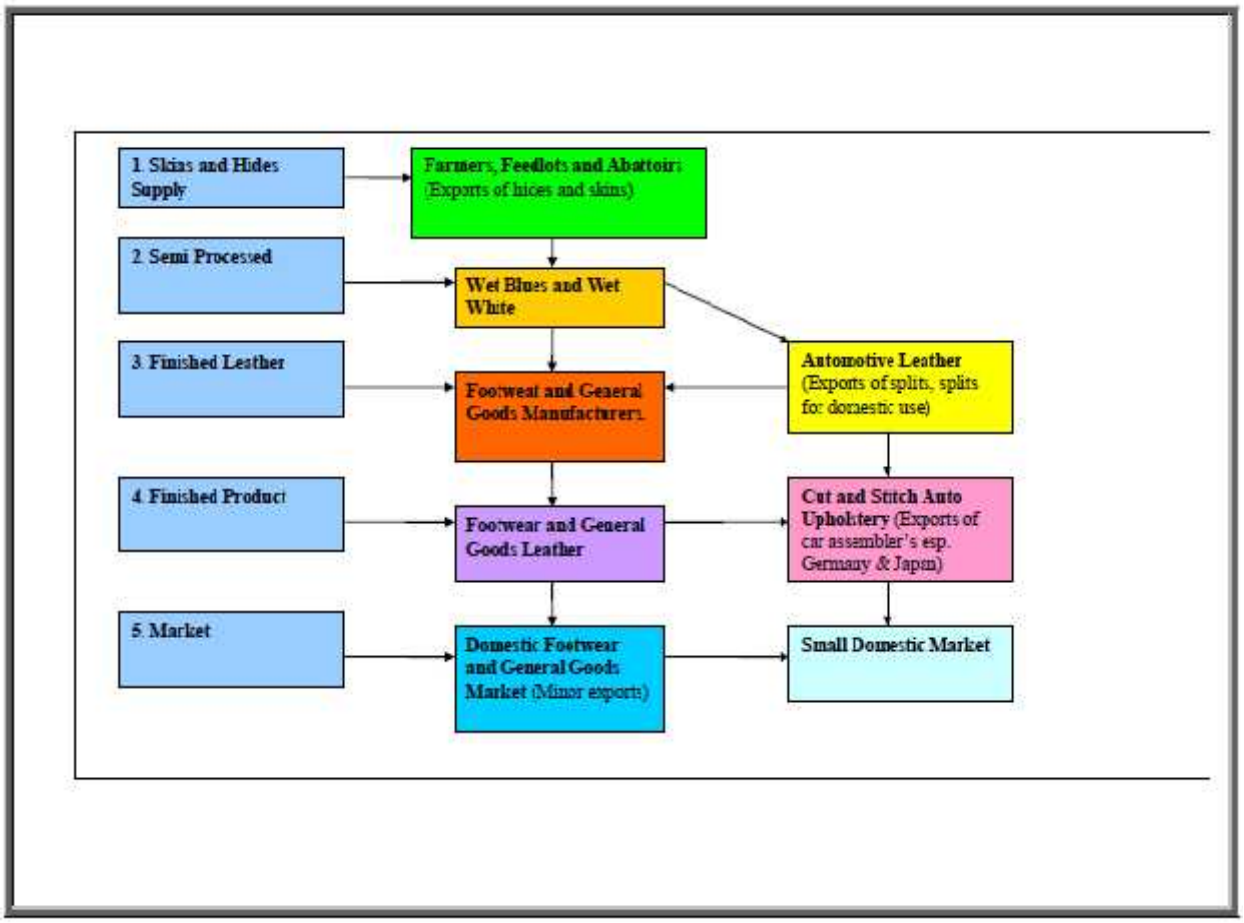

Figure 3.1: The bovine leather value chain in South Africa (2014)

Sources: (ATCG, 2014; DAFF, 2014:48)

The value chain depicted above is separated into five stages:

- Hide supply
- Semi-processed leather
- Finished leather
- Finished product
- Market

The value chain, depicted in figure 3.1, has two points of distribution; it could either lead to footwear and general leather goods or to automotive upholstery. How this is divided depends on the tanning process being followed. Tanning for automotive upholstery has stricter requirements than tanning for footwear or general leather

goods. Therefore, there are separate tanning processes relating to tanneries only producing wet blues, tanneries that produce footwear, and those that only produce automotive upholstery. The specialised, and more costly, processes required for automotive purposes, and the 25% standard value that is regarded as local value added on leather under the APDP, were explained in chapter 2. Now, each stage of the value chain will be examined further.

Stage 1: Hide supply

Hides and skins are inputs to the leather industry. The bulk of hides and skins are primarily recovered from slaughterhouses and farms. Two decades ago, the meat industry was deregulated, which meant that the quality of slaughter has decreased and the exact number of hides produced and slaughtered in South Africa is not possible to ascertain. However, South Africa slaughters over two million cattle and over four million sheep every year (DAFF, 2014:4).

The availability of these products depends on the size of the slaughter facility, the take-off ratio and the species involved. The hides produced can either be of a superior or inferior quality. The superior quality hides are primarily produced by formal abattoirs, and a large quantity of these hides gets processed to the wet blue tanneries (Stage 2) for further beneficiation. The inferior quality hides primarily gets exported because of it being a lower grade, produced by the informal sectors, such as the rural areas. Because the abattoirs have structural links with the primary tanneries and hide traders, they are able to export the lower grade hides that consist of sun dried hides and hand flayed dry salted hides, which are produced by the informal sector.

It must also be noted that, at this stage, there are some abattoirs that export good quality hides rather than channelling them through domestic processing (DAFF, 2014:49). This result in good quality hides not going in to the leather value chain, which results in value addition being lost within South Africa. It includes a loss of employment opportunities and sustainable growth because no beneficiation occurs.

Stage 2: Semi processed leather

At this stage, some value is added because the hides go through a preserving process and become “wet blues”. It is, therefore, also referred to as the ‘wet blue’ stage owing to the ‘wet’ and pale ‘blue’ colour that emanates from the chromium salt being used to tan the skin and hide. Leather is not produced at this stage, but it is rather referred to as the tanning stage that prepares the hide and skin for the finishing tanneries (Stage 3). The main function of Stage 2 is to convert the raw hides and skins in to “wet blues”, which are then distributed to the finishing tanneries (Stage 3) either domestically or abroad. At this point, the hides and skins can be distributed in three different ways depending on its purpose; it can either be distributed:

- Footwear and general goods tanning
- Automotive tanning
- Exports

Automotive tanneries purchase the superior quality wet blues because of the strict requirements, whilst the inferior quality wet blues are purchased by tanneries that manufacture other leather products.

Stage 3: Finished leather

In this stage, the semi-processed hides are converted in to finished leather. The tanneries determine for which purposes the finished leather will be used and then manufacture it for those specific purposes, be it automotive, footwear or general leather goods purposes. Two decades ago, the tanneries’ primary focus was manufacturing for the footwear industry only. It has changed substantially because the domestic manufacturers lost South African market share to imports. This had resulted in two things occurring, tanneries have had to shut operations by closing

down, or tanneries have had to diversify their operations to predominantly manufacture for the automotive market.

The requirements for manufacturing automotive upholstery are quite strict. The automotive re-tanners only use a portion of the hide to manufacture automotive upholstery. There are two layers to a hide, the outer layer, called “the grain”, is utilised for automotive upholstery, whilst the inner layer, called “the flesh” or “second split”, is either exported or utilised by the footwear re-tanners. The tanners are responsible for cutting all the finished leather in to cut-sets for automotive upholstery, or to suit footwear purposes.

Two of the four major automotive tanneries have shut operations in 2014, leaving only two automotive tanneries in South Africa manufacturing automotive upholstery for the industry.

Stage 4: Finished product

In this stage, there are factories involved in the manufacturing of stitched leather seat parts for the automotive industry and footwear and general leather products. Two automotive sewing plants have relocated to Lesotho and two are still operational in South Africa.

Stage 5: Market

There is a large number of imports entering the domestic footwear and general leather goods market from the Far East. Table 3.12 reveal the total footwear imports into South Africa for the period 1995 – 2012.

Table 3.12: Total footwear imports in South Africa for the period 1995 – 2012.

Total footwear imports in South Africa									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Pairs (Millions)	63.37	48.81	35.28	26.31	32.04	49.15	52.78	58.93	90.79
Value (R Millions)	606.00	787.95	877.66	849.18	962.51	1302.55	1571.45	1906.86	1964.90
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Pairs (Millions)	120.82	134.90	141.44	157.83	149.82	146.13	184.00	205.64	202.65
Value (R Millions)	2518.21	3027.82	3780.96	4382.44	4607.50	4687.56	5087.77	6579.51	7697.18

Source: (South African Footwear and Leather Industry Association, 2014)

As revealed in table 3.12, total footwear imports have increased more than threefold since 1995. This is because of the South African manufacturers' inward focus and heavy reliance on the domestic market that has been significantly affected by cheap imports penetrating the South African market from China and India. There is a small number of automotive upholstery that is being used domestically. The automotive industry is export orientated, mainly to luxury car manufacturers in Japan and Germany and this was directly related to the MIDP being implemented.

Trade liberalisation had a negative impact on the domestic footwear and general leather goods manufacturers, as the domestic market has been eroded with cheap imports resulting in a loss of market share. On the other hand, trade liberalisation had a positive impact on the automotive industry and, more specifically, the domestic leather industry as there has been a growth in exports, employment and improved international competitiveness.

Having discussed the value chains above, an interpretation, from a value chain perspective, on automotive upholstery and the footwear sector will now be

discussed. From a value chain perspective, the automotive upholstery sector can be seen as successful for several reasons:

- It is almost exclusively export orientated, be it cut-sets from tanneries or stitched seat covers.
- The manufacturers are manufacturing original equipment for demanding buyers and complying with international standards.
- Almost all the value adding occurs inside South Africa.

The total employment statistics for the tanning industry in South Africa from the year 1995 to 2012 is revealed in the following table.

Table 3.13: Total employment statistics for the tanning industry for the period 1995 – 2012.

Total employment statistics for the tanning industry									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Employment Statistics	2481	2097	2412	2691	2713	4820	4393	3289	4297
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Employment Statistics	4845	4259	3832	3279	3568	3438	3924	4095	3719

Source: (Skin, Hides and Leather Council, 2012)

As revealed in table 3.13, the tanning industry's employment has increased under the MIDP dispensation even though it also has been affected by events outside the programme's control, such as the global financial crisis in 2008/2009. In order to ensure that these employment figures remain stable or increase, the tanning industry is appealing to the South African government for some additional benefit, or incentive, from the APDP, or a benefit outside the APDP, to help sustain this industry. As explained in Chapter 2, the DTI has provided additional vulnerable support to leather interiors, and a 25% standard local value added to leather to suit

automotive specifications under the APDP assisting in the transformation from the MIDP to the APDP.

The footwear sector has not experienced this success from a value chain perspective for the following reasons:

- It is almost exclusively domestically orientated.
- Many are not even part of the global chain supplying original equipment to overseas buyers.
- It has failed to become export orientated because of cheap imports penetrating the South African market, in fact, they have lost the majority of their South African market share to cheap importers.

The total footwear production for the footwear industry in South Africa from the year 1995 to 2012 is revealed in the following table.

Table 3.14: Total footwear production in South Africa for the period 1995 – 2012.

Total footwear production in South Africa									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Rubber, plastic and leather outer soles (Millions)	37,34	21,79	20,01	17,16	15,34	18,92	17,29	18,29	21,95
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Rubber, plastic and leather outer soles (Millions)	18,96	14,34	19,21	21,51	24,95	23,82	23,04	23,62	22,29

Source: (SAFLIA, 2014)

As revealed in table 3.14, footwear production output has declined drastically. The total employment statistics for the footwear industry in South Africa from the year 1995 to 2012 is revealed in the following table.

Table 3.15: Total employment statistics for the footwear industry for the period 1995 – 2012.

Total employment statistics for the footwear industry									
Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
Employment statistics	28351	24878	22841	19990	17537	15742	11972	10801	11340
Year	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Employment statistics	10170	9093	10323	10940	10676	10201	10286	10147	9689

Source: (SHALC, 2012)

As revealed in table 3.14 and 3.15, the footwear industry production has declined considerably and has contributed to the decline in the employment statistics. The employment statistics have decreased by more than 50% from the year 1995. If this trend continues, the footwear industry in South Africa will be close to extinction and will be detrimental to government's policies and objectives regarding job creation.

From what was discussed previously, the particular success of the automotive upholstery in South Africa is directly related to the MIDP being implemented in September 1995. The MIDP and the effects of globalisation on automotive upholstery will be discussed next.

3.5 The Motor Industry Development Programme (MIDP) and the effects of globalisation on automotive upholstery

The MIDP, implemented on 1 September 1995, was the next major step in government intervention. South Africa, at that time, was reintegrating into the world

economy after ending its apartheid era. The trading environment liberalised in to an export oriented economy and South Africa needed to intensify its competitiveness to mark its position in the global environment (Flatters, 2005:2).

The automotive industry in South Africa benefited by this change in the trading environment, as it now looked to compete for international markets and this was assisted by the MIDP policy regime, which aimed to integrate the domestic industry into the global automotive environment. The MIDP provided a competitive advantage to domestic manufacturers seeing that this was a form of deliberate national policy implemented by the government. Under the MIDP, many of the domestic automotive component manufacturers secured links with European-based companies, which was largely because the German OEMs had put pressure on their European suppliers to form links with South African companies when they instituted their export programmes. The EU had extensively displaced its own production to lower-cost developing countries, such as South Africa (AIEC, 2013:72)

The South African automotive leather industry was supported by the MIDP, in the form of the IRCCs, which was a form of duty rebate that was generated under the MIDP. OEMs enjoyed this incentive seeing that components that were of a higher value should generate higher IRCCs, which was then utilised to reduce the duties on other automotive related imports (DTI, 2002:20).

Automotive upholstery responded positively to this incentive because the key features of automotive leather are, it is an expensive raw material and of high value. Because the MIDP incentivised exports premised on its local content value, automotive leather and catalytic convertor manufacturers took advantage of the MIDP, and South Africa became much more attractive to OEMs worldwide to place more business. Under the MIDP and in an environment of globalisation, South African manufacturers have been able to supply the German market with automotive leather seat parts and had a dominant position in the German market, which is the largest user of automotive leather (ATCG, 2013). South African exports of automotive leather seat parts, however, have been on a decline since 2010.

A comprehensive discussion on globalisation will be found in chapter 5 of the dissertation. For the purposes of this chapter, a brief explanation will be given next on how globalisation and its forces had affected the South African leather manufacturers manufacturing automotive upholstery.

3.5.1 Drivers of globalisation

3.5.1.1 Political

From a political point of view, in 1994, South Africa signed the GATT Agreement and was regarded as a “developed nation’s status”. Import duties were determined by a bound rate. Many other major competitors, such as China, India and Brazil, were regarded as a “developing nation’s status”. This meant that the maximum import duty that South Africa could impose on footwear was 35% ad valorem and 15% ad valorem on leather, which was not enough to protect the local industries. Other countries, such as India, have a 60% import duty on raw hides and skins, whereas China has subsidised their local industry, and in South Africa export taxes are imposed on unpolished diamonds, citrus fruit and wine, but not on leather hides (DTI, 2011a:30).

South Africa has already lost a significant share of its automotive leather export business to the EU, which is its main trading partner. It cannot lose any more business as this will have a catastrophic effect on the entire leather industry because automotive leather manufacturing is the backbone of all types of leather manufacturing in South Africa (ATCG, 2013).

3.5.1.2 Technological

From a technological point of view, all technological progresses will impact on businesses almost everywhere in the world because it can directly affect the supply of materials, its products and production processes. The South African automotive

leather industry is well equipped with some of the latest technology in machinery and equipment and is regarded as having world-class manufacturing facilities. It uses state of the art manufacturing facilities, and the processes and designs are regarded to be the latest in technology as required, and imposed, by OEMs. In this regard, a cash grant incentive on qualifying investment in terms of the AIS is available to automotive component suppliers, under the APDP, as explained in chapter 2.

Even though technological innovation has resulted in the reduction of the cost in transport and communication (Lasserre 2012:5), the disadvantage of South African manufacturers is that they are a farther distance away from OEMs in Europe, and this makes them uncompetitive compared to competitors from Eastern Europe. The automotive leather seat parts are mainly exported from South Africa to OEMs in Europe on a Just-In-Time (JIT) requirement, as imposed by OEMs and the end users. Although all the other automotive components exported from the country face the same logistical challenges, leather products are airfreighted to export destinations. According to JALI (2013), airfreight costs give South African manufacturers a cost disadvantage of approximately 14% against an international benchmark price; a disadvantage of 35-40 euros per car set via freight from South Africa, versus an approximately 3-5 euros per car set from Eastern Europe to Germany.

3.5.1.3 Social

From a social point of view, South Africa is renowned to have a fully geared-up and valuable automotive leather value chain that stretches from a cow to a complete sewn seat cover. The South African automotive leather industry is well equipped with some of the latest technology in machinery and equipment. It needs to be noted that the technologies of automotive tanning and sewing plants are amongst the best in the world with state of the art plants, and are regarded as having world-class manufacturing facilities as OEMs worldwide demand it. The brand awareness regarding the South African automotive leather manufacturers is recognised by OEMs seeing that the manufacturers had a dominant position supplying automotive

leather seat parts to the German market, as established under the MIDP, which is the largest user of automotive leather. These seats are then fitted in to luxury vehicles that are exported to destinations all over the world.

South African manufacturers are well known for manufacturing leather sets for premium brands, such as BMW 3-Series and Mercedes C-Class, that are being manufactured in South Africa. For an OEM, it is a must have component that must be sustained from an image, as well as a local content, point of view. According to JALI (2014), stitched leather seat parts can contribute as much as 10% of South African local component content in the local manufacturing of a luxury vehicle. However, the South African automotive leather industry faces a real negative supply image problem under the APDP because of, but not limited to, the following factors:

- Inadequacy of the PI to compensate for a CBU rate of 25% (18% under the SA-EU free trade agreement), or CKD of 20% under which the OEMs calculate their benefit.
- High material costs of leather as this is a material intensive industry.
- A higher logistical airfreight cost of approximately 14% against an international benchmark price, a disadvantage of 35-40 euros per car set via freight from South Africa, versus an approximately 3-5 euros per car set from Eastern Europe to Germany. This makes manufacturers uncompetitive due to a geographical disadvantage.
- The risk of disruptive industrial action during the three-year wage agreements in the automotive industry that may bring manufacturing on a JIT supply to a halt and disrupt manufacturing lines in Europe.

Although South Africa is well known for manufacturing luxury leather sets for prestigious vehicles, the leather manufacturers have made it clear that they are in a troubled state under the APDP. They have declared that they are in a state of emergency, and to a certain extent, this industry is in despair and the government needs to take drastic and immediate action to get it back on track by means of improved APDP support, or alternate support.

This state of the art, world-class industry that portrays an image of South Africa to the outside automotive world, is perceived not to survive under the current APDP benefit, and the only ones to benefit are the competitors from Eastern Europe and other parts of the world. According to World Leather (2013), it must be noted that Brazil's exports of stitched leather seats have reached record levels of exceeding 2.5 million US Dollars in 2013. They are, currently, monitoring South Africa very closely as they aim to maintain this level in the future.

3.5.1.4 Economic

From an economic point of view, in respect of the EU and its trade in Africa as a whole, the South African economy represents the largest trading partner. South Africa has trading relationships around the world and when a comparison is done regarding the 15 most pertinent ones, the revelation is that the EU-SA trading relationship tops the list (Aregbeshola et al, 2011:86). Europe, therefore, remained South Africa's automotive industry's most valuable trading counterpart, accounting for R43.8 billion, or 37.9%, of the country's total automotive imports and exports of R115.7 billion in 2014 (AIEC, 2015:33). South Africa also receives in excess of 70% external assistance funding from the EU, which makes it an invaluable development counterpart (Aregbeshola et al., 2011:87).

Developments in the EU, therefore, have a direct and measurable impact on the automotive industry's overall performance. The governance regarding trade relations between South Africa and the EU are instituted by the Trade, Development and Cooperation Agreement (TDCA). The primary goal of the TDCA is to encourage a free-trade area between the EU en South Africa for a period of 12 years, thereby removing 90% of all trade barriers (AIEC, 2013:37). As of 1 January 2000, the EU-SA Free Trade Agreement on trade, development and co-operation was a reality and this has set the platform for the economic environment in which the two countries operate.

The weak South African currency, which has persisted since 2013, should increase the demand for stitched automotive leather seat parts because the weak rand might change the prospects of sewing plants. If the weak rand persists for the next two or three years, sewing plants might be considered by OEMs to submit quotes again for new vehicle models or upgrades. The South African automotive leather industry is operating in a rapid changing economic environment that has also contributed to the challenges it is facing. The challenges, from an economic point of view, will be discussed under section 3.6 where all the different challenges that the South African leather industry has to contend with are listed.

The challenges of the South African automotive leather industry will be discussed next.

3.6 Challenges of the South African automotive leather industry

The domestic automotive leather industry faces many challenges, some of which fall outside the control of the automotive policy regimes, such as: global economic developments, natural disasters and industrial action, but still might have a significant impact on the sector's operations.

Economically, the global financial crisis that occurred in 2008/2009 had a major impact on the hides and skins market. The sudden drop of growth of world incomes in 2008 and 2009 prompted a contraction in demand for consumer products, including automotive upholstery, shoes and other leather items. The number of hides and skins exported globally decreased by 5%, but prices decreased more dramatically and the global earnings from the export of raw hides and skins decreased by almost 30% from 2008 to 2009 (FAO, 2013:6).

The challenges of the South African leather industry as a whole can still be felt from the effects of the 2008/2009 global financial crisis. The total number of exports of stitched leather seats had dropped from R3 084 million in 2008 to R2 356 million in 2009 (AIEC, 2013:74), that is almost R700 000 worth of exports that have declined

owing to the global financial crisis. In 2010, there was a slight recovery in exports of stitched leather seats, but again, it started declining from 2011 and 2012 and further declined under the first two years of the APDP.

Following the effects of the global financial crisis, another critical factor that drastically affected the leather industry was a natural disaster, namely the volcanic eruption that occurred in Europe in 2010 causing an “ash cloud” to sully the airspace over Europe. The effects of this was that no exports of stitched leather seats could reach OEMs in Germany by air freight for almost three weeks, and there was not enough supply going in by sea, which led to OEMs being delayed with their manufacturing operations. The results of this were that OEMs started seeing South Africa as high risk and an unreliable source.

The next critical factor, which contributed to South Africa being portrayed as high risk and an unreliable source, was the labour strikes that occurred in 2010 that related to the automotive industry’s three-year wage agreement at the time. There were a few major strikes. First the tanneries had a three week strike, followed by OEMs having a two week strike and then sewing plants had a three week strike. This had a major effect on manufacturing and supply of stitched leather sets to OEMs in Europe. The OEMs then regarded South Africa as being high risk and an unreliable source, and started shifting their business away from South African suppliers and started to source more from South America and Eastern Europe. The effects of the disruption in supply of stitched leather sets were felt in 2011 and 2012. It has contributed to the decline in exports from R2 897 million in 2010 to R1 718 million in 2012, a further decline in 2013 to R1 530 million and in 2014 it declined even more to R1 277 million (AIEC, 2015:62).

Another factor that the South African leather industry experiences, is that of the supply side where immense challenges are faced: from the collection of hides and skins, the poor infrastructure relating to the logistics of hides and skins, to quality deficiencies. Statistics reveal that South Africa has a comparatively lower rate of cattle hides’ collection (DTI, 2012:46). These hides are a valuable communal

resource and a commodity that could be processed in to tanned leather and supplied for further value addition in the manufacturing sectors, such as: footwear, automotive and furniture. The hides from emerging cattle farmers in the informal sector are estimated to be 25% of South Africa's cattle slaughter (Impela, 2013:39), and are also thought to be going to waste or attract a low price in exchange. Because the informal sector is not being integrated into the formal value chain, there is a high level of low quality hides that gets exported.

The next major challenge is also a supply side problem relating to the high prices that domestic manufacturers have to pay for South African hides, because of the unrestricted global trade thereof. The international hide market is responsible for setting the prices of hides as a commodity. Because the automotive industry consumes a large and growing number of automotive leather, the domestic slaughter of cattle is not sufficient in fulfilling the demand required by manufacturers (Impela, 2013:11). Domestic suppliers, therefore, inherently know they can fetch world parity prices for their produce, resulting in manufacturers being limited with the quantities of good quality raw materials that they can purchase, thus limiting the manufacturing of quality leather cut-sets domestically. In the absence of a policy to prevent the export of raw hides, the downstream industry is not receiving an adequate, and price competitive, supply of good quality raw hides and semi-processed leather. A policy is urgently needed in view of the potential, and threateningly large, downsizing of the competitive automotive sector, which is a key tradeable export industry of vital importance to South Africa's industrial base. Superior quality feedlot hides that can further be beneficiated to suit automotive purposes are being exported instead of being funnelled into domestic processing.

Coupled with the high prices of hides are the increasing costs of labour, chemicals, waste management fees, water and electricity. This also contributes to the rising costs manufacturers are facing doing business in the country. Seeing that the South African automotive leather industry has to contend with rising costs, they also have to contend with the competitive pressures amongst OEMs. As the OEMs' competitive pressures rise, they are imposing, and increasing, competitive demands onto their

component suppliers. According to Barnes & Morris (2008:38), the following are some general competitive demands that component suppliers have to contend with:

- Fixed term cost-down contracts. When manufacturing for an OEM, the costs to produce or manufacture the product are under heavy scrutiny in an attempt to improve and lower the production or manufacturing costs. This is partly related to the percentage cost-down contracts that first-tier suppliers have to abide by because of the stringent demands imposed by OEMs.
- Once-off price reductions on new products. OEMs further impose that each new product, component or model that is to be produced or manufactured must be done at much lower prices, as much as 20% less. Whilst trying to lower costs associated with the production or manufacturing processes, the quality of the product, component or model must also be improved.
- Enhanced JIT supply. JIT deliveries are a major aspect for OEMs; this is because OEMs want to manage their working capital more efficiently, enhance their internal control operations and reduce overhead costs by imposing a JIT supply. OEMs expect 100% delivery reliability. If for any reason an OEM has to pause, or stop, manufacturing operations because of non-delivery, financial penalties will be lodged against the manufacturer and the contract will go under review, which can lead to a termination of the contract.
- Improved quality performance. A decade ago, the failure rate to customers used to be in the region of about 1 000–2 000 parts per million being returned, now OEMs are a lot more stringent regarding their product quality. They expect, and impose, targets of not more than 20–30 parts per million being returned. In order to ensure that manufacturers adhere to this quality performance requirement, manufacturers are expected to obtain accredited quality management systems such as the ISO/TS 16949.
- Adherence to environmental standards. Component manufacturers and suppliers need to obtain ISO 14001 accreditation, because OEMs also impose this requirement in certain aspects of automotive manufacturing.

Owing to the nature of competitiveness, OEMs are demanding more value at reduced costs, resulting in first-tier component manufacturers and suppliers to intensify their manufacturing operations by abiding by this, and this result in the entire supply chain increasing and intensifying their competitiveness

Owing to the impact of the above factors, the domestic upstream tanneries and sewing plants have become internationally uncompetitive. Eastern Europe manufacturers can manufacture automotive leather seat parts at a cheaper rate than South African manufacturers and this makes them much more attractive to OEMs. In order for the APDP to be effective with regards to automotive leather manufacturing in South Africa, it needs to provide higher incentives that will combat the higher costs associated with airfreight that put South African manufacturers at a logistical disadvantage compared to Eastern Europe manufacturers.

Although all the component suppliers in South Africa face global sourcing challenges, the automotive leather industry, in view of its perceived special circumstances, require additional support. Complete stitched leather seat covers and parts have consistently remained one of the top automotive component categories exported under the MIDP. Automotive leather was South Africa's largest component export from the year 1995 to 1998 and then second largest component export from the year 1999 to 2011, but dropped down to fourth place in 2012. In 2013 and 2014, stitched leather seats remained at fourth place but with a reduced export value (AIEC, 2015:63).

Automotive leather has received vulnerable status support under the APDP due to the transition from the MIDP to the APDP, but it will be phased down from 2015 onwards. According to the ATCG (2014) and JALI (2014), some form of increased additional support is required to improve and enhance the competitiveness of South African automotive leather manufacturers. It should result in rebuilding OEMs' faith in the South African automotive leather industry, and the end result should be that OEMs will place more business and future contracts in South Africa for domestic manufacturing and exports. Automotive leather, as a component, can reignite its

stature by once again becoming one of South Africa's top export components. This, surely, will increase employment levels, as well as value addition, which are a government priority and the purpose of the APDP.

The change of the automotive policy regime from the MIDP to the APDP and the effect on automotive leather upholstery will be discussed next.

3.7 The change of the automotive policy regime from the MIDP to the APDP and the effect on automotive leather upholstery

The APDP, implemented on 1 January 2013, intends to elevate the domestic automotive industry to the next level. The APDP's vision and objectives include that 1.2 million units be manufactured annually and an associated broadening and deepening of the component manufacturing basket in South Africa (AIEC, 2014:13).

Under the MIDP, only sewing plants received the IRCCs because only the sewn sets were being exported to OEMs, and then the OEMs had contracts with the sewing plants to buy back the IRCCs from them. The OEMs had an incentive to place their business in South Africa and they were actively supporting leather seats because of the IRCCs they were receiving, which in return they could use to offset any imports of components or vehicles they wanted to obtain. This has resulted in more business for the sewing plants, which in turn resulted in more business for the tanneries and the whole value chain benefited. According to the ATCG (2013), it is perceived that the OEMs no longer need these PRCCs under the APDP because this benefit is too low and, therefore, there is no incentive to place their business in South Africa.

The APDP's focus is to ensure that the sector has a greater impact on the economy and on national employment levels by increasing local components' manufacturing, and sourcing more of the semi-finished goods in the domestic market (AIEC, 2014:14). The APDP, therefore, only affords sewing plants PRCCs as it regards sewn sets as an eligible component under the APDP.

According to the ATCG (2013), the APDP's vision is in line with its objectives, but not in line with the implementation. The reason therefor is that the largest amount of value addition within the value chain, from a raw hide to a sewn set, is in the tanning and cutting stage (62% - 67%), and the APDP only rewards PRCCs to sewing plants where the value addition is approximately one-third (20% - 23%) of the tanning and cutting stage. The following table reveal the main value-added processing stages in the manufacturing of automotive leather.

Table 3.16: Main value-added processing stages

Process	Green Hide	Wet Blue	Auto Leather Cut Kits	Auto Leather Car Sets
Process	Skinning	De-liming	Dying	Design
	Machine flaying	Chemical treatment	Re-tanning	Template engineering
	Beaming/fleshing	Splitted	Fat Liquoring	Perforation, embroidery and embossing
		Shaved	Drying	Cutting of roll stock material
		Sorting	Painting and embossing	Packing and integration of B part kits
		Logistics	Testing to OEM specs	CNC and manual sewing
			Cutting	Verification and rework
			Milling	Packaging
			Sorting	Logistics
			Logistics	
Value Added	**5% - 8%**	**24% - 25%**	**38% - 42%**	**20% - 23%**

Sources: (ATCG, 2013; JALI, 2013)

As revealed in table 3.16, above, the largest amount of value is being added within the leather value chain. The DTI regards cut-sets as not eligible for benefits under the previous MIDP and current APDP policy regime. The ATCG, therefore, does not receive any benefit from the automotive desk at the DTI, and has asked to be placed under the CFTL desk so that the ATCG can receive some benefit to enable them to have a greater impact on value addition and employment creation. According to the ATCG (2013), the purpose of re-classification would ensure the following: the future sustainability of the tannery industry; enhance opportunities to diversify leather product manufacturing; build on job creation; invest in research and development; promote more downstream beneficiation; and invest in training and skills development through the International School of Tanning Technology (ISTT).

The APDP, in respect of the implementation of its objectives, should provide PRCCs, or some other form of government support, to the tanneries because they are model specific to the German markets who are the largest users of South African automotive leather (ATCG, 2013), and they are in line with the APDP by adding the biggest amount of value to the automotive leather value chain. According to the ATCG (2013), only approximately 7% of cut-sets are being used domestically, so tanneries are shifting their focus to becoming more export driven. This will result in cut-sets being directly exported without reaching the sewing plants, and will drastically affect employment levels and value addition, which will be soaring to governments' Industrial Policy Action Plan 2 (IPAP2). The APDP is seen as an important leverage instrument within the wider Customised Sector Programme (CSP) of the government's policy framework that, is assumed, will dovetail into the wider IPAP2 for the automotive sector.

The IPAP 2013/14 - 2015/16 is an industrial policy instrument to encourage development in South Africa as provided, and set out, by the National Development Plan (NDP). One of the critical goals and outcomes of governments' IPAP2 is to ensure South Africa's manufacturing sector's growth and diversification is promoted and encouraged in an effort to ensure that industrial decline does not occur (DTI, 2013f:6). Manufacturing plays a critical role in all economies because it serves as a

driver for the creation of employment opportunities, be it directly or indirectly, and this will increase the possibility of higher growth, resulting in a higher GDP for the economy.

The IPAP 2013/14 - 2015/16 is in its fifth iteration. It represents a continuous process of learning and improvement of previous iterations. The following is a number of objectives that it aims to achieve (DTI, 2013f:10):

- To strengthen the DTI divisions that are in charge of important related work, such as: trade policy, industrial development and incentive support and enterprise development.
- To remove Key Action Plans (KAPs) where necessary and to add new ones where relevant and appropriate.
- To deepen and strengthen sector plans by adding new KAPs in an effort to correct market failures in key sectors that are based on policy research and stakeholder engagement.
- To contribute to government departments by means of intra-governmental alignment and co-ordination across a range of action plans.
- To strengthen and increase oversight of the time-bound action plans by parliament and society as a whole.

Government policy, as seen above, seeks to ensure a restructuring of the economy to set it on a more value adding, labour intensive and environmentally sustainability growth path.

The importance of the South African automotive leather industry's success, and why leather interiors are treated as vulnerable under the new dispensation (APDP) will be discussed next.

3.8 The importance of the South African automotive leather industry's success

South Africa has a large cattle population where the animal husbandry is of a high standard, and scientific breeding and agricultural sciences are being used. There is a well-established commercial feedlot system and between 70 to 75% of cattle slaughtered in the formal supply chain are from the feedlot system (Impela, 2013:39).

The largest number of feedlots and slaughtering taking place within South Africa are in Gauteng and neighbouring provinces. Gauteng tanneries process by far the highest number of hides to finished leather and also employ the highest number of employees within the tanning industry (Impela, 2013:40). The Gauteng province has a good infrastructure to serve tanneries with reliable transport, energy and water, and has a large proportion of the automotive industry within its borders, which are a market for automotive leather. The province has the highest population in South Africa, and there is an abundance of labour readily available that can be skilled in leather processing and down-stream beneficiation. The Gauteng province receives the majority of cattle and hides standing at feedlots from other provinces (Impela, 2013:40).

South Africa is fortunate to have an efficient feedlot system where hides produced are well protected from thorn trees and ticks, and if animals have sustained any injuries, the feedlot system will ensure that these wounds are given time to heal. This also increases the quality of animals slaughtered in South Africa, as the shape and yield after flaying the raw material is of a high quality. The high quality raw material can be seen in the tight fibre structures of South African hides, which is utilised for the production of different types of leather, such as suede and other general leather goods (Impela, 2013:39).

There are two types of cattle that can be farmed; the first is the humped type of cattle that is not very suitable for automotive upholstery purposes because of the awkward shape it produces. This makes it increasingly challenging to manufacture the large panels required for the automotive industry and South Africa is fortunate to not farm these types of cattle in big quantities. The second type of cattle farmed is the non-

humped type and in South Africa this is more dominant (Ballard, 2001:12, ATCG, 2013:12). Non-humped cattle are of a higher quality than humped cattle and, therefore, the bovine hides produced are of a high quality and over 60% are suitable for automotive purposes (DAFF, 2014:3).

South Africa has one of the few geared-up bovine leather value chains in the world that comprises of all five stages of the value chain in a cohesive manner, and is the only one in Africa, as established under the MIDP (DTI, 2011a:8). South Africa has a dominant position in the component industry, and manufactures leather seats for premium brands such as BMW and Mercedes-Benz, as part of the German automotive market which is the largest users of automotive leather.

Under the MIDP, the South African automotive leather industry achieved international competitiveness and is integrated within the global value chains of some of the world's leading OEMs. The South African leather industry, however, has become vulnerable under the APDP, which focuses on growing local value addition. The APDP policy of growing value addition needs to ensure the sustainability of the entire value chain in line with the objectives of the APDP.

Unlike under the MIDP, export material intensive component industries are severely penalised under the APDP and this had put automotive leather in a severely vulnerable position. Additional vulnerable support, however, has been provided to the leather industry as covered in Chapter 2. The PRCC, in respect of components, is calculated and issued in Free on Board (FOB) terms, and if this is used to import components, the duty saving is the applicable 20% import duty. When the PRCC issued in respect of components is used to import vehicles, a downward adjustment of 20% to the value needs to be made. The PRCC, in respect of vehicles, is calculated and issued in FOB terms and if the CBU duty is 25%, the duty saving is 25%. However, for the SA-EU trade agreement, this duty is much lower at only 18%, and German OEMs calculate their benefit on the 18%, which brings the APDP PI benefit as a percentage of sales price down to just above 4%, whereas the MIDP would give this industry a benefit of approximately 9% (JALI, 2013).

In respect of the PRCCs, only the sewing plants in the value chain gets a benefit from this incentive, and if it is too low for the OEMs, they are not interested because there is no real incentive for them to place their business in South Africa. According to JALI (2014), leather car sets are exported expensively via airfreight from South Africa to OEMs in Europe, therefore, from the start it is at approximately 14% disadvantage in price if compared to sets manufactured in Eastern Europe, because the APDP benefit does not cover the logistical costs. This is further compounded by escalating variable costs that have triggered red lights in OEMs' decision making, and the industry has become increasingly vulnerable (JALI, 2014).

South Africa has world-class manufacturing plants and has to compete with world-best-prices. If the automotive leather value chains with its world-class manufacturing plants were to disappear, the rest of the leather industry in South Africa would also disappear. South Africa would join other parts of the world in just exporting hides without any value added, and this will be catastrophic to governments' IPAP2 objectives, which are to develop local content and grow sustainable jobs.

According to the ATCG (2014), it is of great importance that the automotive leather industry succeeds because automotive leather is the backbone of leather manufacturing in South Africa, representing more than 60% of leather manufacturing and providing an integral link between automotive tanning and the other tanning sectors. The tanning industry has become increasingly vulnerable. Within the ATCG, which has only been established in 2010, the recorded figures for hides processed into cut-sets have declined since 2010. There has been a drop of hides processed into cut-sets for automotive leather seat parts, decreasing from 1.72 million hides in 2010 to 1.2 million hides in 2012, representing a 30% decrease (ATCG, 2013:16). The following table reveal the number of hides processed in to cut-sets from the year 2010 – 2012.

Table 3.17: Hides processed in to cut-sets for the period 2010 – 2012.

Hides processed in to cut-sets for the period 2010 - 2012			
Year	**2010**	**2011**	**2012**
Hides processed (Millions)	1.72	1.6	1.2

Source: (ATCG, 2013:16)

As revealed in table 3.17, the decrease in hides processed in to cut-sets has contributed to employment decreasing. In 2010 there was a slight recovery in global growth and the EU, but owing to the five week labour strikes that occurred in South Africa, it affected the manufacturing processes of manufacturers and OEMs started to shift their business to Eastern Europe.

Table 3.13 revealed the employment levels of the entire tanning industry. Table 3.18 reveal the employment of the ATCG in order to make a comparison. The recorded employment levels from the year 2010 of the ATCG and the total employment levels which includes the ATCG in the tanning industry, is revealed in the following table.

Table 3.18: Total employment statistics within the ATCG for the tanning industry for the period 2010 – 2012.

Employment statistics within the ATCG			
Year	**2010**	**2011**	**2012**
ATCG Employees	3 165	2 775	2 305
Total Employees in tanning industry including ATCG	3 924	4 095	3 719
Difference	759	1 320	1 414

Source: (ATCG, 2013)

As revealed in table 3.18, automotive leather tanning is a large and integral part of South Africa's leather value chain. It represents the backbone of leather

manufacturing in South Africa and, if automotive leather tanning is to disappear, it is most likely that all leather manufacturing in South Africa will become extinct seeing that raw hides and skins will be exported without any value added, which defies the objectives of the APDP. The ATCG employees have decreased from 2010 to 2012 by 27%, and unless some form of additional government support is obtained, as the APDP progresses, they are becoming increasingly vulnerable.

The tannery and sewing industries are the most vulnerable of all the links in the value chain. A large proportion of an automotive tanner's asset base is invested in land and civil construction, such as: effluent plants; concrete stands for machinery; concrete dams and tanks for water; and effluent, drainage and loading ramps. These tanneries are intrinsically bound to their current location and cannot be moved to a new location without prohibitive costs involved in moving large equipment, rebuilding civil structures, and rehabilitating vacant land and buildings to be suited for a new tenant. This was proved by the closure of Feltex in 2010, a major tannery trading in South Africa. This further proved that the only option available to a tannery is to close down completely because it cannot be trans-located as a going operation. In 2014, two more major automotive tanneries have shut operations completely.

According to the ATCG (2014), automotive leather sewing plants can easily trans-locate their operations, or portions thereof, either domestically or internationally, without eroding their asset base and if they relocate out of the country, as has happened, then employment and contribution to the economy is lost within South Africa whilst benefiting others abroad.

The sewing industry, according to JALI (2014), has become increasingly vulnerable because of where they link into the value chain. That is, where the chain begins to crumble and South Africa is not really on any OEMs' leather priority demand list in respect of leather car sets. It is true that sewing plants can be scaled down, relocated or closed as is currently happening because of poor demand coming from Europe. Evidence thereof can be seen with job losses increasing since 2005. The

following table reveal the job losses per year from 2005 to 2014, as the automotive leather industry only started experiencing job losses since 2005.

Table 3.19: Job losses per year from 2005 to 2014 and the consequences thereof.

Job losses per year from 2005 to 2014 and the consequences thereof					
Year	**2 005**	**2 006**	**2 007**	**2 008**	**2 009**
Employees	9242	8477	8222	8115	7411
Summary of consequences	Nil	Nil	Eagle Ottawa demise	Bader sewing relocated	World financial crisis
Year	**2 010**	**2 011**	**2 012**	**2013**	**2014**
Employees	8338	7377	4940	4410	4798
Summary of consequences	Feltex demise/ Slight recovery but strikes occurred	Full accumulated effect of supply risk level and insufficient APDP is felt through contract losses	APDP commences but with a declining automotive leather industry without a viably improved APDP for vulnerable industries	Closure of Zenda and Mario Levi finished leather tanneries	Two sewing plants start to relocate to Lesotho

Source: (JALI, 2015:1)

It is evident from table 3.19, above, that the current state of affairs is not looking good. OEMs that are responsible for over 90% of exports of automotive leather seat parts have consistently argued for a much higher PI benefit in order to continue to source from South Africa, which would help these industries to develop economies of scale. Automotive leather tanneries and sewing plants are not an industry that can be ignored. It has taken over 15 years to develop this industry into a highly specialised capital and labour intensive world-class industry.

According to JALI (2014), it was agreed with government that the vulnerable industries' end products get an improved level of PI of 80% per annum and standard value added will be improved to 40%. But, the sewing industries and the relevant

OEMs maintain that this improvement, despite attempts to improve the sector's international competitiveness, is still not enough and should be maintained over the lifespan of the APDP. The improved support will be scaled back in 2015, reducing by 5% from 2015 to 50% by 2020, and it will then be at the same level for all component industries. OEMs' contract development is tied to long lead and manufacturing times, and a reduction in an improved benefit will play havoc with cost planning and will create an extremely difficult position for both the industry and OEMs.

It is for these reasons that the tannery and sewing industries are regarded as being the most vulnerable, whilst still contributing the most value addition in the value chain in line with the objectives of the APDP. The positive or negative impact of the new policy regime on the domestic leather industry will, therefore, depend on how the sector re-adjusts itself to cope and abide with the new business rules.

3.9 Summary

Chapter 3 focused on the South African leather industry. Over the last two decades, leather manufacturing in South Africa has changed significantly. South African leather manufacturers are now primarily focused on the automotive sector, which has established a world-class value chain under the MIDP, and has created a large demand for high quality hides for automotive leather seat parts. On the other hand, the country's decreasing footwear sector faced significant challenges over the last two decades because of trade liberalisation.

The South African automotive leather sector is the primary driver of the South African leather industry. It is a global industry and has a huge stake in the German market as they are the largest users of South African automotive leather seat parts. South Africa had a dominant share of the German vehicle market in supplying automotive leather seat parts, but has lost a significant share of their German business to competitors from mainly Eastern Europe. Eastern Europe, currently, manufactures automotive leather seat parts at greatly reduced prices thereby making South African manufacturers, and the value chain, internationally uncompetitive for

OEMs when making global sourcing decisions. This is further negatively compounded because the APDP, despite additional vulnerable industry support to the domestic leather industry still provides reduced incentives, compared to the MIDP, that are not sufficient to counter the logistical airfreight costs that manufacturers are encountering, which makes them uncompetitive in export markets. However, higher volumes under the APDP, by doubling vehicle manufacturing in the country to 1.2 million vehicles per annum by the year 2020, could provide opportunities for the automotive leather companies.

The automotive leather tannery and sewing industry plays a major role and has been an integral part of a highly successful value chain supplying automotive leather sets, trims and stitched leather seats to the OEMs, both locally and internationally. The domestic automotive leather industry needs greater assistance and support as is occurring in other parts of Africa and the world. All role-players need to step up and ensure the sustainability of this industry throughout the value chain in order to ensure that South Africa does not become like other countries that export their raw hides and skins without any value being added. The South African government, along with the leather industry and all industry role-players, need to constructively collaborate to meet the objectives of the APDP to ensure a positive impact on the domestic leather industry going forward. The following chapter discusses the South African automotive industry in the current operating trading environment.

Chapter 4

The South African Automotive Industry

4.1 Introduction

Chapter 3 focused in great detail on the South African leather industry and explained the importance thereof within the South African automotive industry. Chapter 4 focuses on the evolution of the South African automotive industry and provides a review since the early 1920's. The background information discusses the origins of the South African automotive industry; the global and South African automotive industry; key characteristics of the South African automotive industry; the structure of the domestic automotive industry; the key role-players in the domestic automotive industry; the performance of the South African automotive industry; as well as the South African leather industry under the MIDP and APDP. The chapter contributes to a better understanding of the South African leather industry within the South African automotive industry.

4.2 Origins of the South African automotive industry

The manifestation of the South African automotive industry had its origins in the offices of the Ford Motor Company in Detroit and the General Motors Export Company located in New York. Ford already had an established export trade to South Africa via one of its agents who was located in Port Elizabeth, and General Motors (GM) had an existing export trade through its own export company. By the early 1920's, the first local automotive industry was formed when Ford and GM both entered the market as manufacturers. Owing to the anticipation of tariff concessions being implemented by the South African government, both firms, Ford and GM did not hesitate in setting up assembly operations in South Africa (Duncan, 1993:67). In 1924, Ford was the first motor vehicle manufacturer to establish a subsidiary company in South Africa to assemble CBU vehicles from completely knocked down (CKD) kits. This was followed by GM in 1926 and for both firms to move forward with

the South African initiative, amongst others, was part of a global expansion (Duncan, 1993:68).

Automotive manufacturing in South Africa started in the 1920's. The high tariffs implemented on CBUs, as well as the automotive market that was growing rapidly, attracted initially a significant number of foreign OEMs, and this led to the establishment of assembly plants in the domestic market. These established operations had good profit returns in many instances, however, it must be noted that, in a global perspective, it was small with correspondingly high unit costs (Black, 2001:6, Lamprecht, 2006:56, 57). Manufacturing was predominantly directed at the domestic market. South African assembly plants acted as markets for CKD packs, but were still kept in isolation from the global manufacturing networks of the parent companies (Lamprecht, 2009:212). Table 4.1 reveal the development of automotive policy in South Africa.

Table 4.1: Development of automotive policy in South Africa.

Policy Measures	Period
1) High Tariffs	1920 - 1995
2) Local content requirements by mass	1961 - 1987
3) Local content requirements by value	1989 - 1995
4) Import-export complementation (MIDP)	1995 - 2012
5) Value addition (APDP)	2013 – 2020

Source: (Damoense and Simon, 2004:252; AIEC, 2013)

The first phase of automotive industry protection, which lasted until 1961, was that of import substitution and favoured simple assembly for the domestic market (Lamprecht, 2009:212). In order to facilitate growth in the industry, the government made use of tariff regulations as well as local content requirements (Barnes & Black, 2013:5, 6).

The secondary industries in South Africa expanded rapidly after World War II, but the automotive industry had to hold on until after the cessation of hostilities in order to capitalise on the increase in demand of vehicles (Duncan, 1993:70). Owing to the increase in demand and problems with the lack of supply from North America, this established new opportunities and a new era for British manufacturers investing in the South African market. The automotive industry provided little employment opportunities for the large number of Africans who was leaving the rural areas to seek employment during the post-World War II years (Duncan, 1993:73). After World War II, the South African government put more effort into the automotive sector to expand economic growth.

This led to governments' post-war policies to initiate the introduction of local content programmes in the 1960's. The purpose of introducing the local content programmes was to ensure that South African manufactured vehicles consisted of a higher quantity of domestic components being utilised, which would ultimately grow and develop into a world-class manufacturing sector (Damoense & Simon, 2004:252). The requirement that vehicle assemblers had to adhere to was that 11 basic components were to be acquired domestically. In order for the policy to be more effective, vehicle assemblers that added more domestic components to their vehicles could benefit by the bonus import permits that was being offered by the government. The drain on foreign exchange had successfully been reduced from R145.6 million in 1960 to R110.6 million in 1961 (Duncan, 1993:4). Phase 1 to Phase 6 of the local content programmes was discussed in table 2.1 but will, briefly, be discussed next.

4.2.1 Phase 1 of the local content programme (1961 – 1963)

Phase 1 of the local content programme was introduced with the objective to increase local content in mass from 15% to 40%. In order to protect the manufacturing of South African components, tariffs were implemented because of the balance of payments crisis that resulted due to the reduction of import controls. Total vehicle sales had increased from 48 416 units in 1955 to 106 793 units in 1958,

where more than 80% of the parts in South African assembled vehicles were arriving from international manufacturers. The manufacturing of motor vehicles in South Africa, therefore, was placing an exorbitant strain on the country's foreign exchange (Duncan, 1993:73). Table 4.2 reveal the impact of government intervention in the form of Phase 1 of the local content programme.

Table 4.2: Impact of Phase 1 of the local content programme (1961 – 1963).

Phase 1 of Local Content Programme (1961 – 1963)	
Indicator	**Comment**
Number of OEMs	8
Employment	15 800 persons in 1963.
New vehicle sales	96 664 units sold in 1961. A record 147 373 units sold in 1963.
GDP at constant 2005 prices	Ranged from a low of 3.8% in 1961 to a high of 7.4% in 1963. Average over the period was 5.8%.

Source: (Lamprecht, Rudansky-Kloppers & Strydom, 2011:60)

According to Lamprecht et al. (2011:61), a close correlation generally exists between new vehicle sales and the GDP, therefore, record new vehicle sales of 143 373 units were achieved when the GDP growth rate reached 7.4%, with 50 basic models being assembled in the domestic market. The South African-based OEMs had to be versatile by adapting and responding to the mass based local content requirements in order to avoid, or reduce, paying excise penalties on their domestic operations. Some of the consequences of these types of programmes were that the domestic manufacturers focused on building the heaviest vehicles in the world (AIEC, 2013:14).

4.2.2 Phase 2 of the local content programme (1964 – 1969)

Phase 2 of the local content programme was introduced to increase the nominal local content in mass from 45% in 1964 to 55% in 1969. This was equivalent to a 50% net local content as redefined when calculating the actual, or true, South African content. Table 4.3 reveal the impact of government intervention in the form of Phase 2 of the local content programme.

Table 4.3: Impact of Phase 2 of the local content programme (1964 – 1969).

Phase 2 of Local Content Programme	
Indicator	**Comment**
Number of OEMs	16
Employment	26 900 persons in 1969.
New vehicle sales	195 991 units sold in 1964. 256 296 units sold in 1969.
GDP at constant 2005 prices	Ranged from a high of 7.9% in 1964 to a low of 4.2% in 1968. Average over the period was 5.8%.

Source: (Lamprecht et al., 2011:62)

This phase involved local content protection based on minimum percentages of South African made parts. The different models made by vehicle assemblers could be deemed either as 'manufactured' or 'assembled'. Import permits were freely issued for manufactured models. Penalties, according to a sliding scale of excise duty, were implemented on assembled models, which were dependent on the quantity of local content being used in every model during a previous year (Duncan, 1993:74). Phase 2 of the local content programme contributed to higher local content and higher employment levels, but as a consequence, also to increasingly heavier vehicles (Lamprecht et al., 2011:63). Phase 2 ended in December 1969.

4.2.3 Phase 3 of the local content programme (1971 – 1976)

At the beginning of 1971, Phase 3 (1971 - 1976) of the local content programme was introduced with a minimum local content of 52%, which was set to increase to 66% on 1 January 1977. Table 4.4 reveal the impact of government intervention in the form of Phase 3 of the local content programme.

Table 4.4: Impact of Phase 3 of the local content programme (1971 – 1976).

Phase 3 of Local Content Programme	
Indicator	**Comment**
Number of OEMs	13 but reduced to 12 due to a merger.
Employment	41 000 persons in 1976.
New vehicle sales	295 682 units sold in 1971. Sales reached a record of 363 605 units in 1975. Sales declined to 300 248 units in 1976.
GDP at constant 2005 prices	Ranged from a high of 6.1% in 1974 to a low of 1.7% in both 1972 and 1975. Average over the period was 3.4%.

Source: (Lamprecht et al., 2011:63)

Phase 3 reflected a period of large capital expenditure, expansion of employment, acquisition of further expertise, and general development of the domestic industry dictated by the need for compliance with the minimum local content requirements.

4.2.4 Phase 4 of the local content programme (1977 – 1978)

Phase 4 of the local content programme comprised of a two year standstill phase. This was to assist the industry in consolidating its position after the severe narrowing of profit margins during the previous three years. Worldwide inflation and the oil crisis were accompanied by price increases in steel and other materials and, in South Africa in particular, sharp increases in wages and salaries (AIEC, 2013:15).

The sales duty on motor vehicles, introduced in 1969 at a rate of 5%, was raised to 10% in 1970 and to 12.5% in 1977 (AIEC, 2013:15). Total new vehicle sales in the domestic market declined to 256 801 units in 1977 and reached 303 695 units in 1978 (Lamprecht et al., 2011:64). Thus far, with all the developments that occurred the primary motivating reason for the increase in local content was the desire to save foreign exchange (Black, 1998:5).

4.2.5 Phase 5 of the local content programme (1980 – 1988)

Phase 5 of the local content programme was introduced and applied a minimum net local content that had to achieve 66% by weight in respect of motor cars, and 50% by weight in respect of light goods vehicles and mini buses at the end of 1981. Total sales of vehicles increased from 314 067 units in 1979 to an all-time high of 453 541 units in 1981 (Duncan, 1993:76). Table 4.5 reveal the impact of government intervention in the form of Phase 5 of the local content programme.

Table 4.5: Impact of Phase 5 of the local content programme (1980 – 1988).

Phase 5 of Local Content Programme	
Indicator	**Comment**
Number of OEMs	7
Employment	Peak of 31 549. Declined to 21 021 persons in 1988.
New vehicle sales	404 766 units sold in 1980. 453 541 units sold in 1981 which represented an all-time record at the time. 309 150 units sold in 1987. 359 731 units sold in 1988.
GDP at constant 2005 prices	Ranged from a high of 6.6% in 1980 to a low of -1.8% in 1983. Average over the period was 2.2%.

Source: (Lamprecht et al., 2011:65)

After having achieved record new vehicle sales in 1981, sales declined in the succeeding years to levels below those of 1969 owing to recessionary conditions, escalating domestic inflation and the significant devaluation of the rand (Lamprecht et al., 2011:65).

4.2.6 Phase 6 of the local content programme (1989 – 1995)

Phase 6 of the local content programme marked a significant change in direction. The salient features that the automotive industry was recognised for, such as: being inwardly focused, overly fragmented, output that was somewhat stagnant coupled with higher costs per unit were going to be addressed and resolved (Black, 1998:6, Lamprecht, 2009:215). It now featured a significant change in the calculation of local content, which were previously based on weight. It was now based on the value of local content. The scale on which local content was to be measured was based on two methods, namely: the value of components that was manufactured domestically, which were included in domestically assembled vehicles; and on a net foreign exchange usage basis. This meant that exports were allowed and accounted for being part of the local content value. Excise duties were increased from 27.5% in 1989 to 35% in 1991 (Duncan, 1993:76). This meant that, in order to qualify for excise duty rebates, manufacturers had to first achieve a 75% local content by value (Duncan, 1993:76). The increases that occurred were mainly introduced because manufacturers had displayed positive signs of increasing exports more rapidly than expected. Table 4.6 reveals the impact of government intervention in the form of Phase 6 of the local content programme.

Table 4.6: Impact of Phase 6 of the local content programme (1989 – 1994).

Phase 6 of Local Content Programme	
Indicator	**Comment**
Number of OEMs	7
Employment	37 000 persons employed in 1989. 38 600 persons employed in 1995.
New vehicle sales	221 273 units sold in 1989. 380 958 units sold in 1995.
GDP at constant 2005 prices	Ranged from a high of 3.2% in 1994 to a low of -2.1% in 1992. Average over the period was -0.9%.

Source: (Lamprecht et al., 2011:67)

The most beneficial element of the Phase 6 programme appeared to be the incentive it provided to the development of an automotive export orientation. Exports under Phase 6 received an effective subsidy in the form of a rebate of the excise duty of 50 cents in the rand. One of the positive outcomes that occurred under Phase 6 was that manufacturers had shifted focus from heavy local components and high value imports, to moving closer to increasing exports with a higher value in local sourcing. Another positive outcome was that the South African automotive industry was gaining global recognition for motor vehicle manufacturing and this was an added benefit to the desire of saving foreign exchange. In order to capitalise on the needs of the global market, the domestic component firms and assemblers have had to restructure their manufacturing strategies and operations. This had increased the competitive pressures in both assembling and components manufacturing. Because of the environment being relatively protected, it brought about the increase in different vehicle models being manufactured (Flatters, 2002:3).

Contrary to government's belief, the increase in local content requirements did not decrease the number of assembly operations in South Africa. The number of OEM's

increased parallel with the increase in growth, and that led to the development of a low volume component industry directed at the manufacturing of heavier components because of the local content initially being assessed on a mass basis (Lamprecht, 2009:213).

Total automotive exports had increased by 28% per annum under the export facilitation scheme that was established under phase 6 (Damoense and Simon, 2004:254). However, Phase 6 did not provide the adequate reduction in the use of nominal foreign exchange by the automotive industry and, therefore, the policy was not as effective. For the period 1989 – 1994, the net automotive trade deficit had increased by 33% in nominal rand terms (Damoense and Simon, 2004:254).

During the first six phases of automotive policy, the automotive industry did not perform as anticipated, which led to another change in policy that came into effect in September 1995. The MIDP, which was compliant with the GATT regulations established under the Uruguay Round in 1994, was implemented by government as the new motor industry programme. As discussed in Chapter 2, the MIDP was a structural adjustment programme to integrate the small, uncompetitive domestic automotive industry into the global automotive manufacturing environment. See chapter 2 for a detailed description of the government's policy pertaining to the MIDP.

The global and South African automotive industry will be discussed next.

4.3 Global and South African automotive industry

The automotive industry globally is dominated by a few Original Equipment Manufacturers (OEMs), mainly concentrated in the Triad countries of North America, Western Europe and Japan. According to the AIEC (2007:5), the markets in these regions are mature and characterised by vehicle manufacturing overcapacity, cost pressures and, in some cases, poor financial performance. The intense competition by the OEMs for increased market share has resulted in challenges, as well as

opportunities, for developing countries that are able to provide the twin benefits of factor-cost savings and enormous growth potential.

Owing to different approaches and cost cutting strategies of the leading OEMs in the Triad economies, which are intended to balance the automotive supply and demand sides, major global trends have increased. These underlying global trends and structural pressures include mergers and acquisitions, global production overcapacity, outsourcing and sourcing strategies, the devising of new technology and innovations, as well as environmental requirements (AIEC, 2007:5).

These major global trends exert a significant impact on the development and future of the global automotive value chain role-players, as well as on the developed and developing automotive producing countries and regions. Developing countries, which are targeted in order to add value to the global strategies of the multinational companies, attract large-scale investments in production facilities for completely built-up vehicles and automotive components.

Governments from around the world are, therefore, actively attempting to promote their countries by attracting automotive investments via policy and support measures in recognition of the benefits that automotive investments generate in terms of economic growth, development and technology transfer.

Since the industrial revolution, the automotive industry has been one of the most global of all industries. During 2011, approximately nine million people were directly employed in the manufacturing of vehicles and their components, which is more than 5% of the world's total manufacturing employment (DTI, 2013a:10). In addition to these direct employees, it is estimated that each direct automotive job supports, at least, another five indirect jobs in related manufacturing and service provision, resulting in more than 50 million people earning their living from the manufacturing of cars, trucks, buses and coaches (DTI, 2013a:10).

According to the International Organisation of Motor Vehicle Manufacturers (OICA, 2015:1), the global automotive sector manufactured 89.5 million cars, vans, trucks and buses in 2014, which set a record and was up by more than 2.6% compared to 2013. According to the OICA (2015:1), the global automotive sector set yet another record in 2014 as it manufactured 89.5 million vehicles compared to 87.5 million in 2013. Just four countries, namely: China, the United States (USA), Japan and Germany manufactured 55.6% of the total number of vehicles manufactured worldwide. China manufactured a total of 23.7 million vehicles in 2014, which is more than the USA (11.6 million) and Japan (9.7 million) combined (OICA, 2015:1).

World sales figures (all vehicle types) are above 88 million vehicles in 2014 (OICA, 2015:2). Manufactured figures do not match sales because of many non-recorded registrations in a lot of countries, and vehicles in short-term inventories soon to be registered. Almost half of global sales, 50%, now occur in Asia, Oceania and the Middle East with China still being the strongest player in this region with a 7% increase in both production and sales in 2014 (OICA, 2015:1).

Global vehicle manufacturing is concentrated in the EU, China, the USA and Japan, which are also the four largest motor vehicle markets. The global automotive industry is currently led by the main manufacturers (OEMs), namely: Toyota, General Motors, Volkswagen, Ford, Honda, PSA, Nissan, BMW and Daimler that function in an international competitive environment (Ambe, 2012:4).

The global automotive industry can be differentiated in three broad segments (Barnes & Morris, 2008:34):

- Original Equipment Manufacturers (OEMs) or vehicle assemblers – both passenger and commercial vehicle sales.
- Original Equipment Supplier (OES) – automotive parts and accessory sales through the vehicle assemblers' official dealerships.
- Independent aftermarket – automotive parts and accessory sales through independent retailers and repair shops.

From an international perspective, the South African automotive industry is small with a total number of 566 083 vehicles manufactured in 2014 (NAAMSA, 2015). Table 4.7 reveal the total number of vehicles manufactured in South Africa as well as the percentage of global manufacturing for the period 2000 – 2014.

Table 4.7: Vehicle manufacturing in South Africa for the period 2000 – 2014.

Vehicle manufacturing in South Africa								
Year	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Total (Units)	356 800	406 779	405 071	421 965	455 702	525 227	587 719	534 490
% Share of global manufacturing	0.61	0.72	0.69	0.70	0.71	0.79	0.85	0.73
Year	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	
Total (Units)	562 965	373 923	472 049	532 553	546 074	545 913	566 083	
% Share of global manufacturing	0.80	0.61	0.61	0.67	0.65	0.63	0.63	

Source: (NAAMSA, 2015)

As revealed in table 4.7, vehicle manufacturing in South Africa has not fully recovered to levels achieved in 2006. According to the Fund for Research into Industrial Development, Growth and Equity (FRIDGE, 2014) a probable reason is that while export volumes were growing strongly in the period after 2010, a greater percentage of the domestic market was being supplied by imports, as well as recovering from the global financial crisis of 2008 and 2009.

South Africa's percentage share of global vehicle manufacturing has not recovered to pre-2008 levels. This can be explained by the fact that between 2008 and 2009 South African vehicle manufacturing declined by 33.6% because of the impact that

the global financial crisis had on the industry, while global manufacturing on the other hand declined by only 12.4% in the same period.

In the years thereafter, 2009 to 2013, while South African vehicle manufacturing increased by 46%, global vehicle manufacturing increased by 36.2%, but from a relative higher base. Therefore, from a global perspective, vehicle manufacturing in South Africa has yet to regain its previous stature and this is aimed for with government's latest rendition of automotive policy, namely the APDP.

The way forward for the South African automotive industry has been indicated clearly under the APDP. There is certainty up to 2020, which will assist long-term strategic planning. Industry production is expected to increase significantly from 2013 onwards, particularly light motor vehicles, as the APDP progresses with its vision to double vehicle manufacturing in the country by 2020 to 1.2 million vehicles per annum with particular focus on development of the automotive component sector.

From the perspective of the new vehicle market in South Africa, the following table reveal the significant changes that have taken place in the size of the new vehicle market in South Africa.

Table 4.8: New vehicle sales in South Africa for the period 2005 – 2014.

New vehicle sales in South Africa					
Year	**2005**	**2006**	**2007**	**2008**	**2009**
Total (Units)	565 002	702 610	675 342	532 321	393 406
% Share of global manufacturing	0.94	1.04	0.94	0.78	0.60
Year	**2010**	**2011**	**2012**	**2013**	**2014**
Total (Units)	492 798	578 886	630 619	650 741	644 504
% Share of global manufacturing	0.66	0.73	0.76	0.76	0.73

Source: (NAAMSA, 2014)

The sale of passenger cars and light commercial vehicles dominates sales in South Africa, contributing to 95.2% of all new vehicle sales in 2013. The sale of new passenger cars alone, however, regularly comprises of 65 to 70% new vehicles sold in South Africa. Therefore, from a global perspective, new vehicle sales in South Africa are intended to achieve 2006 levels, or more, under the APDP.

In 2014, new vehicle sales in South Africa declined for the first time in the last five years. A slowdown in the domestic economy, two interest rate increases, as well as above-inflation new vehicle price increases contributed to the marginal year-on-year decline of 0.7% in aggregate new vehicle sales (AIEC, 2015:19).

The key characteristics of the South African automotive industry will be discussed next.

4.4 Key characteristics of the South African automotive industry

The automotive manufacturing sector is recognised worldwide for its cross-cutting links and documented contributions to a wide range of economic development imperatives (DTI, 2013a:4). The manufacturing of automotive vehicles and components includes a wide range of industrial activities that it has become the leading manufacturing industry in South Africa, contributing 7.2% of the country's GDP, and was ranked 24th in respect of global vehicle manufacturing with a market share of 0.63% in 2014 (AIEC, 2015:9). Significant investment programmes driven by export plans, have been implemented by all the South African OEMs since the commencement of the MIDP, and capital expenditure of these OEMs from 1995 to 2012 amounted to R48.6 billion (AIEC, 2013:96). During 2014, capital expenditure by the seven OEMs amounted to a record R6.92 billion, and investments by the component sector amounted to R2.7 billion (AIEC, 2015:5).

As the continent's most sophisticated economy, South Africa is regarded as one of the most diversified exporting countries in the world and its increasing trade liberalisation is contributing significantly to the country's growth and future prosperity. The future of the domestic automotive industry is of vital importance. It plays a critical role in the development of South Africa's manufacturing sector because the automotive industry accounted for approximately 30.2% of manufacturing output, 11.7% of South Africa's total exports and 12.1% of the country's total imports in 2014 (AIEC, 2015:9). It also establishes inter-industry links, and is closely tied with other manufacturing sub-sectors, such as: aluminium, leather, textiles, stainless steel, and plastics, amongst others.

The automotive industry is one of the main contributors of employment in South Africa. According to NAAMSA (2014), the aggregate employment in vehicle manufacturing by 2014 totalled over 31 000 employees, the highest industry employment level in the past five years, this is compared to 28 128 jobs in 2010, 28 292 jobs in 2011, 29 180 jobs in 2012 and 30 120 in 2013. Employment within the component manufacturing industry totalled 82 790 employees in 2014 (AIEC, 2015:7), whilst in the trade areas of vehicle sales, and vehicle maintenance and servicing fields, the total employment amounted to over 200 000 persons in 2013 (AIEC, 2014:87). The number of employees increased thanks to manufacturers, in the domestic market, increasing manufacturing operations.

The broader South African automotive industry includes the manufacture, distribution, servicing and maintenance of motor vehicles and components. In terms of trades supporting this industry, there are: approximately 4 551 garages and fuel stations (with the majority having service workshops) plus an additional 1 898 specialist repairers; 1 374 new car dealerships holding specific franchises; an estimated 1 768 used vehicle outlets; 1 506 specialist tyre dealers and retreaders; 440 engine re-conditioners; 171 vehicle body builders; 2907 parts dealers; and approximately 216 farm vehicle and equipment suppliers (AIEC, 2015:7).

South Africa is the African continent's industrial and financial super-power. The strength of the South African economy is evident in its diversity of sectors and industries. South Africa, as the economic powerhouse of the continent, is well positioned as a base from which investors can access the aggressively growing economies of the rest of Africa. South Africa is a key investment location, both for the market opportunities that lie within its borders and for the possibility to use the country as a gateway to the rest of the continent.

South Africa represented the biggest domestic market for vehicles in Africa and accounted for 68% of the continents' vehicle manufacturing in 2014 (AIEC, 2015:38). After 1995, Africa remained South Africa's main export region for commercial vehicles, and between 1995 and 1997 it was also the main destination for exports of South African manufactured passenger cars and light commercial vehicles; a period during which the industry had to adjust structurally under the MIDP. In 2014, Africa remained South Africa's main export region for commercial vehicles (AIEC, 2015:50).

Developing countries, such as South Africa, increasingly integrating into the global automotive value chain of global role-players, not only have to cope and incorporate the effects of the major global trends on their operations, but also have to compete for sourcing and outsourcing opportunities with each other. As the environment is rapidly changing, developing countries, such as South Africa are seeking to create a role as a manufacturer of automotive vehicles and components for themselves.

In 2014, one major activity to achieve this was the implementation of the Automotive Supply Chain Competitiveness Initiative (ASCCI) in the domestic automotive industry. The objective of the ASCCI is to increase supplier manufacturing value added in support of manufacturing 1.2 million vehicles per annum by the year 2020. ASCCI initiatives are important in the context of enabling competitiveness, growth, employment creation and transformation in the South African automotive industry.

The success of the domestic automotive industry is dependent on an efficient business platform, which is essential for the industry to become progressively and internationally more competitive, grow exports, stimulate economic growth and create more jobs. In this regard, the APDP provides a stable platform for economic policy within the automotive industry for investments from automotive component suppliers and vehicle manufacturers.

The structure of the domestic automotive industry will be discussed next.

4.5 Structure of the domestic automotive industry

The South African automotive industry boasts a number of Multinational OEMs and component manufacturers. Major international assemblers and manufacturers have established operations in South Africa, including OEMs from traditional powerhouses, namely the USA, Japan and Europe. The automotive manufacturing industry in South Africa consists of seven light vehicle manufacturers and 11 manufacturers of medium and heavy commercial vehicles (DTI, 2013a:5). In terms of market share in South Africa, Toyota (SA) is the market leader of both cars and light commercial vehicles, whilst Volkswagen is the market leader in the passenger car segment. Toyota (SA) has maintained its overall market leadership position in South Africa for 35 consecutive years since 1980 (AIEC, 2015:19). In 2014, Toyota (SA) had an overall market share of 19.8% followed by Volkswagen Group of South Africa with 16.7%, Ford Motor Company of South Africa with 11.6%, Associated Motor Holdings with 10.8%, GM (SA) with 9.6% and Nissan (SA) with 7.2% (AIEC, 2015:19).

Most of the global motor vehicle branded manufacturers is represented in South Africa. These include Toyota, BMW, Volkswagen, Mercedes-Benz, Ford Motors, General Motors and Nissan (AIEC, 2015:19). South Africa's vehicle manufacturing industry is concentrated in three of the country's nine provinces, namely Gauteng, the Eastern Cape and KwaZulu-Natal, and in close proximity to its suppliers.

Components manufacturers are also clustered around the OEMs in close proximity to their suppliers. These three provinces will be discussed next.

4.5.1 Gauteng

Gauteng is the smallest of the country's nine provinces, but it is South Africa's economic engine and the country's financial and industrial economic centre (AIEC, 2013:23, AIEC, 2015:11). It accounts for approximately one-third of the National GDP; generates the highest per capita income; and accounts for 40% of South Africa's manufacturing output, construction activity and financial services (AIEC, 2015:11). Gauteng houses the majority of automotive suppliers. The Gauteng Growth and Development Agency, via its two automotive specific subsidiaries, the Automotive Industry Development Centre (AIDC) and the Automotive Supplier Park (ASP), provides support to the automotive industry, and is charged with the promotion of trade and investment and project implementation to bolster all areas of economic activity. The following table provides the key features of the Gauteng province relating to the automotive industry.

Table 4.9: Key features of Gauteng in 2014.

Automotive clusters	Gauteng
Capital	Johannesburg
Population (% of SA total of 54 million)	12.91 million (23.9%)
GDP contribution as % of SA total GDP of R3 796 billion	33,50%
OEMs (manufacturing plants)	BMW SA, Nissan SA/Renault SA, Ford Motor Company of Southern Africa
Medium, heavy, extra heavy commercial vehicle and bus companies	Associated Motor Holdings (AMH), Babcock, Busmark 2000, Fiat Group, Ford, Freightliner, Fuso, Iveco SA, JMC SA, MAN Truck & Bus (SA), Marcopolo, NC 2 Trucks Southern Africa, Peugeot Citroen SA, Powerstar SA, Renault Trucks, Scania SA, Tata Motors, UD Trucks, VDL Bus & Coach and Volvo Trucks and Buses
Number of automotive component companies	200
Motor vehicle parc as % of SA total vehicle parc of 11.37 million vehicles	38,76%
Passenger car sales as % of total 2014 passenger car sales of 439 264 units	35,40%
LCV sales as % of total 2014 LCV sales of 173 689 units	31,20%
MCV/HCV sales as % of total 2014 MCV/HCV sales of 31 551 units	34,30%
Light vehicle manufacturing by OEMs in the province as % of total 2014 light vehicle manufacturing of 533 120 units	35.7%
Light vehicle exports by OEMs in the province as % of total 2014 exports of 276 873 units	43,20%

Source: (AIEC, 2015:12)

4.5.2 Eastern Cape

The Eastern Cape has a sound manufacturing base, primarily in the automotive sector. Finance, government services and manufacturing are the leading sectors in the Eastern Cape economy. The province is well served logistically, with airports situated in Port Elizabeth, East London, Mthatha and Bisho, and with ports in Port Elizabeth, Coega and East London. The Automotive Industry Development Centre, the Eastern Cape Development Corporation, the Nelson Mandela Bay Metropolitan Municipality and the Cacadu District Municipality are amongst the several organisations promoting the Eastern Cape as a preferred destination for trade and investment. The following table provides the key features of the Eastern Cape Province relating to the automotive industry.

Table 4.10: Key features of the Eastern Cape in 2014.

Automotive clusters	Eastern Cape
Capital	Bisho
Population (% of SA total of 54 million)	6.79 million (12.6%)
GDP contribution as % of SA total GDP of R3 796 billion	7,60%
OEMs (manufacturing plants)	Volkswagen Group SA, Mercedes-Benz SA, General Motors Southern Africa, Ford Motor Company of Southern Africa engine plant
Medium, heavy, extra heavy commercial vehicle and bus companies	FAW Trucks, General Motors/Isuzu, Mercedes-Benz SA and Volkswagen Group SA
Number of automotive component companies	100
Motor vehicle parc as % of SA total vehicle parc of 11.37 million vehicles	6.64%
Passenger car sales as % of total 2014 passenger car sales of 439 364 units	3.6%
LCV sales as % of total 2014 LCV sales of 173 689 units	4.6%
MCV/HCV sales as % of total 2014 MCV/HCV sales of 31 551 units	4.3%
Light vehicle manufacturing by OEMs in the province as % of total 2014 light vehicle manufacturing of 533 120 units	37.5%
Light vehicle exports by OEMs in the province as % of total 2014 exports of 276 873 units	32.3%

Source: (AIEC, 2015:14)

4.5.3 KwaZulu-Natal

KwaZulu-Natal represents the second largest economy in the country after Gauteng. It has the two busiest ports in the whole of Africa which is supported by world-class road and rail infrastructure. A strategic and competitive advantage that the province enjoys is that it can act as a global gateway for trade into Africa and into the world. Durban is South Africa's second largest city and busiest port. Manufacturing that is dominated by pulp and paper, chemicals, and food and beverages, is the largest sector in the province, followed by finance, trade, tourism and agriculture (AIEC, 2014:12). The following table provides the key features of the KwaZulu-Natal province relating to the automotive industry.

Table 4.11: Key features of KwaZulu-Natal in 2014.

Automotive clusters	Kwa-Zulu Natal
Capital	Mzunduzi (Pietermaritzburg)
Population (% of SA total of 54 million)	10.69 million (19.8%)
GDP contribution as % of SA total GDP of R3 796 billion	16.1%
OEMs (manufacturing plants)	Toyota SA Motors
Medium, heavy, extra heavy commercial vehicle and bus companies	Bell Equipment Co SA, Hino, MAN Truck & Bus (SA) and Toyota SA Motors
Number of automotive component companies	80
Motor vehicle parc as % of SA total vehicle parc of 11.37 million vehicles	13.47%
Passenger car sales as % of total 2014 passenger car sales of 439 264 units	12.44%
LCV sales as % of total 2014 LCV sales of 173 689 units	11.9%
MCV/HCV sales as % of total 2014 MCV/HCV sales of 31 551 units	16,6%
Light vehicle manufacturing by OEMs in the province as % of total 2014 light vehicle manufacturing of 533 120 units	26.8%
Light vehicle exports by OEMs in the province as % of total 2014 exports of 276 873 units	23,4%

Source: (AIEC, 2015:13)

The South African automotive industry is regarded as a strategic South African asset (AIEC, 2014:13). This is based on its documented contribution to export earnings,

employment and GDP growth. In acknowledgement of the importance of the automotive industry to the country's economy, the South African government remains committed to fast-track the growth and development of the domestic automotive industry, which it regards as strategically significant.

The South African automotive industry also possesses unique qualities and a natural ability to add value to global strategies of parent companies and multinationals. In this regard, South Africa is heralded as one of the world's wealthiest countries in mineral reserves and production (AIEC, 2014:9). It has an abundance of raw materials and is the world's leading producer of platinum, palladium, rhodium, chrome, manganese, vanadium, vermiculite, ferro-chromium and alumino-silicates (AIEC, 2014:9). With regards to global reserves and production of minerals, South Africa holds 90% of platinum group metals, 80% of manganese, 73% of chrome, 45% of vanadium and 41% of gold reserves (DTI, 2013a:6). South Africa also produces more than 70% of the world's chromium, which is one of the primary ingredients utilised in the production of stainless steel that is used to house the catalyst and to manufacture modern auto exhausts (AIEC, 2014:9).

South Africa is acknowledged worldwide for conducting low-cost vehicle testing and providing development opportunities with its unique range of vehicle operating conditions, and some sophisticated research and development resources. At any time during the year, accelerated durability testing can be conducted with easy access to laboratories and testing services. The South African automotive industry can manufacture a wide range of quality products by using a single manufacturing facility and still be price competitive, satisfying the domestic and export markets. As such, this flexibility gives South Africa a distinct competitive advantage regarding low volumes. Hence, South African manufacturers can set up short manufacturing runs more competitively than many other countries that have to set up long, high manufacturing runs.

The key role-players in the domestic automotive industry will be discussed next.

4.6 Key role-players in the domestic automotive industry

The South African automotive industry comprises of seven light vehicle manufacturers (passenger cars and light commercial vehicles). Over the past two decades, three OEMs have extended their operations to include the assembly of medium and heavy commercial vehicles. No new OEMs have entered the light vehicle manufacturing sector since the implementation of the MIDP in 1995, or up until 2008. In August 2007, Fiat Auto SA (Pty) Ltd discontinued vehicle manufacturing in South Africa owing to the termination of the contractual agreement with Nissan SA (Pty) Ltd, and the final vehicles came off the manufacturing line during the first half of 2008. After 2008, Renault has replaced Fiat to manufacture the Sandero at the Nissan plant, but Renault manufacturing had seized in 2014.

According to the AIEC (2015:19), 55 brands and 4406 passenger car model derivatives, and 31 LCV brands and 615 model derivatives were available for consumers to choose from in 2014, the biggest ratio compared to its market size in the world. A diverse range of original equipment components, parts and accessories are manufactured in the country by approximately 500 Automotive Component Manufacturers (ACMs), including 120 first-tier suppliers (AIEC, 2014:22). The domestic OEMs in South Africa are revealed in the following table.

Table 4.12: Domestic OEMs in South Africa.

Passenger/LCV Vehicle OEMs and local models	MHCV Companies
BMW	Bell Equipment
Ford	DAF Trucks
General Motors	Fiat
Mercedes Benz	Isuzu Truck
Nissan	Iveco
Toyota	MAN
Volkswagen	Marcopolo
	Mercedes Benz
	Navistar International Trucks
	Nissan
	Nissan Diesel
	Peugeot Citroen
	Renault Trucks
	Scania
	Super Group
	Tata
	Toyota
	Volkswagen
	Volvo Trucks
Light Commercial Vehicles	**Bus Companies**
Ford	MAN
General Motors	Mercedes-Benz
Mercedes-Benz	Scania
Nissan	VDL Bus and Coach
Toyota	

Source: (DTI, 2013a:5)

The Motor Industry Development Council (MIDC) represents all the key role-players in the South African automotive industry. The establishment of the MIDC occurred in 1996 as a joint industry-government-labour body and has a strong influence on strategies and policies of the automotive sector. An important function of the MIDC is to ensure that there are proper communication and cooperation channels available to all relevant stakeholders to communicate and resolve automotive issues. Government, labour and business are the primary stakeholders in the automotive industry. Table 4.13 reveal the role-players in the South African automotive industry.

Table 4.13: Key role-players in the South African automotive industry.

Stakeholders	Body
Government	The Enterprise and Industry Development Division (EIDD)
	The International Trade Administration Commission (ITAC) (formerly the Board on Tariffs and Trade).
	The South African Revenue Services (SARS - Customs and Excise Department)
	The South African Bureau of Standards (SABS)
Labour	The National Union of Metalworkers of South Africa (NUMSA)
Business	The National Association of Automobile Manufacturers of South Africa (NAAMSA)
	The National Association of Automotive Component and Allied Manufacturers (NAACAM)
	The Retail Motor Industry Organisation (RMI)
	The South African Tyre Manufacturers Conference (SATMC)
	The Catalytic Convertor Interest Group (CCIG)

Source: (Lamprecht, 2009:240; Ambe, 2012:73)

The OEMs have a strong influence on the automotive industries in the world and the South African automotive industry is also subjected to that. OEMs' strategies in both domestic and export markets strongly influence an industry's structure and development path. In South Africa, the rise in export orientation of OEMs has, therefore, fundamentally altered the structure of automotive component industries as well as their own operations (AIEC, 2013:27, Lamprecht, 2006:79). Important decisions regarding South Africa's automotive business are determined in Germany, the USA and Japan. South Africa's competitive advantages, its participation in the WTO and its special relationships with many trading regions, especially the EU, have facilitated the industry's integration into the global sourcing strategies of the multinational automotive corporations.

The performance of the South African automotive industry under the MIDP will be discussed next.

4.7 Performance of the South African automotive industry under the MIDP

Since the introduction of the MIDP in 1995, the South African automotive industry has performed remarkably well and, to a large extent, achieved its stated objectives (AIEC, 2014:13; DTI 2013b:80). The MIDP was designed to help an inefficient, high cost and uncompetitive automotive industry adjust to South Africa's trade liberalisation. It has done so, initially, with very generous subsidies intended to encourage firms to orient themselves to global markets, and in particular to enjoy the economies of scale and specialisation that could occur only by taking advantage of opportunities for international trade.

Table 4.14 reveal the manufacturing of passenger car and light commercial vehicles for the period 1995 – 2014. Table 4.15 reveal the manufacturing of medium and heavy commercial vehicles and buses for the period 1995 – 2014. This will reflect that the automotive industry has enjoyed sustained growth in both domestic sales and exports since the introduction of the MIDP. However, the tables also reflect the impact of global developments on the domestic automotive industry's performance over this period, such as the Asian crisis and global financial crisis being integrated in the global automotive industry.

Table 4.14: Manufacturing of passenger car and light commercial vehicles for the period 1995 – 2014.

Passenger Vehicles Market					Light Commercial Vehicles Market			
Year	Domestic	Exports	Total	Exports as a % of total	Domestic	Exports	Total	Exports as a % of total
1995	233 512	8 976	242 488	3,7	127 363	6 356	133 719	4,8
1996	231 616	3 743	235 359	1,6	128 516	7 125	135 641	5,3
1997	215 784	10 458	226 242	4,6	113 204	8 000	121 204	6,6
1998	174 870	18 342	193 212	9,5	98 056	6 806	104 862	6,5
1999	159 944	52 347	212 291	24,7	95 326	6 581	101 907	6,5
2000	172 373	58 204	230 577	25,2	104 121	9 148	113 269	8,1
2001	172 052	97 599	269 651	36,2	113 111	10 229	123 340	8,3
2002	163 474	113 025	276 499	40,9	101 956	11 699	113 655	10,3
2003	176 340	114 909	291 249	39,5	102 007	11 283	113 290	10
2004	200 264	100 699	300 963	33,5	123 467	9 360	132 827	7
2005	210 976	113 899	324 875	35,1	146 933	25 589	172 522	14,8
2006	215 311	119 171	334 482	35,6	159 469	60 149	219 618	27,4
2007	169 558	106 460	276 018	38,6	156 626	64 127	220 753	29
2008	125 454	195 670	321 124	60,9	118 641	87 314	205 955	42,4
2009	94 379	128 602	222 981	57,7	85 663	45 514	131 177	34,7
2010	113 740	181 654	295 394	61,5	96 823	56 950	153 773	37
2011	124 736	187 529	312 265	60,1	108 704	84 125	192 829	43,6
2012	120 417	151 659	272 076	55,7	121 638	123 443	245 081	50,4
2013	113 247	151 893	265 140	57,3	127 051	121 345	248 396	48,9
2014	122 571	154 920	277 491	55,8	137 044	118 585	255 629	46,4

Source: (AIEC, 2013:29; AIEC, 2015:21)

Table 4.14 revealed that the best year for manufacturing in the passenger vehicles market was 2006, and the light commercial vehicles market was 2014. The following

table reveal the assembly of medium and heavy commercial vehicles and buses for the period 1995 – 2014.

Table 4.15: Assembly of medium and heavy commercial vehicles and buses for the period 1995 – 2014.

Medium and Heavy Commercial Vehicles Market				
Year	**Domestic**	**Exports**	**Total**	**Exports as a % of total**
1995	12 753	432	13 185	3,3
1996	14 617	685	15 302	4,5
1997	13 759	1 111	14 870	7,5
1998	12 811	748	13 559	5,5
1999	11 736	788	12 524	6,3
2000	12 275	679	12 954	5,2
2001	13 323	465	13 788	3,4
2002	14 335	582	14 917	3,9
2003	16 957	469	17 426	2,7
2004	21 464	448	21 912	2
2005	27 406	424	27 830	1,5
2006	33 080	539	33 619	1,6
2007	37 069	650	37 719	1,7
2008	34 659	1 227	35 886	3,4
2009	18 934	831	19 765	4,2
2010	22 021	861	22 882	3,8
2011	26 656	803	27 459	2,9
2012	27 841	1 076	28 917	3,7
2013	30 924	1 206	32 130	3,8
2014	31 551	1 412	32 963	4,3

Source: (AIEC, 2013:31; AIEC, 2015:23)

Table 4.15 revealed that the best year for the assembly of medium and heavy commercial vehicles and buses, under the MIDP, was 2007. The automotive industry continued to increase its share of the South African trade balance reiterating its status as the leading manufacturing sector in the country. The dynamics of the automotive market have changed since the implementation of the MIDP in 1995, with increased imports affecting the country's trade balance on the one hand, and increases in exports resulting in automotive exports comprising 12.1% of South Africa's total exports in 2012 on the other hand (AIEC, 2013:32). Automotive exports have been growing at a compounded annual rate of 19.5% since 1995 to 2014 as revealed in the following table.

Table 4.16: South African automotive sector's contribution to total South African exports and imports: 1995 – 2014.

Year	Total SA Exports (R billion)	Total Automotive exports (R billion)	Automotive exports as a % of total SA Exports	Total SA Imports (R billion)	Total Automotive imports (R billion)	Automotive imports as a % of total SA imports
1995	102,1	4,2	4,10%	101,1	16,4	16,20%
1996	115,4	5,1	4,40%	116,9	19,2	16,40%
1997	131,5	6,6	5,00%	129,8	17,2	13,30%
1998	145	10,1	6,90%	144	19,9	13,80%
1999	165,6	14,8	8,90%	147,4	22,8	15,50%
2000	210,4	20	9,50%	188,1	29,7	15,80%
2001	215,3	30	13,90%	215,4	38	17,60%
2002	314,1	40,1	12,80%	274,5	50,2	18,30%
2003	273,1	40,7	14,90%	257	49,8	19,40%
2004	292,1	39,2	13,40%	304,7	58	19,00%
2005	327,1	45,3	13,80%	349,2	72,5	20,80%
2006	394	54,7	13,90%	462,6	88,5	19,10%
2007	491,3	67,6	13,80%	561,2	102,2	18,20%
2008	656	94,2	14,40%	727,6	108,9	15,00%
2009	513,9	61	11,90%	541,2	79,9	14,80%
2010	590	69,5	11,80%	585,2	100,2	17,10%
2011	712,1	82,2	11,50%	729	120,8	16,60%
2012	717,9	86,9	12,10%	835,6	136,1	16,30%
2013*	927,3	102,7	11,10%	998,2	126,7	12,70%
2014*	988,2	115,7	11,70%	1083,5	131,5	12,10%

Source: (AIEC, 2013:32; AIEC, 2015:83, 84)

Table 4.16 revealed that total automotive exports had increased from R4.2 billion in 1995 to R86.9 billion in 2012. The South African automotive industry's trade deficit had widened to R49.2 billion in 2012 compared to R38.6 billion in 2011 and could be attributed to the decrease in exports to the EU, the automotive industry's main trading partner, owing to the weakness of the EU automotive markets. In 2013, under the APDP, the South African automotive industry's trade deficit reduced to R24 billion and in 2014 it reduced further to R15.8 billion. On the import side, total automotive imports increased from R16.4 billion in 1995 to R136.1 billion in 2012. The strength of imports of aftermarket parts and the weakness of the Rand currency affected the trade balance in 2012.

The overall picture, in respect of the domestic automotive industry's trade balance under the MIDP, reflects that exports have increased very rapidly, but imports have also expanded rapidly. According to Bronkhorst (2010:51), the increase in imports can be attributed to the following:

- The phase-down of the import duties under the MIDP: A decline in import tariffs causes the importation of vehicles and components to be less expensive, which may encourage an increase in the number of imports.
- The IEC scheme of the MIDP: Some manufacturers had employed export strategies for generating IRCCs, which could be used to import duty free. In other words, these manufacturers are only exporting to import duty free.
- Long-term strengthening of the rand: When domestic currency strengthens over the longer term, it becomes less expensive to import components and motor vehicles, which may result in an increase in the number of imports.
- An increase in domestic demand: Owing to capacity constraints, the domestic automotive industry was not able to meet the domestic automotive demand, which necessitated the importation of vehicles and components.

The following table reveal the trade balance for the automotive industry and its net forex usage for the period 1995 to 2014.

Table 4.17: Trade balance for the automotive industry: 1995 – 2014.

Trade balance for the automotive industry: 1995 - 2014			
Year	**Imports (R Billion)**	**Exports (R Billion)**	**Net Forex Usage (R Billion)**
1995	16,4	4,2	-12,2
1996	19,2	5,1	-14,1
1997	17,2	6,6	-10,6
1998	19,9	10,0	-9,9
1999	22,8	14,8	-8,0
2000	29,7	20,0	-9,7
2001	38,0	30,0	-8,0
2002	50,2	40,1	-10,1
2003	49,8	40,7	-9,1
2004	58,0	39,2	-18,8
2005	72,5	45,3	-27,2
2006	88,5	54,7	-33,8
2007	102,5	67,6	-34,9
2008	108,9	94,2	-14,7
2009	79,9	61,0	-18,9
2010	100,2	69,5	-30,7
2011	120,8	82,2	-38,6
2012	136,1	86,9	- 49,2
2013*	126,7	102,7	-24,0
2014*	131,5	115,7	-15,8

Source: (AIEC, 2013:33; AIEC, 2015:83, 84)

Table 4.17 revealed that the best years of net forex usage in the South African automotive industry was 1999 and 2001 when it was –R8.0 billion, and the worst year was 2012 when it was –R49.2 billion. Despite the significant increase in CBUs and automotive components exports in recent years, the South African automotive industry has remained a net user of foreign exchange. This was as a result of the importation of products not manufactured in the relatively small domestic market. A key strategy of the OEMs operating in South Africa is to expand market share. The OEMs seek to achieve this through a combination of domestic manufacturing and vehicle imports to complement model mixes and consumer choices in the domestic market.

Since the introduction of the MIDP until 2007, automotive component exports remained the key driver behind the automotive industry's trade balance. Table 4.18 reveal the total exports of the ten most consistent automotive components that were exported from South Africa during the MIDP's lifespan and the first two years of the APDP. In this regard, the researcher chose only ten automotive components that were consistent throughout the MIDP. Although a specific automotive component, listed in table 4.18, could have performed poorer in a specific year and not made it to the top ten automotive components being exported in that specific year, over the lifespan of the MIDP, it was more consistent than other automotive components that only may have performed well and seldom made it into the top ten during the MIDP's lifespan.

Table 4.18: Ten most consistent automotive components exported (1995-2014).

Ten most consistent automotive components exported										
Year	Components (Value in R Millions)									
	Catalytic con-vertors	Stitched leather seat parts	Tyres	Engine parts	Silencers / exhaust pipes	Road wheels and parts	Engines	Auto-motive tooling	Radiators	Trans-mission shafts / cranks
1995	389	1 019	213	102	76	157	9	153	66	55
1996	485	1 227	288	124	168	225	86	281	98	64
1997	698	1 364	330	203	241	321	192	322	93	42
1998	1 485	1 729	463	328	488	431	233	236	93	34
1999	2 592	1 840	589	289	593	471	53	253	88	41
2000	4 683	1 915	682	409	377	551	76	362	72	127
2001	8 989	2 391	781	520	282	725	88	441	70	149
2002	9 204	3 184	1 379	771	340	955	623	363	199	236
2003	8 104	2 899	1 278	843	327	809	564	529	191	263
2004	8 289	3 113	1 285	894	407	753	701	383	162	332
2005	9 935	2 693	1 183	1 000	493	738	781	332	220	553
2006	15 810	2 549	1 220	984	880	681	1 216	272	365	351
2007	21 683	2 760	1 196	1 092	1 705	772	1 080	520	368	556
2008	24 245	3 282	1 670	1 888	1 900	691	1 050	800	1026	782
2009	12 279	2 356	1 355	1 554	1 283	388	605	464	823	503
2010	14 760	2 897	1 132	1 505	1 696	383	965	447	950	415
2011	19 638	2 189	1 675	2 058	2 139	494	819	439	1 118	569
2012	16 347	1 718	1 521	2 875	1 730	466	559	782	945	770
2013*	17 640	1 530	1 842	3 188	1 225	454	262	776	1 116	925
2014*	19 492	1 285	2 205	3 732	503	367	363	935	1 172	1 102

Sources: (AIEC, 2007:27; AIEC, 2009:21; AIEC, 2013:73-75; AIEC, 2015:63-67)

Table 4.18 revealed that stitched leather seat parts were the best automotive component being exported from 1995 to 1998 under the MIDP. In 2012, the export of stitched leather seat parts were R1 718 billion, the fourth best component being exported under the MIDP. As revealed in table 4.18 and in line with the focus of the study and the research problem, stitched leather seat parts as an automotive component has consistently performed well during the lifespan of the MIDP. During the latter part of the MIDP, exports of stitched leather seat parts have decreased considerably. This needs to be noted as a matter of high importance, taking the objectives of the APDP and other industrial policies into account. Table 4.19 reveal the ranking of the ten most consistent automotive components during the lifespan of the MIDP and the first two years of the APDP.

Table 4.19: Ranking of the ten most consistent components exported (1995 - 2014).

Ranking of the ten most consistent components exported										
Year	1 = Best performed - 10 = Lowest performed									
	Catalytic con-vertors	Stitched leather seat parts	Tyres	Engine parts	Silencers / exhaust pipes	Road wheels and parts	Engines	Auto-motive tooling	Radiators	Trans-mission shafts / cranks
1995	2	1	3	6	7	4	10	5	8	9
1996	2	1	3	7	6	5	9	4	8	10
1997	2	1	3	7	6	5	8	4	9	10
1998	2	1	4	6	3	5	8	7	9	10
1999	1	2	4	6	3	5	9	7	8	10
2000	1	2	3	5	6	4	9	7	10	8
2001	1	2	3	5	7	4	9	6	10	8
2002	1	2	3	5	8	4	6	7	10	9
2003	1	2	3	4	8	5	6	7	10	9
2004	1	2	3	4	7	5	6	8	10	9
2005	1	2	3	4	8	6	5	9	10	7
2006	1	2	3	5	6	7	4	10	8	9
2007	1	2	4	5	3	7	6	9	10	8
2008	1	2	5	4	3	10	6	8	7	9
2009	1	2	4	3	5	10	7	9	6	8
2010	1	2	5	4	3	10	6	8	7	9
2011	1	2	5	4	3	9	7	10	6	8
2012	1	4	5	2	3	10	9	7	6	8
2013	1	4	3	2	5	9	10	8	6	7
2014	1	4	3	2	8	9	10	7	5	6

Sources: (AIEC, 2007:27; AIEC, 2009:21; AIEC, 2013:73-75; AIEC, 2015:63-67)

As revealed in table 4.19, stitched leather seat parts were ranked number one from 1995 to 1998, then dropped to second place from 1999 to 2011, which was still a top performing component being exported. But, in 2012 it dropped to fourth place and remained at fourth place for the first two years of the APDP, but with a reduced export value.

The study focuses primarily on the transition of automotive policy from the MIDP to the APDP and the impact thereof on the domestic leather industry. As identified in tables 4.18 and 4.19, the situation within the South African leather industry does not seem optimistic, unless additional support is obtained from government in an effort to attract new business from new markets and OEMs worldwide. The decline in the EU market, which is the primary market, has also contributed to the decline in the South African leather industry.

4.8 Summary

The South African automotive industry has been subjected to various structural changes as a result of automotive policies. As was the case in many other developing countries, the South African automotive industry developed in its early years under high levels of protection. This industry was also highly inward focused. While a significant amount of diversified development occurred under this protective regime, the industry was characterised as being a high cost manufacturing base coupled with excessive proliferation in the high number of vehicle models and makes being assembled in low volume.

Under the MIDP, the domestic automotive industry has been fully integrated into the global automotive environment with global developments now impacting domestic automotive operations. Trade liberalisation has caused the South African automotive industry to evolve significantly. Exports of vehicles and automotive components have taken off significantly, but the MIDP has also liberalised imports.

The South African automotive industry is a key pillar of the local manufacturing sector because it contributes significantly to manufacturing, local value addition and employment creation. The industry continues to grow since the introduction of the MIDP, and is now the leading manufacturing sector in South Africa and a major contributor to the national GDP and employment.

Other industries, such as the leather industry, because of their strong link with the automotive industry, have also gained from the growth in the automotive sector under the MIDP. The APDP is designed to elevate the industry to the next level by doubling vehicle manufacturing in the country to 1.2 million vehicles per annum by the year 2020. The future of the leather sector and the impact of the APDP on the sector's sustainability and/or further development still need to be assessed. The competitiveness theory and the supply chain will be discussed in the following chapter.

Chapter 5

Competitiveness Theory and the Supply Chain: Theoretical foundations

5.1 Introduction

Chapter 4 focused in great detail on the South African automotive industry. Chapter 5 focuses on the competitiveness theories; the competitive advantage of nations; globalisation; global competitive advantage; international competitive advantage and the different strategies thereof; the strategic orientation of global firms; a discussion on the different sustainable competitive advantages; and to conclude, a theoretical discussion on the competitiveness theory. This all relates to the focus of this study and provides the theoretical underpinning needed for this dissertation. The chapter will discuss the linking up of Supply Chain Management (SCM) with competitiveness by defining SCM, as well as stating the objectives of SCM. The chapter will elaborate on important concepts and practises, such as supply chain relationships, and will then conclude with a summary of the entire chapter.

5.2 Competitiveness theory

5.2.1 Introduction

A new millennium has brought about new challenges and opportunities, and businesses will have to reconsider the way they do business in a climate of greater uncertainty; less predictability; increasing globalisation and technological innovation; changing societal values; and many other similar forces. In anticipation of these developments, management of MNCs (of which all the international motor vehicle manufacturers form a part of) and domestic firms affected by international business have to strategize and be proactive in their approach to dealing with this turbulence and intense competition. This requires knowledge of competitive intelligence relating

to internal, as well as external, environments to capitalise on the competitive global arena.

5.2.2 Absolute, Comparative and Competitive advantage

According to Cavusgil et al. (2014:172), the theory of absolute advantage was postulated by the theories of Adam Smith that states that it is beneficial for a country if it mainly produces, or manufactures, those products in which it has an absolute advantage. Kelly (2009:22) explains this further by stating that if two countries have the exact same number of resources available, but one country can produce a product more superior to the other country, it will be more beneficial if it concentrates on mainly producing those products in which it has an absolute advantage, and then trading this product for other products in which it does not have an absolute advantage. Each country will, therefore, specialise in the production of certain products, exporting them and importing others. However, in the current global business environment, these types of advantages are not feasible because trade barriers have fallen away, and have caused the total integration of the world's operations function. Toyota has manufacturing and assembly operations throughout different parts of the world, with similar approaches and strategies followed by the other major vehicle manufacturers.

Comparative advantage is based on the theory of David Ricardo, which states that even though a country might have an absolute advantage over the other, it can still be beneficial for two countries to trade, as long as one country can produce the goods and services, needed by the other country, relatively more efficient (Kelly, 2009:22; Cavusgil et al., 2014:174). In this regard, what is important is not the absolute cost of production, but rather the efficiency with which a country can manufacture the product.

According to Nieman and Bennett (2014:343), the term competitive advantage has been coined and elaborated by Michael Porter; he is, therefore, seen as the originator of this concept. Competitive advantage describes organisational assets

and competencies that are difficult to imitate by competitors and, therefore, assist firms to enter and prosper in foreign markets. These competencies can take different forms, such as: specific capabilities, knowledge, innovativeness, superior strategies, or even close relationships with suppliers.

According to Porter (1990:74), the competitive advantage of a nation is dependent on the collective competitive advantages of the nation's firms. As time progresses, this relationship is reciprocal, the competitive advantages that a nation hold will lead to the development of new firms and industries with similar competitive advantages. Porter's competitive advantage of nation's theory is discussed in more detail in the following section.

5.2.3 The competitive advantage of nations (CAN)

Porter (1990) further argued that competitive advantage at both the domestic and international level emanates from four major elements, as revealed and discussed in Figure 5.1 below.

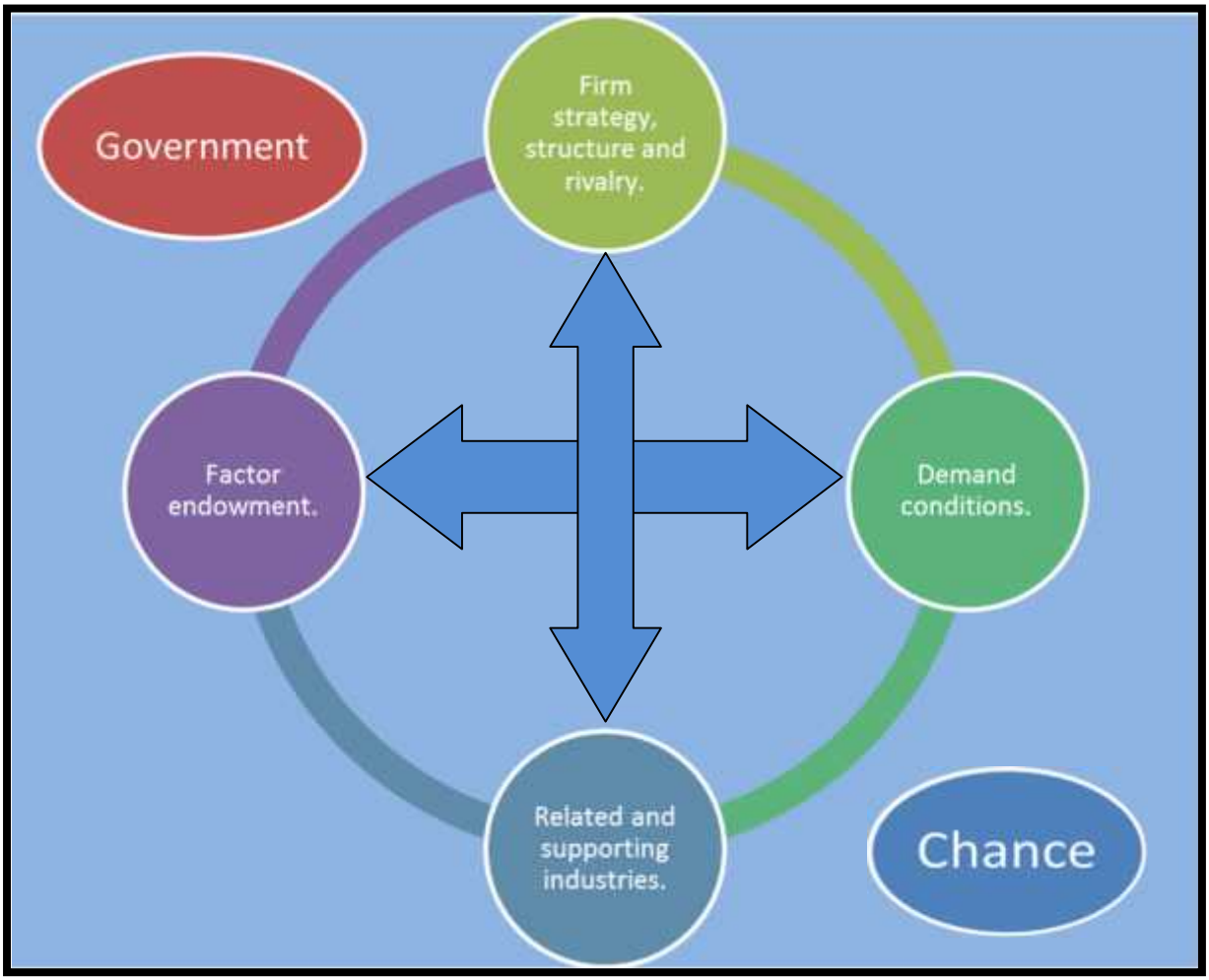

Figure 5.1: Competitive Advantage: Porter's Diamond Model

Source: (Nieman and Bennett, 2014:343)

Firm strategy, structure and rivalry refer to the nature of domestic rivalry and conditions in a nation (Daniels et al., 2011:280). This determines how firms are created, organised and managed. If there is intense competition in a nation, it assists in creating and maintaining a national competitive advantage (Cavusgil et al., 2014:182). Regarding the South African leather manufacturers, most of them are foreign owned MNCs operating in South Africa, and the parent company has other subsidiaries operating in other parts of the world. If the manufacturers in South Africa are not competitive enough, the parent company can switch to another subsidiary in another part of the world to take over the manufacturing orders. Therefore, it is

imperative that the domestic manufacturers maintain their competitive edge over their competition domestically and abroad to ensure that their manufacturing operations in South Africa continue.

Demand conditions refer to the nature of the home market demand for specific products and services (Hill, 2009:181). The power and sophistication of buyer demand facilitates the development of competitive advantages in particular industries (Cavusgil et al., 2014:182). The demand of automotive leather by Eastern Europe motor vehicle manufacturers is high. These markets use the highest amount of automotive leather in the manufacturing of vehicles and are considered to be the main markets for South African manufacturers of automotive leather. The demand for automotive leather by domestic vehicle manufacturers has been minimal, and is perceived to remain minimal under the APDP.

Related and supporting industries refer to the presence of clusters of suppliers, competitors, and complimentary firms that excel in particular industries (Hill, 2009:181).

Factor conditions describe the nation's position on factors of production, such as: labour, natural resources, capital, technology and entrepreneurship (Hill, 2009:181). This will determine the nature of a nation's competitive advantage. Although South Africa has an abundance of natural resources to support its competitive advantage as a country, it has a weakness in labour stability even though, in the automotive industry, there are three year wage agreements in place. This has resulted in South African manufacturers of automotive leather losing their competitive edge against competitors, because they have lost contracts in manufacturing automotive leather for the major OEMs.

Besides these four elements, Porter argues that there are two added determinants that can also affect the national competitive advantage. The first variable is government's effect, and in South Africa, this can be further understood by the implementation of government's latest rendition of its automotive policy regime, the

APDP, which started in 2013 and will continue until the year 2020. The second variable is chance events (see figure 5.1) and these two variables are necessary to complete the model. Porter regards chance events as matters that have little to do with situations in the nation. Chance includes unpredictable technological discontinuities, new inventions and wars, rapid changes in financial markets or exchange rates, political decisions by foreign governments and other chance events (Aregbeshola et al., 2011:21, 22).

Even though chance and government's role in the diamond model of Porter are introduced as additional variables, their role, especially that of government, is very important and has a direct impact on all four main elements. According to Porter (1990:87), the role of government is as a catalyst and challenger. This means that they need to encourage firms to raise their aspirations and attain higher levels of competitive performance. Government policies that succeed are those that establish an environment in which firms can obtain a competitive advantage. South Africa's APDP is a policy that has been implemented by government in order to try and obtain a sustainable competitive advantage in this era of rapid globalisation.

Globalisation, the issue of and its impact on the research area, will be discussed next.

5.2.4 Globalisation

Globalisation has altered the way in which firms are conducting business because of new opportunities and threats, and it also impacts on the diamond model of national advantage. Competition, relating to automotive leather products, has intensified to such an extent that mediocrity and traces thereof are being eliminated because of technological change, globalisation, and South Africa's role in the global economy, as well as its link to the global supply chains of the motor industry. It is, therefore, important to understand the effect of globalisation. In order to have a comprehensive meaning or understanding of globalisation, it is important to completely understand the multiple use and definitions of the term. The reason therefor is that different

people may view globalisation differently, this can be explained further by analysing the meaning of globalisation through the eyes of Kelly (2009:17) and Aregbeshola et al. (2011:5):

- A researcher or academic may view globalisation as communication, the creation of new products, technological innovation or inventions.
- A business person may view globalisation as the global financial system, business software innovations, and the financial and political economies of countries.
- Banks and other financial institutions may view globalisation in economic terms only. This implies the monetary system and the legal aspects, such as the Basel requirements.

Because globalisation can be viewed with so many different dimensions, a single author's or individual's definition will not suffice in the global context. Lasserre (2012:4) defines globalisation as "a process that enables people, products, information and money to be able to cross borders with much ease". Cavusgil et al. (2014:38) defines globalisation as "a macro trend of increased economic interconnectedness amongst the nations of the world". In its broadest sense, globalisation can be defined as "the shift towards a more integrated and interdependent world economy" (Nieman and Bennett, 2014:339).). For the purpose of this study, the last definition will be the most appropriate to use as a working definition for discussion in this section.

The reality is that the rapidly changing global business environment will gain even greater momentum in the face of continuing trends in regional integration and globalisation. In such an environment, the products and services of companies have to contend with increasing competition from domestic and foreign corporations, and even more so where trade barriers and other protective market measures are currently being reviewed to liberalise global markets (Aregbeshola et al., 2011:xxiii).

Many economies have become much more globally integrated and are, therefore, striving for increased market share of international markets. This can be noted seeing that international trade and investment, over the previous three decades, have increased at a more rapid rate in comparison to the world economy (Lasserre, 2012:2). According to Sturgeon, Memodovic, Biesebroeck and Gereffi (2009:9), the automotive industry contains key characteristics, that are common to other globalised industries, such as FDI and international trade, which, over the previous three decades, has increased drastically. The other key characteristic is that because of WTO agreements, investment and trade have been liberalised and this has increased, and encouraged, diverse sourcing structures.

Globalisation has increased and intensified international competition, which is restructuring and diversifying global manufacturing and trade (Gereffi and Lee, 2012:25). The South African leather industry has experienced significant changes within the last 30 years as a result of globalisation and the impact of the various automotive policy regimes of the country. The following section will analyse the main drivers of globalisation.

5.2.4.1 Drivers of globalisation

By the early 1970's, globalisation had become a reality. This was directly related to certain political, technological, social and economic factors. Global production and manufacturing have excelled. In 1950, world production that was sold outside its country of production, stood at approximately 7% in comparison to approximately 25% today (Daniels et al., 2011:51). According to Aregbeshola et al. (2011:7), Daniels et al. (2011:51), Lasserre (2012:4), Kinicki et al. (2013:76, 77), as well as Nieman and Bennett (2014:27-38), the following are the forces driving globalisation:

5.2.4.1.1 Political – refers to changes in the way politics shape laws, and laws shape the opportunities for, and threats to, an organisation (Kinicki et al., 2013:77).

Developing and growing free trade amongst countries have been the primary political factor. There are two primary organisations that have influenced and encouraged the liberalisation of trade. In 1946, 23 countries originated the General Agreement on Tariffs and Trade (GATT) and replaced it in 1995 with the WTO, and the second primary organisation is the EU. In 1957, the European Economic Community (EEC) was established with a goal to increase integration of economic and political activities of different countries. As a result, people, products and financial flows would be more accessible throughout countries and in turn increase FDI initiatives.

The political environment of a country, or a country in which an organisation will want access, is of utmost importance because this will have a drastic effect on its domestic and international operations. An organisation's degree of international involvement will guide the level of assessment needed regarding a particular country's political climate. Of primary concern to the South African automotive leather industry is the stability of the political and economic environment of the EU, because the majority of its business is exported to the EU. Although the political environment is relatively stable, the inability of the EU countries to grow their economies is a main concern, as well as the overdependence on Germany to kick-start the EU economy.

According to Business Day (2013a), the EU is by far South Africa's largest trade and investment partner, with investments worth approximately one-third of South Africa's GDP of approximately R3 trillion. The EU has reiterated that South Africa should desist from cancelling its Bilateral Investment Treaties (BITs), which concerns approximately 13 European economies. BITs are of particular importance to small and medium sized companies, which are the majority of German companies in South Africa.

The EU has offered to reduce major trade barriers regarding South Africa's sugar and wine industries in European markets in an effort to desist South Africa from cancelling the BITs. However, the current Minister of Trade, Davies, replied that he has taken note of the EU's offer with regards to sugar and wine exports into the bloc,

but the trade benefit between the two parties are significantly less for South Africa seeing that South Africa's exports to the EU would be much less than the imports from the EU (BD, 2013b). This basically refers to the negative balance of trade that exists between the EU and South Africa.

The South African government had unilaterally commenced with the cancellation of BITs, including having cancelled a co-signed Belgium-Luxembourg treaty, and one each with Spain and Germany, one of South Africa's largest trading partners (BD, 2013b). The reason why the South African government cancelled the BITs is that it has been replaced with the Promotion and Protection of Investment Bill. The Europeans lodged an official complaint regarding South Africa's policy of renouncing BITs because the new bill does not provide the same levels of protection for European investments.

The unilateral change of the investment regime in relation to the EU is not good for South Africa. It has been made clear by the EU, and a number of ambassadors, that there is unhappiness because of this matter, and that this would have a negative impact on trade and investment relations between South Africa and the EU (BD, 2013b). The South African government had responded by reassuring European investors that the action will not impact on investment integrity in the country because it is protected by the Constitution. All existing investments will remain protected by the treaties for 20 years, however, new investors are in the interim unsure of the terms of their property and legal rights (BD, 2013b). The cancellation of the BITs had, to date, no direct impact on investments in the automotive industry in South Africa.

5.2.4.1.2 Technological – refers to new developments in methods and processes for transforming resources in to goods and services (Kinicki et al., 2013:76).

The technological environment and changes therein can be regarded as the primary driver responsible for changes in the environment. It is generally a manifestation of technological innovation that originates from research and development.

Technological innovation results in not only new machinery, but also new processes, methods, services and products. Technological innovation has rapidly increased the process of globalisation. This can be attributed to four key features, and these four features are: the internet, videoconferencing, e-mail and the World Wide Web (Cavusgil et al., 2014:69-72).

Technology is a critical factor in economic development. According to Aregbeshola et al. (2013:9), in the arena of global business, technology is important for three reasons:

- Technology itself has facilitated the process of globalisation and has allowed companies to go international, both through their sales and through production.
- Multinational companies themselves then facilitate inter-country and intercompany transfers of technology.
- A country's lack of technological sophistication can act as a hindrance to foreign investment by raising the costs of doing business there.

5.2.4.1.3 Social – refers to the influences and trends originating in a country or a society, or a culture of human relationships and values that may affect an organisation (Kinicki et al., 2013:76).

Brand awareness has increased worldwide and this can be attributed to TV, the internet, social media and the different lifestyles of consumers (Lasserre, 2012:6). A brand is a unique mark or distinction that is attached to a product, produced or manufactured by a specific business that wishes to distinguish themselves from competitors (Du Toit, Erasmus & Strydom, 2012:388).

In South Africa, the DTI plays a critical role in the promotion of economic development and meaningful participation in the global economic and trade environment. The Export Promotion Directorate of the DTI is responsible for developing and promoting South African goods and services, including specific

technical and interventions in the form of Export Marketing and Investment Assistance (EMIA), financial support, matchmaking, market intelligence, trade lead facilitation, and in-market support (AIEC, 2014:6). For the automotive industry in South Africa, a flagship tool and successful platform to showcase and promote the South African automotive industry's world-class capabilities is participation by means of National Pavilions at major world events. The two automotive National Pavilions approved for 2014 include the Automechanika Middle East, United Arab Emirates' National Pavilion and the Automechanika Frankfurt, Germany's National Pavilion (AIEC, 2014:6). The 2014 national automotive event in South Africa was the South African Automotive Week that took place from 13 to 17 October 2014 in Midrand, Johannesburg. These motor marques and National Pavilions are an important part of the globalisation process.

5.4.2.1.4 Economic – refers to the general economic conditions and trends, unemployment, inflation, interest rates and economic growth that may affect an organisation's performance (Kinicki et al., 2013:75).

The economic environment is of utmost importance because foreign investors are attracted to a country that has a healthy economic environment. Globalisation has impacted the economic environment in two ways. Firstly, the way manufacturing had occurred has changed because, nowadays, there are various stages in the manufacturing process, and these stages are happening in more than one factory domestically and abroad, as compared to the past where a product used to be entirely produced, or manufactured, in a single factory (Ballard, 2001:5). Secondly, consumption patterns have changed and trade barriers have tumbled, which in turn has encouraged and promoted international trade (Ballard, 2001:5).

Global institutions, such as the WTO, World Bank and International Monetary Fund (IMF), have been the fundamental drivers of trade liberalisation where trade barriers are being eliminated in an attempt to promote international trade. Whereas, in the past, the inward focus was dominant in most countries, this has been greatly

reduced as more countries have become more economically integrated in some way or another.

South Africa, along with other countries, have become more economically integrated by agreement, or treaty, usually on a regional basis, to form a trade bloc that secures benefits for the participating member states through a meaningful reduction in, or total elimination of, tariffs and non-tariff barriers in the cross-border transfer of goods, services, labour and capital. South Africa participates in the Southern African Development Community (SADC), which operates as a Free Trade Area (FTA). The SADC comprises 15 sub-Saharan African countries that provide access to a market of approximately 300 million people and a regional GDP of 600 billion US dollars (AIEC, 2015:82).

According to Hill (2009:266-270) as well as Aregbeshola et al. (2011:57), economic integration manifests at three levels: global, regional and bilateral, and could impact the economic activity of the South African leather industry with regards to the exports of stitched leather seats to the EU.

Global economic integration is facilitated by the rules and regulations of global institutions, such as the WTO, the IMF and the World Bank. These organisations establish rules and adjudicate trade-related disputes across the world. They promote global trade and investment through treaties that are ratified by member nations, thereby providing a platform for fair trade and investment.

Regional economic integration exists amongst countries that are located in the same geographical region (Hill, 2009:266). This form of integration benefits member nations seeing that trade barriers are largely removed to facilitate an easy trading regime amongst member states, while individual states are at liberty to apply barriers to third parties as it suits their peculiar circumstances.

A bilateral trade relation is a trade agreement between two parties. The SACU-EU free trade agreement can be used as an example. This level of integration facilitates preferential treatment between the two signatories to the agreement.

A primary reason why various stakeholders analyse the economic environment domestically and internationally is to try to establish whether any opportunities exist for marketing a company's products and services (Aregbeshola et al., 2011:94). It also assists in the evaluation of the potential benefits, as well as the costs and risks involved by possibly transferring a part, or parts, of the company's production, manufacturing and distribution facilities. The goal of analysing the economic environment is, therefore, to assess the potential benefits, or possible risks, to a country's economy, both in the short and long-term, and then to assess how potential economic changes could affect the firm (Aregbeshola et al., 2011:95).

According to Aregbeshola et al. (2011:94), the potential benefits of doing business with, or investing in, another country are largely determined by the following considerations:

- The market size (essentially the size of the population)
- Current wealth (in terms of the purchasing power of its population)
- Future economic prospects

The global financial crisis of 2008/2009 has resulted in the decline of the Euro Zone markets, which had affected South African exports of stitched leather seat parts. By the end of 2011, the Euro Zone markets had contracted, meaning growth was negative and the crisis that originated as a debt crisis in a few peripheral Euro area countries, widened as investors feared that the troubles would spread to larger countries and that European leaders would not be able to manage the crisis. Through several avenues, the impact and nature of the crisis have triggered challenges in the Euro economy as a whole (Euro challenge, 2012:1):

- Banks became more cautious in their lending and, therefore, businesses and consumers could obtain less credit. This affects the South African export market because the current disposable income in the Euro Zone areas is low and businesses are demanding more competitive prices.
- Businesses have to lay off workers, and consumers are spending less money, consequently, trading down in categories such as automobiles. South African stitched leather seats are exported and used in premium brand vehicles, and because consumers are buying down, the export of this product category from South Africa has declined.
- In order to reduce the deficit and debt levels, governments have reduced spending, which has helped to counter the debt crisis, but impacted negatively on countries' growth figures, affecting the economic activity of these countries negatively.

The future economic prospects of the South African leather industry, with specific reference to the export of stitched automotive leather seat parts, are directly related to the foreign exchange rate. One of the key characteristics that distinguishes international finance, in comparison to purely domestic finance, is the foreign exchange variable. Foreign exchange can be defined as the money of a foreign country, usually in the form of bank deposits drafts, or financial claims on an economic agent of the foreign country (Kelly, 2009:571; Hill, 2009:684). The exchange rate is the value of one currency in comparison to a different currency, for instance: the South African Rand versus the Euro.

The volatility of the South African currency, over recent years, has also contributed to the increased vulnerability of the South African leather value chain seeing that this influences long-term contracts, and raw material costs react almost immediately to currency movements owing to the unrestricted commodity value of South African hides internationally.

Currently, the weak South African currency should increase the demand for stitched automotive leather seat parts and the weak rand might change the prospects of

sewing plants. If the weak rand persists for the next two to three years, OEMs might again consider sewing plants' quotes for new vehicle models or upgrades.

There are two critical factors to consider when dealing with the exchange rate. The first factor is, because tanneries and sewing plants are more than 90% foreign owned; they are exposed to exchange rate fluctuations and, therefore, exposed to foreign exchange rate risk, which will now be discussed. There are three main types of foreign exchange rate risk. Aregbeshola et al. (2011:311-317), Daniels et al. (2011:775-777), as well as Madura & Fox (2011:340-360) concur that the following three are the main types of foreign exchange rate risk:

- Translation Exposure – basically arises because the parent company must consolidate the financial statements of all its foreign subsidiaries into the parent company statement. The financial statements of subsidiaries are usually prepared in terms of the foreign currency of the host country and must be translated in home currency terms to allow its components to be added to the account balances of the parent firm at the end of a financial year. A MNCs' level of translation exposure is determined by the following: how much of its business is transacted by its foreign subsidiaries, in which locations are the foreign subsidiaries based, and in particular, the degree of stability of the currency when compared to the home currency and the accounting methods used.

- Transaction Exposure – refers to how exchange rate fluctuations can impact on the value of future cash transactions. To measure a MNCs' transaction exposure, it needs to forecast the consolidated net value in currency inflows or outflows for all its subsidiaries, categorised by currency.

- Economic Exposure – the extent to which a change in the bilateral exchange rate between two currencies of a MNCs' dealings affects the present value of expected future cash flows of the MNC. Economic exposure arises because of certain factors, such as: the location of investments, pricing of the products

and the cost of inputs, and where it is being sourced. Economic exposure differs from translation and transaction exposure in two important respects: firstly, it is a subjective concept that is not easily identifiable or measured, and secondly, because of its long-term implications, recognising and dealing with economic exposure is by far more important than dealing with translation or transaction exposure.

The second critical factor is that the South African automotive leather industry cannot operate for two to three years with the implicit hope that the exchange rate still remains weak in order to obtain OEMs' contracts. They need to be price competitive now in order to win over OEMs' contracts before their dire position spirals out of control. It is generally regarded by the industry that competitiveness cannot be based on a weak currency. It must also be noted that even though South Africa might look attractive because of a weak currency, there are not any known new automotive leather manufacturing contracts coming South Africa's way from BMW or Mercedes-Benz (JALI, 2014). This contributes to the dire position of the South African automotive leather industry.

5.2.4.2 Globalisation and the two key objectives of the South African APDP

Governments around the world are moving towards achieving a higher level of Foreign Direct Investment (FDI) and, in South Africa, the APDP is a policy support instrument seeking to achieve this. The APDP has two key objectives as part of its vision in elevating the industry to the next level. This could provide alternate opportunities to achieve sustainable competitive advantages. The one key objective, which had been discussed in chapter 2, is to increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020. The second key objective, relating to the supply chain, is to substantially broaden and deepen the domestic components supply chain. The complete automotive leather supply chain is in operation in South Africa and had been discussed in chapter 3.

The global competitive advantage strategies will be discussed next.

5.2.5 Global competitive advantage

Competitive advantage, in a domestic context, is achieved when a firm successfully connects its internal strengths in its capabilities and resources to the key factors in the domestic industry, or industries, in which it is involved. The following are different factors that a firm may use to obtain a competitive advantage (Hill, 2009:408-416; Aregbeshola et al., 2011:253, 254):

5.2.5.1 Location economies

Location economies means access to comparative resources at reduced prices compared to other markets, or simpler access to key markets because of being nearer to them, therefore, avoiding transportation costs or costs associated with trade barriers (Hill, 2009:410). The impact of locating activities, where they are most effective, is that the firm will end up managing a sophisticated global network of value-creation activities. This is a key aspect for motor manufacturers. Chery's main manufacturing facility is in China and there are many other countries that manufacture Chery as well. In South Africa, Chery has made inroads in the automotive market since being imported from 2008; it entered into a joint venture with Bidvest and Imperial, and is operating in more than 30 dealerships countrywide (Chery, 2013). The vehicles that Chery manufactures are also very price competitive in the South African market (Chery, 2013).

5.2.5.2 Economies of scale and scope, and experience

When a firm increases its manufacturing and sales volumes, it will gain from cost benefits of increased experience, scale and scope, as a means of increasing efficiencies. The rewards of economies of scale are realised from large increases in manufacturing and sales volumes associated with international expansion. In many industries that require high investments in manufacturing facilities, such as the automotive industry along with some associated industries, this is a necessity rather

than a choice, as a means to recoup high capital expenditure. When the firm increases its scope through global expansion, the firm can benefit from economies of scope that flow from sharing resources across organisational units (Cavusgil et al., 2014:51). Toyota is an example thereof seeing that they are the top vehicle manufacturer in the world, has manufacturing operations on all the continents, and has manufactured more than 10 million vehicles globally in 2013 (OICA, 2015:1).

5.2.5.3 Leveraging core competencies

Leveraging core competencies means that, because of increased globalisation and because trade barriers have tumbled, it allows firms to leverage core competencies and to increase financial returns by taking goods or services produced, and manufactured, in the home country and replicating them in other geographical markets (Hill, 2009:408). Toyota is an example of an automobile manufacturer leveraging core competencies.

5.2.5.4 Leveraging subsidiary skills

Firms are often in a position where they can leverage subsidiary skills. Leveraging the skills created within subsidiaries and the local market, and applying them to other operations within the firm's global network may create value (Hill, 2009:414; Aregbeshola et al., 2011:253).

5.2.5.5 Government incentives

Governments operate at local, provincial, national and supranational levels to develop and enforce laws, and to provide basic economic security by devising fiscal and monetary policies (Cavusgil et al., 2014:107). Because of government's pivotal role in international trade, firms may exhibit a strong influence by a government's trade policy (Hill, 2009:186). The decision to globalise may also be the result of taking advantage of government support programmes designed to attract foreign

investment. South Africa's APDP is such a policy, designed to potentially attract foreign investments to the domestic market.

The international competitive strategies will be discussed next.

5.2.6 International competitive strategies

To succeed in the dynamic and competitive global business environment, firms need to have viable strategies, premised on a clear strategic intent, a mission, and long-term objectives that are synchronised to reflect the firms' intended international involvement. While these are the primary drivers of strategic choices, there are also other internal and external factors that play a role in the choice of international strategy. Internal factors, such as strategic orientation, influence how firms think about strategy and, therefore, their options, while the two key external factors, namely cost pressure and the need for local responsiveness are external drivers of strategic choice (Hill, 2009:415, 416; Aregbeshola et al., 2011:256).

The demand, by domestic vehicle manufacturers, for automotive leather has been minimal and under the APDP it is perceived that it will still be minimal. The main market for which automotive leather is being exported and utilised is in the EU. Although South African manufacturers are very competitive when manufacturing automotive leather according to OEMs' specifications, the manufacturers in South Africa lose momentum in their competitiveness when the goods have to be transported over long distances to the main markets. This is owing to South Africa's poor geographic location in the world's automotive markets. Thus, the far distance away from the main markets gives the domestic manufacturers a real pricing disadvantage compared to competitors from Eastern Europe, and the incentives provided under the APDP do not counter all these additional costs, which further impacts on the domestic manufacturers' competitiveness.

The strategies for international business will be discussed next.

5.2.7 Strategies for international business

According to Hill (2009:419-424), Daniels et al. (2011:466-471) and Cavusgil et al. (2014:335-344), there are four international strategies available, namely: international strategy, localisation strategy, a global strategy and transnational strategy. MNC's can also employ a combination of these strategies, depending on their unique positions. These four strategies will now be discussed:

5.2.7.1 International strategy

Some MNCs can follow an international strategy because it complies with the following criteria (Kelly, 2009:89; Daniels et al., 2011:466, 467):

- If the MNC has a valuable core competence, or strategic resource, that indigenous competitors in foreign markets lack.
- It faces relatively weak pressures for local responsiveness and cost reductions.
- It has the potential to obtain economies of scale and the benefits of being sensitive to the preferences of specific countries' markets are of little value.

Should pressures for cost reductions or local responsiveness (or both) increase as an organisation expands internationally over time, it may need to consider changing to a different international strategy. Firms pursuing an international strategy generally tend to (Hill, 2009:422; Aregbeshola et al., 2011:258; Cavusgil et al., 2014:344):

- Centralise research and development.
- Gradually establish manufacturing and marketing functions over time in each major country in which they are involved.
- Limit local customisation of products in different foreign markets. Improve the quality of products and processes.
- Create economies of scale.

Competitive advantage and value creation, therefore, arises from transferring core competencies and products to markets where these are lacking.

5.2.7.2 Multidomestic strategy

A multidomestic strategy is most appropriate when there are high pressures for local responsiveness and low pressures for cost reductions. The key characteristics of a multidomestic strategy include the following (Kelly, 2009:89; Daniels et al., 2011:467, 468; Cavusgil et al., 2014:342, 343):

- There is a customisation adaptation of products for each foreign market.
- There are little system-wide opportunities to realise economies of scale.
- Production, marketing and research and development are performed as part of the value adding and value creating activities.
- Competition in each country is essentially independent of competition in other countries, and competitive advantage is intrinsic in each national market.
- Organisational decision making is decentralised and national subsidiaries function in a largely autonomous manner.
- Limited organisational learning and no, or very little, leveraging of core competencies occur.
- Cost structures are high with higher priced differentiated and customised products, and firms do not make costs and prices the basis of competition.

5.2.7.3 Global strategy

A global strategy is best when there is strong pressures for cost reduction, and where demands for local responsiveness are minimal (Hill, 2009:419). The focus is on increasing profitability by reaping the rewards from reducing costs, which are gained from experience curve effects, economies of scale and location economies (Kelly, 2009:89). The following are typical characteristics of a global strategy (Hill, 2009:419, 420; Aregbeshola et al., 2011:260; Daniels et al., 2011:469, 470):

- Mutually independent subsidiaries.
- Global economies of scale in key activities.
- Standardised product marketing worldwide to price sensitive consumers.
- Leveraging of technology across many markets.
- Global coordination of sales and branding.
- Centralised decision making, control and reporting activities.
- Production, marketing, and research and development functions concentrated in a few favourable locations.

MNCs that choose to use a global strategy require a strong culture to aid system wide coordination and networking across many markets. The South African leather industry is widely adapted to a global strategy seeing that it focuses on the main automotive markets in the EU.

5.2.7.4 Transnational strategy

A transnational strategy is best suited for when a firm faces tremendous pressure for local responsiveness, and where opportunities exist for leveraging valuable skills within the global network of operations (Hill, 2009:421; Cavusgil et al., 2014:344). This deals with firms operating with extensive global networked operations where core competencies have a reciprocal flow from parent firm to subsidiaries, and from subsidiaries to parent firm, as well as between foreign subsidiaries, which all benefit from the process of global learning. The following are typical characteristics of a transnational strategy (Hill, 2009:421; Aregbeshola et al., 2011:260; Daniels et al., 2011:470, 471; Cavusgil et al., 2014:344):

- Achieve low costs through location economies, economies of scale and learning effects.
- Production facilities are established in a few favourable locations to attend to customisation when needed, while pursuing low costs by using multipurpose, universal components countries where possible.

- Decision making is both centralised and decentralised. Structures are complex and usually require a matrix organisation with a dual reporting system.

This strategy is much more difficult to pursue because the firm is trying to differentiate products to meet the demands of the market in different geographical places, but this, raises costs, which defeats the goal of reducing costs (Hill, 2009:421).

Each strategy listed has certain characteristics along with benefits and pitfalls. The appropriateness of a particular strategic choice is determined by the tension between cost pressure and the demand for localisation.

The strategic orientation of global firms will be discussed next.

5.2.8 Strategic orientation of global firms

MNCs normally display one of four orientations, sets of beliefs, or mind-sets towards their international activities. These will be discussed further and include (Aregbeshola et al., 2011:256, 257):

5.2.8.1 Ethnocentric orientation

The firm believes that everything that originates from its home country is the best, and that the values and priorities of the parent firm must guide the strategic decisions regarding all its foreign operations (Aregbeshola et al., 2011:257).

5.2.8.2 Polycentric orientation

The firm believes the culture of the country, in which a subsidiary or foreign operation is located, receives priority and dominates decision making (Aregbeshola et al., 2011:257).

5.2.8.3 Regiocentric orientation

The predisposition of the parent firm is largely blended with those subsidiaries or operations in other regions, thus accommodating regional influences (Aregbeshola et al., 2011:257).

5.2.8.4 Geocentric orientation

The firm adopts globally integrated systems and has a networking approach to strategic decision making; displays a worldwide attitude; and promotes multiculturalism and global learning. Decisions are made at the parent firm level as well as in subsidiaries, as dictated by circumstances (Aregbeshola et al., 2011:257). Regarding the South African leather industry, most tanneries and sewing plants are foreign owned MNCs where decisions are predominantly made by the parent company. They, therefore, are considered to belong to the geocentric orientation.

The sustainable competitive advantages will be discussed next.

5.2.9 Sustainable competitive advantages or business level

There are some businesses that have become successful because they possess some advantage relative to their competitors. According to Pearce and Robinson (2013:231), the two most prominent sources of competitive advantage can be found in the businesses' costs structure and its ability to differentiate the business from its competitors. Businesses that create competitive advantages from one, or both, of these sources, usually experience above-average profitability within their industry.

5.2.9.1 Low cost leadership

The success of the business is built on cost leadership. This requires the business to be able to provide its product, or service, at a lower cost than its competitors and it must be a sustainable cost advantage (Pearce and Robinson, 2013:232, 233).

Business strategies that seek to establish long-term competitive advantage through lower costs will require an emphasis on perfecting value chain activities in order to sustain their competitive advantage. Low cost activities that are sustainable and that provide one, or more, of the following advantages relative to key industry forces, should become a key basis for the businesses' competitive strategy (Pearce and Robinson, 2013:234, 235):

- Low cost advantages that reduce the likelihood of pricing pressure from buyers.
- Truly sustained low cost advantages may push competitors in other areas, decreasing the price competition.
- New entrants competing on price must face an entrenched cost leader without the experience to replicate every cost advantage.
- Low cost advantages should lessen the attractiveness of substitute products.
- Higher margins allow cost producers to withstand supplier cost increases and often gain supplier loyalty over time.

The domestic leather industry can be considered a cost leader in South Africa because they can produce, and manufacture, automotive leather interiors at more competitive prices than the EU. However, the demand by domestic manufacturers has been minimal because of the domestically manufactured model mix, while automotive leather is primarily fitted in the premium brand vehicles that are, by and large, imported in full with no local value addition. The problem of sustaining this competitive advantage arises when the manufactured goods need to be airfreighted at great cost, to the main automotive markets in the EU where the demand for automotive leather interiors is much higher, only to be re-imported back again as part of the total product (e.g. Mercedes Benz S500 series).

5.2.9.2 Differentiation

Product differentiation is a business strategy whereby companies would attempt to gain a competitive advantage by increasing the perceived value of their products, or

services, relative to the perceived value of other companies' products or services (Barney and Hesterly, 2012:150). Product differentiation strategies add value by enabling firms to charge prices for their products or services that are greater than their average total cost. Companies that implement this strategy successfully can reduce a variety of environmental threats and exploit a variety of environmental opportunities (Barney and Hesterly, 2012:160).

The South African leather industry can be classified as being different from competitors, because the products that are being manufactured are unique to the premium and niche automotive market, manufactured according to OEMs' specifications and standards that are relatively high. Although the South African leather industry can be classified as following both, cost leadership and differentiation strategies, the major drawback is that the finished automotive leather interiors have to be airfreighted to the main automotive markets in the EU. The logistical costs of airfreight cause South African manufacturers to be at a real disadvantage, and the incentives provided under the APDP do not counter all these additional costs. The other major drawback is that because the domestic manufacturers are more than 90% foreign owned, the parent companies operate identical operations in other parts of the world and, therefore, can easily switch manufacturing operations to competitors in those parts of the world (JALI, 2014). This basically means that the business unit, anywhere in the world, that can be the most competitive, will get the business based on cost parity exercises.

The basic theoretical constructs of supply chain management and its impact on the South African automotive leather industry will be discussed next.

5.3 Supply Chain Management (SCM)

5.3.1 Definition of a supply chain and SCM

According to the Council of Supply Chain Management Professionals (CSCMP, 2013:186), the supply chain can be described as:

- It starts with unprocessed raw materials and terminates with the consumer utilising the finished goods; the supply chain connects a large number of companies together.
- The logistical process incorporates: the acquisition of raw materials and information to the delivery of completed products to the end user. The supply chain consists of different links, such as: vendors, service providers and customers.

According to Chopra and Meindl (2013:13), a supply chain incorporates all parties involved in fulfilling a customer's request through direct or indirect methods. It typically includes the involvement of organisations from upstream (supplier end of the supply chain) to downstream (customer end of the supply chain) links (Ambe, 2012:23). A normal supply chain usually includes suppliers, manufacturers, distributors, retailers and customers (Chopra and Meindl, 2013:14).

An organisation's supply chain encompasses the coordination of raw materials, information, and funds from the first raw material supplier to the final customer. It can be described as the management of the value added process from the suppliers' supplier to the customers' customer (Daniels et al., 2011:678). A supply chain starts when an organisation orders raw materials or components for production or manufacturing from suppliers. These raw materials are then converted by manufacturers in to specific materials of use for their specific customer's needs. An important dimension of the supply chain that must be highlighted is the logistics of raw materials and final products. Along the entire supply chain, the transportation of raw materials and final products are required. From the raw material suppliers, it is transported to the manufacturing facility for the manufacturing or assembly process. On completion, the final goods are generally transported to a distribution centre, such as a warehouse, where the goods are received, stored and distributed to stores either locally or internationally. Figure 5.2 represents a simple supply chain.

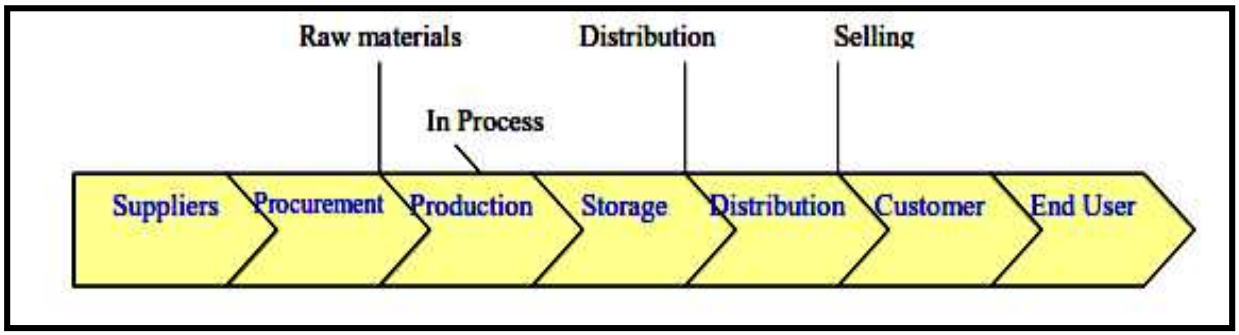

Figure 5.2: Simple supply chain

Source: (Naude, 2009:62)

According to Fawcett et al. (2014:6), the term value chain was first coined by Michael Porter in order to describe the interconnected nature of these internal functions. Aregbeshola et al. (2011:291) observed that supply chains are linked to value chains, however, the supply chain is a sub-system of the value chain that focuses primarily on the physical movement of goods and materials along with supporting information through the supply production and distribution processes. The value chain is a way of presenting how value is added in the operations processes, taking into account manufacturing, service delivery, logistic activities and the required supplies.

A supply chain can be described as a network that connects the different links in the value chain from the producer to the final consumer (Daniels et al., 2011:678). Figure 5.3 represents a generic supply chain network.

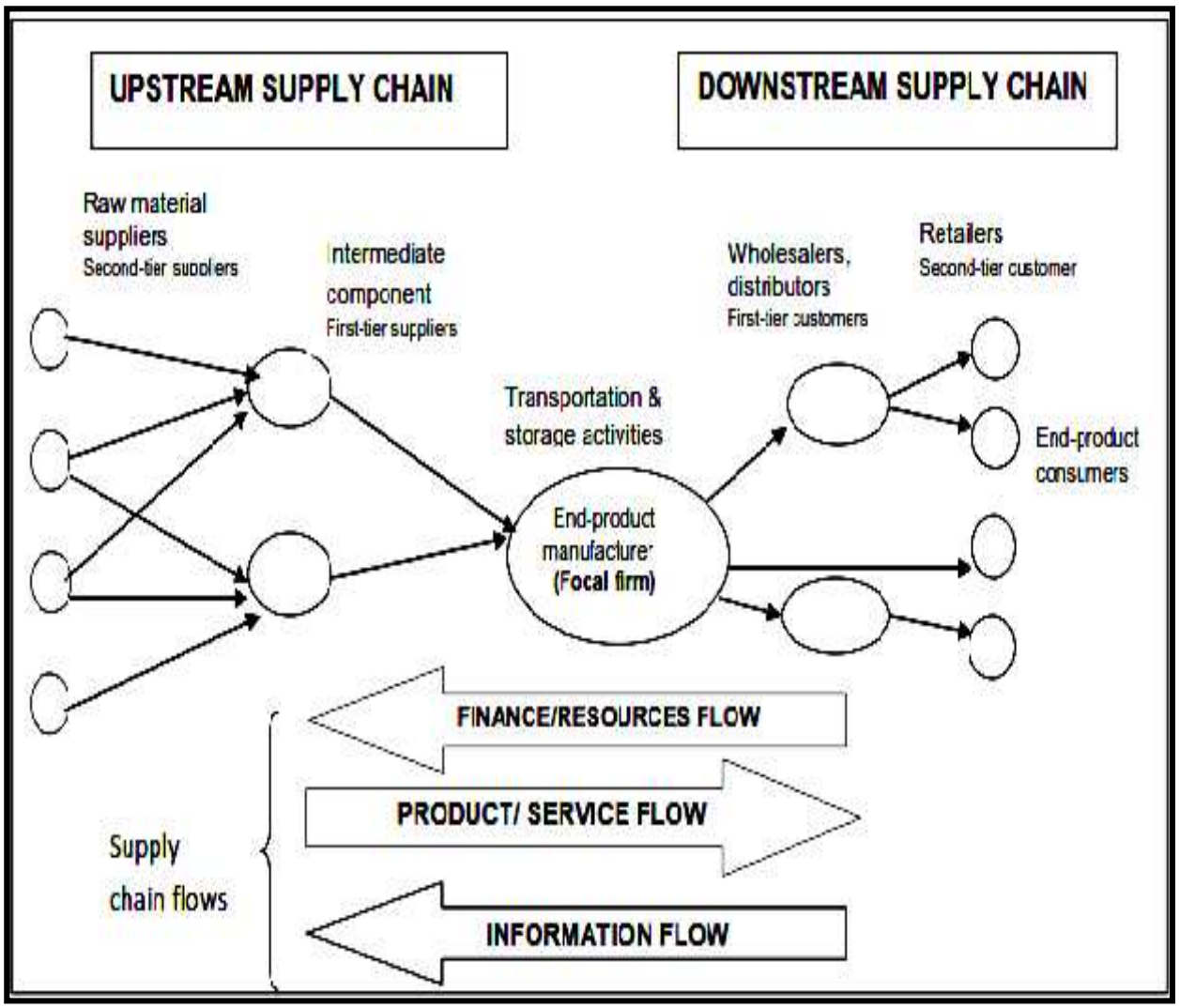

Figure 5.3: Framework for a generic supply chain network

Source: (Wisner, Tan & Leong: 2012:6)

As revealed in figure 5.3, within a supply chain there are characteristics and decisions that form part of the value adding process. These characteristics and decisions are integrated in to the supply chain process as enablers that form part of a value adding process. This value adding process can be termed as “Supply Chain Management” (SCM).

There are a variety of definitions to describe SCM. According to the Institute for Supply Management as adopted by Fawcett et al. (2014:6), the definition for SCM can best be defined as: “SCM is the design and management of seamless, value added processes across organisational boundaries to meet the real needs of the end customer”. According to the CSCMP (2013:187), “Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies. Supply Chain Management is an integrating function with primary responsibility for linking major business functions and business processes within and across companies into a cohesive and high-performing business model. It includes all the logistics management activities noted above, as well as manufacturing operations, and it drives coordination of processes and activities with and across marketing, sales, product design, and finance and information technology”. As previously inferred, the South African leather manufacturing industry forms part of the global supply chain of the OEMs and is now struggling with the changes that occurred with the introduction of the APDP policies by the South African government.

The objectives of SCM will be discussed next.

5.3.2 Objectives of SCM

The objective of SCM is to maximise value in the supply chain (Fawcett et al., 2014:14). The value concept is broad, it is not only financial or monetary value, but also adding value with regards to time, form utilities and place (Nieman and Bennett, 2014:7). Value is defined as the measurement of a firm’s capability to sell what it makes for more than the costs incurred to make it (Daniels et al., 2011:444). The difference between the costs incurred in a supply chain to fulfil a customer’s request and what the final product is worth to the customer, is the value it creates. The ultimate goal of a SCM process is to establish customer and shareholder value, and

this can be achieved by utilising technology and teamwork to build efficient and effective processes that create value for the end customer (Fawcett et al., 2014:6).

It is of utmost importance to understand what customers consider as valuable, and what is not. According to McKeller (2014:9), value adding activities in the supply chain are those that:

- Help transform materials in to a product as it moves through the chain.
- Customers want and are willing to pay for.
- Enhance the customer's evaluation of the products' worth.

Non-value adding activities are those that do not meet these criteria. That is, they do not directly contribute to the final product and service that the customer requires. Poor management in the supply chain that leads to excess inventories; poor transportation choices that inflate costs; redundant activities, such as warehousing and storage in multiple locations; and shortfalls in production that lead to higher costs are not things customers are willing to pay for (McKeller, 2014:9). All parties to the supply chain benefit when non-value adding activities are eliminated, or reduced, substantially.

A firm's supply chain incorporates the management of materials, information, and funds from the first raw material supplier to the final customer, and more value can be added if it is handled efficiently. It is the management of the value added process from the suppliers' supplier to the customers' customer. The more efficient and effective a firm and its supply chain are in fulfilling customer requirements, the more profitable they will be. The complete automotive supply chain on various input industries, such as the leather industry, is in operation in South Africa. Figure 3.1 reveals the supply chain of a typical leather industry, which also relates to the leather industry in South Africa.

As revealed in figure 3.1, from the farmers (the producers), the hides and skins get processed and forwarded to the tanneries. When the researcher started this study at

the beginning of 2013, there were four major tanneries manufacturing automotive leather in South Africa. In 2014, two of these major tanneries have shut down operations completely resulting in a loss of employment (ATCG, 2014). If this trend continues, the whole supply chain might be at stake because, in future, South Africa might be exporting raw hides and skins without any beneficiation of its raw materials, and taking the objectives of the APDP into account, this will totally defy the aims and objectives of the APDP.

Supply chain relationships will be discussed next.

5.3.3 Supply Chain Relationships

A main principle of SCM is that not all relationships are created equally and nor should they be (Fawcett et al., 2014:342). Suppliers are under intense pressure to reduce both their product and relationship costs, whilst still remaining competitive.

5.3.3.1 Development and management of supply chain relationships

According to the Institute for Supply Management's glossary of terms, as adopted by Wisner, Tan and Leong (2012:75), a supplier partnership is defined as: "A commitment over a period of time to work together to the mutual benefit of parties, sharing relevant information and the risks and rewards of the relationships". The different types of buyer-supplier relationships will be discussed next.

5.3.3.2 Types of buyer-supplier relationships

Fawcett et al. (2014:343), has identified three principle classes of relationships and activities and attributes common to each of them. This is revealed in figure 5.4 and discussed immediately thereafter.

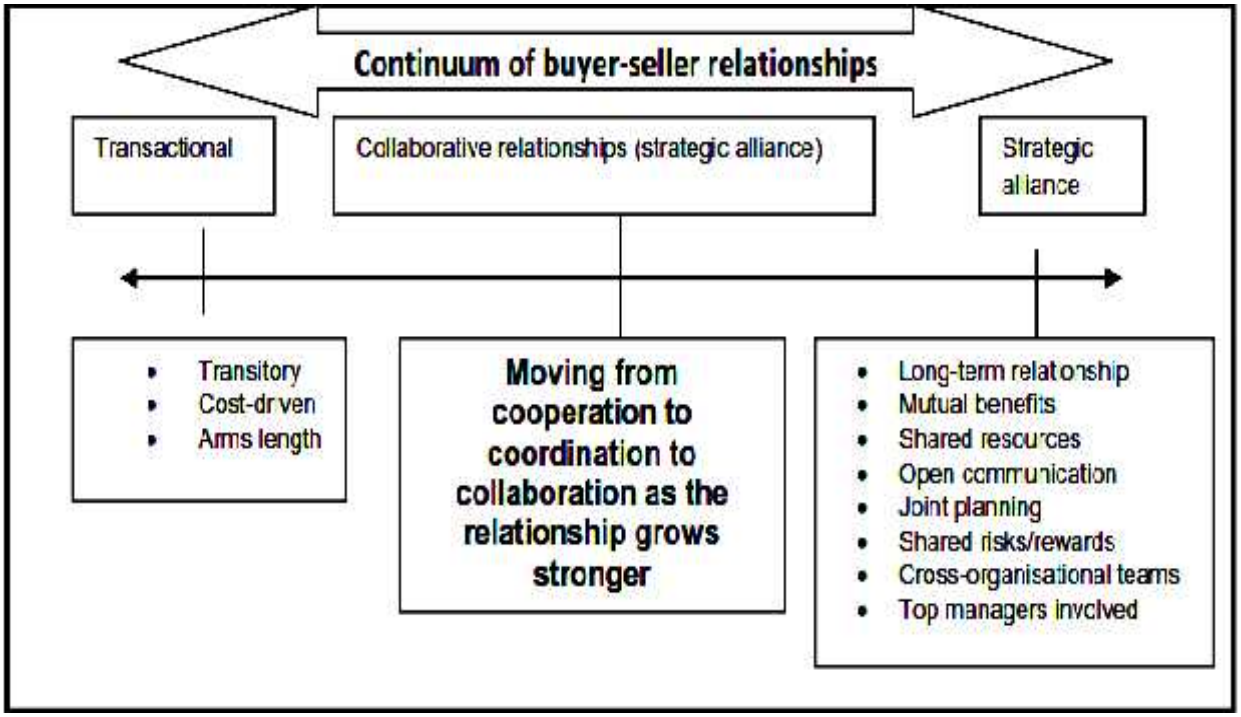

Figure 5.4: Relationship intensity spectrum

Source: (Fawcett et al., 2014:343)

5.3.3.2.1 Transactional relationships

Transactional relationships represent the majority of a firm's supply chain relationships (Fawcett et al., 2014:345), which is neither good nor bad. The reason therefor is that transactional relationships do not receive much managerial time, it is more focused on efficiency and is often transitory. Burt, Petcavage & Pinkerton (2010:66) advocate that in this relationship neither party is especially concerned with the well-being of others. In reality, all buying firms have transactional relationships.

Burt et al. (2010:67) indicate that transactional relationships have several characteristics as highlighted below:

- There is a lack of interest by both parties regarding the other party's well-being.
- Costs, data and forecasts are not shared.

- Price is the main focus of the relationship.
- There is a series of independent deals, little or no basis exists for collaboration.
- Transactional purchases lend themselves to e-procurement and reverse auctions.

In addition, Burt et al. (2010:67) highlights the following advantages and disadvantages to transactional relationships.

Advantages include:

- They require less time and effort on procurement to determine price because the market forces of supply and demand determine the price.
- Lower skills levels of purchasing staff are required.

Disadvantages include:

- Possible communication difficulties.
- Delivery and supply disruptions.
- Reluctance by the supplier to invest time and energy in the development of the potential buyer's products.
- Minimum services provided by suppliers.

Based on the prevailing situation of the domestic leather industry, the South African leather supply chain is adapted to the transactional type of relationship.

5.3.3.2.2 Collaboration relationships

The phrase, supply chain collaboration, represents the collective interactions of supply chain members towards achieving a mutually beneficial goal (McKeller, 2014:24). Collaboration amongst supply chain members is seen as one approach that contributes to reducing costs and creating a competitive advantage.

McKeller (2014:24) notes down the following reasons why supply chain collaboration is important:

- It assists with efficiency and effectiveness in supply chain operations as this is critical in the dynamic global economy.
- It assists in reducing costs and creating a competitive advantage.
- It is seen as an approach that will contribute to supply chain objectives.
- It assists in driving out costs and waste in the supply chain.
- Value is added between the parties that are passed onto the customers.
- Close working relationships also improve risk management.

The main difference between transactional and collaboration relationships are recognition of interdependency of, and necessity for, cooperation. Collaborative relationships work towards reaching a common goal that advances the interests of each party. The disadvantage of such a relationship is that it requires a large amount of time and energy to build and manage these relationships (McKeller, 2014:23).

5.3.3.2.3 Strategic alliance relationships

Strategic alliances are a core building block for achieving supply chain teams, if monitored closely and managed efficiently (Fawcett et al., 2014:347). Wisner et al. (2012:76) notes that an alliance or partnership is not really a relationship between firms; it is a relationship between specific individuals. When two firms have compatible needs and then decide to partner, this should result in a win-win situation. This type of relationship is characterised by intensive and relatively open communication, and are supported by linked information systems. According to Wisner et al. (2012:76), a productive and long lasting relationship is when both parties share in the benefits of the partnership.

The key aspect regarding strategic alliances is that partners must be committed to always searching for new opportunities to expand their businesses together.

Because partnerships are likely to experience obstacles along the way, it is critical that partners work constructively to overcome these obstacles.

5.4 Summary

Chapter 5 focused on the competitiveness theories, globalisation, sustainable competitive advantage and the theoretical principles underlying the supply chain. It elaborated on global competitive advantage, international competitive strategies and how globalisation is impacting industries. The theoretical framework for SCM was developed in this chapter. It provided the definition to SCM, as well as elaborated on supply chain relationships. The overall objectives of SCM are to add value for the customers, provide a competitive advantage and to improve profitability for supply chain firms. SCM covers the steps, flows, processes, organisations and relationships involved in transforming raw materials in to finished products and supplying them to customers. Various examples were cited to link theory with practice as far as the automotive industry and the domestic leather industry were concerned. The following chapter will discuss the research design and methodology followed to conduct the primary research for this dissertation.

Chapter 6

Research Design and Methodology

6.1 Introduction

In chapters 2, 3, 4 and 5, the theoretical foundation was established and comprised the secondary phase of the research study. Chapter 6 focuses on the research methodology that will be used to investigate the primary and secondary objectives of the study, with the core focus on the investigation of the impact of South African automotive policy changes on the domestic leather industry. The aspects that will be focused on in this chapter are: the research process, research philosophy, research approach, research design, data collection design, sampling design, the construction of the questionnaire, the reliability and validity of the study, and finally, data analysis and preparation to conduct the research. The aim of this chapter is to explain all the elements regarding the research methodology of this study in order to enable the researcher to answer the research question, namely what the impact of South African automotive policy changes are on the domestic leather industry.

6.2 The Research Process

According to Cooper and Schindler (2011:11), the research process is a series of linked stages and a sequential process involving several clearly defined steps. Figure 6.1 reveal the research process followed in this study.

Figure 6.1: The research process

Source: (Saunders et al., 2012:14)

The first three steps were executed in chapters 1 to 5 of the dissertation. The primary research objective, as stated in chapter 1, is to determine the impact of South African automotive policy changes on the domestic leather industry by capturing the responses of stakeholders that form part of the industry.

Steps 4 to 7 of the research process (data analysis and the interpretation thereof) will be discussed in greater detail in this chapter of the dissertation. Step 8 of the research process will be introduced in this chapter but a comprehensive discussion of this step can be found in the following chapter of the dissertation. The last step of the research process, namely findings and recommendations, will also be introduced in this chapter, but a comprehensive discussion of the findings and recommendations can be found in chapter 8 of the dissertation.

6.3 Research Philosophy

According to Saunders et al. (2012:127), research philosophy relates to the development of knowledge and the nature of that knowledge. The research philosophy that a researcher adopts can determine the thoughts and assumptions of how the researcher views the world. These thoughts and assumptions will underpin the research strategy and methods that a researcher will choose as part of their strategy. Saunders et al. (2012:129) highlights two important schools of thought regarding research philosophy, namely the ontology and epistemology viewpoints. Both these schools of thought will influence the way that the researcher approaches the research process and this will be discussed next.

6.3.1 Ontology

Ontology is concerned with the nature of reality. This raises questions with regards to the assumptions researchers have about the way the world operates and the commitment to particular views. There are two aspects of ontology, namely objectivism and subjectivism. Objectivism represents the position that social entities exist in reality external to, and independent of, social actors. Subjectivism asserts

that social phenomena are created from the perceptions and consequent actions of social actors. As social interactions between actors are a continual process, social phenomena are in a constant state of revision. This basically means that it is important to study the details of a situation in order to understand what is happening, or even the reality occurring behind what is happening. In certain types of research, it is possible for a researcher to use both objective and subjective lenses (Saunders et al., 2012:132).

6.3.2 Epistemology

Epistemology is concerned with what constitutes acceptable knowledge in a field of study. The researcher that considers data on resources as a necessity is likely to be more akin to the position of the natural scientist. There are three aspects of epistemology, namely: realism, interpretivism and positivism. Realism refers to the sense of reality and that objects have an existence independent of the human mind. Interpretivism advocates that it is necessary for the researcher to understand differences between humans in their role as social actors. Positivism refers to the researcher adopting a philosophical stance, and that collecting data about an observable reality and searching for regularities and causal relationships is done to generate law-like generalisations (Saunders et al., 2012:134).

For purposes of this study, the philosophy of positivism was adopted. This means that only phenomena that the researcher can observe will lead to the production of credible data. To generate a research strategy to collect this data, the researcher may use existing theory to develop hypotheses. These hypotheses will be tested and confirmed, in whole or part, or refuted, leading to further development of theory, which then may be tested by further research. It is important to note that by adopting this type of philosophy, the researcher does not have to start with existing theory. Another important component of the positivist approach to research is that the research is undertaken, as far as possible, in a value-free way. It is noted that a researcher adopting a positivist approach will be likely to use a highly structured methodology in order to facilitate replication (Saunders et al., 2012:135).

Furthermore, the emphasis will be on quantifiable observations that lend themselves to statistical analysis.

6.4 Research Approach

A research project will typically contain the use of theory, but this theory may not be made explicit in the design of the research. Saunders et al. (2012:143) highlights two approaches based on the reasoning a researcher may adopt, these are inductive or deductive and will be discussed further below.

6.4.1 Induction

The purpose of induction is to allow the researcher to get a feel for what is going on, so as to understand better the nature of the problem. An analysis of the survey data would allow the researcher to make sense of the situation and this would allow for the formulation of a theory. Saunders et al. (2012:144-146) highlights a few characteristics of an inductive approach:

- In an inductive inference, known premises are used to generate untested conclusions.
- Generalisations are from the specific to the general.
- Researchers following this approach would construct a rigid methodology that does not permit alternative explanations for what is happening.
- Research using this approach is likely to be particularly concerned with the context in which such events were taking place.

Qualitative data and a variety of methods would be used to collect this data in order to establish different views of the phenomena.

6.4.2 Deduction

Deductive reasoning occurs when the conclusion is derived logically from a set of premises, the conclusion being true when all the premises are true. It involves the development of a theory that is then subjected to a rigorous test through a series of propositions. Saunders et al. (2012:145) highlights six sequential steps through which a deductive research approach will progress:

- Put forward a tentative idea, a premise, a hypothesis or set of hypotheses to form a theory.
- By using existing literature, or by specifying the conditions under which the theory are expected to hold, deduce a testable proposition or number of propositions.
- Examine the premises and the logic of the argument that produced them, comparing this argument with existing theories to see if it offers an advance in understanding. If it does, it then continues.
- Test the premises by collecting appropriate data to measure the concepts, or variables, and analysing it.
- If the results of the analysis are not consistent with the premises (the tests fail), the theory is false and must either be rejected, or modified and the process restarted.
- If the results of the analysis are consistent with the premises then the theory is corroborated.

Saunders et al. (2012:146) highlights four important characteristics that a deduction approach possesses. Firstly, there is the search to explain causal relationships between concepts and variables. Secondly, the research would use a highly structured methodology to facilitate replication, this is important to ensure reliability. Thirdly, it is important that concepts are operationalised in a way that enables facts to be measured, often quantitatively. The fourth characteristic of deduction is generalisation, it is important to select the sample carefully and for it to be a sufficient size.

For purposes of this study, a deductive approach was adopted because the research started with theory, then progressed from the reading and analysis of secondary sources of literature as well as academic literature, and lastly the design of a research strategy was developed to test the theory.

6.5 Research Design

Cooper and Schindler (2011:139) define the research design as the blue print for the way information will be gathered, measured and analysed in order to answer the research question(s). Saunders et al. (2012:159) defines the research design as the general plan of how the researcher would go about answering research question(s). Bless, Higson-Smith and Sithole (2013:130) relate the research design directly to the answering of a research question. According to Tustin, Ligthelm, Martins and Van Wyk (2005:83), as well as Saunders et al. (2012:161-165), a research design will typically contain the following components:

- Research design method.
- Research design strategy.
- Data collection design.
- Sampling procedure.
- Development of research instrument.
- Pilot testing.

Each of these components in the research design will now be discussed independently.

6.5.1 Research design method

The research design needs to be carefully tailored to the exact needs that will address the research problem. For purposes of this study, a mixed methods research were adopted where both quantitative and qualitative research are combined in the research design (Saunders et al., 2012:166). Cooper and Schindler

(2011:161) define quantitative research as the precise measurement of something. Qualitative research seeks insights through a less structured, more flexible approach (Tustin et al., 2005:90). The aim is to generalise about a specific population, based on the results of a representative sample of that population. This may be combined in a variety of ways that range from simple, convergent forms to complex, fully integrated forms and has led to a number of dimensions of mixed methods research. The embedded mixed methods research was adopted for this study because both quantitative and qualitative research methods were used. This way, the priority of both methods varies insofar one has a dominant role and the other a supporting role, depending on the purpose of the research.

For purposes of this research, basic content analysis will be done on the qualitative responses. Content analysis is a method of analysing written, verbal or visual communication messages (Elos & Kyngas, 2008:107). Content analysis allows the researcher to test theoretical issues to enhance understanding of the data and to distil words in to fewer content related categories.

6.5.2 Research design strategy

The following are the different types of research design strategies:

6.5.2.1 Exploratory research

This type of research is a valuable means to ask open questions to discover more information regarding the general nature of the research problem, as well as understanding the precise nature of the problem (Saunders et al., 2012:171). There are a number of ways to conduct exploratory research, such as: a search on the literature, interviewing experts in the subject, and focus group interviews. However, because this type of research is exploratory in nature, interviews are likely to be relatively unstructured. The advantage of this type of research is that it is flexible and adaptable to change. The literature study conducted in chapters 2 to 5 reflects the exploratory phase of the study.

6.5.2.2 Descriptive research

This type of research involves finding answers to the questions: who, what, when, where and how, in order to answer the research questions and objectives (Tustin et al., 2005:86). The objective of descriptive research is to gain an accurate profile of events, persons or situations. It is necessary to have a clear picture of the phenomena on which one wishes to collect data prior to the collection of data. Descriptive research was used in the empirical phase of the study to establish the impact of South African automotive policy changes on the domestic leather industry.

6.5.2.3 Causal research

This type of research is where the researcher investigates whether one variable causes, or determines, the value of another variable. Experimentation is a common method and can be used to measure causality.

A combination of exploratory research via the literature study, and descriptive research via the empirical survey have been used in this study to complement each other. The data collection design will now be discussed in greater detail.

6.5.3 Data collection design

The types and sources of information can be divided in primary and secondary data, which will be discussed further:

6.5.3.1 Primary data

When researchers collect their own data for the purpose of a particular study, that data is called primary data (Bless et al., 2013:184). Primary data may be qualitative or quantitative in nature and is discussed further below.

- Qualitative research is often associated with an interpretive philosophy because researchers need to make sense of the subjective and socially constructed meanings expressed by those who took part in research regarding the phenomenon being studied (Saunders et al., 2012:546). This type of research generates data that are frequently difficult to quantify.

- Quantitative research refers to all primary and secondary data and can be a product of all such research strategies as well as secondary data (Saunders et al., 2012:472). According to Tustin et al. (2005:89), the research findings may then be subjected to mathematical or statistical manipulation to produce broadly representative data of the total population and forecasts of future events under different conditions.

6.5.3.2 Secondary data

Bless et al. (2013:184) defines secondary data as the data collected by other researches either in connection with other research problems, or as part of the usual gathering of social data for a population census. Secondary data includes both qualitative (non-numeric) and quantitative (numeric) data, and are mainly used in both descriptive and explanatory research. Saunders et al. (2012:307) distinguishes secondary data into three main subgroups: documentary, survey based and those compiled from multiple sources.

- Documentary text refers to organisations' databases, organisations' communication, reports, magazines, newspapers, diaries and interview transcripts.
- Documentary non-text refers to television and radio, voice recordings, video recordings, web images and photographs.
- Survey census refers to governments' census of the population.
- Continuous and regular surveys refer to government, family spending, and employee survey attitudes.

- Ad hoc surveys refer to government's surveys, organisation's surveys and academic surveys.
- Multiple source snapshot refers to government's publications, books, journals.
- Multiple sources longitudinal refer to industry's statistics and reports, government's publications, EU's publications, newspaper reports, books, journals.

For purposes of this study, primary qualitative and quantitative data were used via an empirical survey, and secondary documentary data and data compiled from multiple sources were used.

6.6 Developing a sampling plan

A sample refers to a small set of cases, or units, that a researcher selects from a large pool and then generalises to the population (Neuman, 2011:240). Tustin et al. (2005:339-38) classifies the sampling process in to seven steps, however, Saunders et al. (2012:260-291) narrows it down and classify it in to five main steps. These five steps will now be discussed in greater detail.

6.6.1 Define the target population

Bless et al. (2013:164) defines the target population as the set of elements that the research focuses upon. It is essential to describe the target population accurately. For purposes of this study, the target population will consist of: the two major tanneries that manufacture automotive leather and are still in operation; the two tanneries that have recently shut down operations; the 30 other tanneries manufacturing other leather products; the four major sewing plants stitching automotive leather (two still operating in South Africa and two that had relocated to Lesotho in 2015); the five chemical companies who supply the tanneries with specific chemicals; the seven OEMs; and other key industry role-players that have been directly or indirectly involved in the manufacturing of automotive leather under the MIDP and APDP policies, such as: the ATCG, JALI and SHALC.

6.6.2 Sampling frame

A sample frame is the list of all units from which the sample is to be drawn (Bless et al., 2013:165). There are in total two operational tanneries manufacturing automotive leather and two that have shut operations. There are four sewing plants stitching automotive leather (two still operating in South Africa and the two that had relocated to Lesotho in 2015). Since there are a limited number of companies manufacturing automotive leather, for this study, the sample frame will consist of only those companies or role-players involved in the direct manufacturing of automotive leather, or indirectly through other ways in which value is added to the product.

6.6.3 Determine the sampling method

Leedy and Ormrod (2013:207) classify the sampling methods into two broad categories, either probability sampling or non-probability sampling. Probability sampling is when the probability of including each element of the population can be determined. Non-probability sampling is when the probability of including each element of the population in a sample is unknown.

Leedy and Ormrod (2013:207-212) further break down probability sampling procedures into five different approaches:

- Simple random sampling.
- Stratified random sampling.
- Proportionate stratified sampling.
- Cluster sampling.
- Systematic sampling.

Bless et al. (2013:172 – 174) identifies four most common non-probability sampling procedure approaches:

- Convenience or availability sampling
- Purposive or judgemental sampling
- Quota sampling
- Cluster sampling

For purposes of this study, on some elements of the respondent base a census has been done and these include: the two operational automotive tanneries, the four sewing plants and seven OEMs. For the remaining elements of the respondents, such as: the chemical companies and other tanneries manufacturing other leather products, a non-probability sampling method is used. A non-probability purposive, or judgemental sampling approach, was chosen for this study on the remaining elements of the respondent base. This approach is based on the judgement of the researcher regarding the characteristics of a representative sample in order to answer the research questions and objectives (Saunders et al., 2012:287). A sample is chosen on the basis of what the researcher considers to be typical units. According to Bless et al. (2013:172), the strategy is to select units that are judged to be the most common in the population under investigation. Therefore, the two major chemical companies out of the five were selected, and the two major other tanneries manufacturing other leather products out of the 30 have been chosen on purpose because the researcher is soliciting knowledgeable persons of the domestic leather industry.

6.6.4 Sample size

Determining the sample size is a complex issue and according to Bless et al. (2013:174), a researcher's decision about the best sample size depends on three things:

- The degree of accuracy required.
- The degree of variability or diversity in the population.
- The number of different variables to be examined simultaneously in the data analysis.

Because of the limited number of companies and to ensure that the best results are obtained, the two operational and the two non-operational automotive tanneries; the four sewing plants (two still operating in South Africa and the two that had relocated to Lesotho in 2015); the seven OEMs; the two major chemical companies; the two major other tanneries manufacturing other leather products; and one representative from the ATCG and JALI respectively have been included. A total respondent base of N = 21.

6.6.5 Execute the sampling procedure

The researcher would conduct face-to-face interviews with all available respondents where they would be given a questionnaire to complete. To all other unavailable participants, the questionnaire would be sent electronically and a follow up would be done to ensure that participants complete the survey and return it to the researcher so that maximum data can be obtained.

6.7 Construct and pre-test the questionnaire

A questionnaire will be used as an instrument to collect data for this study. Saunders et al. (2012:416) defines the questionnaire as a general term to include all methods of data collection in which each person is asked to respond to the same set of questions in a predetermined order. According to Tustin et al. (2005:415), the purpose of a questionnaire is designed to achieve four related goals:

- To maximise the relevance and accuracy of the data collected.
- To secure the participation and cooperation of target respondents.
- To facilitate the collection and analysis of the data.
- To support analysis goals.

The questionnaire used in this study is attached in Annexure A. Saunders et al. (2012:417) highlights that the questionnaire is a critical component of the research

process, because it needs to ensure that the precise data needed to answer the research question(s) and objectives are included, as it is unlikely that the researcher will have more than one opportunity to collect the data. The design of the questionnaire is also very important because it will affect the response rate, and the reliability and validity of the data collected. The formulation of the questions in the questionnaire was developed clearly and unambiguously, and is directly related to the research problem and objectives. All respondents will receive the same questionnaire but will only answer the questions that apply to their respective business unit. All instructions have been included to direct respondents to the relevant sections of the questionnaire. The questionnaire structure and content will now be discussed.

6.7.1 Question sequence

When questions are structured in a questionnaire, the sequence of questions is in a predetermined order that the interviewer will read to respondents. In this way, all respondents are asked the same questions in exactly the same order. Saunders et al. (2012:444) highlights that the layout of the questionnaire is very important and that the questions should be in a logical order to improve the standard of interviewing and make the questionnaire easy to read and answer. Tustin et al. (2005:391) points out that the first question should be simple and interesting in order to put the respondent at ease and to motivate the respondent to answer the rest of the questions. In this regard, the first question was developed to be a simple question and the questions followed logically. The funnel approach method was adopted, which starts with more general questions and then moved to more specific, sensitive questions (Bless et al., 2013:206). Section A of the questionnaire deals with general questions that all respondents will answer, section B deals with questions that have been formulated regarding specific company information and each business unit will only answer questions that are related to their business unit, and section C deals with questions that have been formulated regarding government policy that all respondents will answer.

6.7.2 Question format

Cooper and Schindler (2011:325) identify two formats of questions, whilst Tustin et al. (2005:393) as well as Saunders et al. (2012:374) identify three formats of questions which are discussed next:

- Unstructured questions are informal in nature. There is no predetermined set of questions. Questions are open ended in order to gather a richer insight into a specific topic that the researcher wants to explore. The respondent has the liberty to talk freely about events, behaviours and beliefs in relation to the topic area. No unstructured questions were used in this study.

- Semi-structured questions are utilised most commonly in business-to-business marketing research where the idea is to accommodate a large number of different responses from companies. They are also used when responses cannot be anticipated. The order of the questions may vary depending on the responses and flow of conversation. This type of questions is largely limited to off-line and online in-depth interviews and focus groups (Tustin et al., 2005:393, 394). No semi-structured questions were used in this study.

- Structured questions are a predetermined set of questions that have close-and open-ended responses. Questionnaires are used that have structured questions and/or unstructured responses in marketing research. For structured pre-formulated questions, responses/answers can either be structured (pre-formulated) or unstructured (post-formulated). Structured responses to structured questions are pre-determined and are also known as closed-ended responses; typical examples thereof include dichotomous, multiple-choice or scaled responses (Tustin et al., 2005:394). Structured questions could also permeate into unstructured or open-ended responses and a typical example is where a structured question contains an alternative which states: “Other” (please specify)”. Structured pre-formulated questions

were used in the questionnaire for this study and the different types are explained below.

6.7.2.1 Dichotomous response

These types of questions allow for the most basic form of closed-ended responses from participants because it has only two possible responses, namely Yes/No. The participant's response must be either one of the two options for it to be valid (Tustin et al., 2005:398). Dichotomous questions generate nominal data and are much easier to analyse (Cooper and Schindler, 2011:330), but does not provide rich data that can be used in inferential statistical analyses. The questionnaire in this study contains 11 dichotomous questions, namely 5, 8, 10, 14, 17, 18, 19, 23, 24, 27 and 28 (see Annexure A where the survey instrument is attached).

6.7.2.2 Multiple-choice single response questions

According to Cooper and Schindler (2011:330), multiple choice questions offer the respondent more than two alternatives that the respondent can select from, however, only one choice may be selected. The response alternatives should include the set of all possible choices. The general guideline is to list all the most important alternatives and include an alternative that says "Other (please specify)" as a safeguard to provide the respondent with an acceptable alternative if all the listed options do not fit the criteria (Cooper and Schindler, 2011:330). Multiple choice questions can be efficient, easy to answer and less time consuming. In this study, the questionnaire contains five multiple-choice questions, namely 4, 7, 9, 12 and 16.

6.7.2.3 Multiple-choice multiple response questions

As highlighted above, multiple-choice questions offer the respondent more than two alternatives to choose from. Multiple-choice multiple response questions mean that respondents can choose more than a single option. In this study, the questionnaire contains one multiple-choice multiple response question, namely 9.

6.7.2.4 Ranking questions

Ranking questions are used when a set of possibilities is offered and the participant must assess the importance of each of them relative to the others (Bless et al., 2013:210). Rank order questions are relative because respondents are asked to measure one option against another in terms of their criteria. In this study, the questionnaire contains no ranking questions.

6.7.2.5 Scaled questions

Scaled questions are often used to collect opinion data. The Likert scale is one of the most frequently used variations of summated rating scales (Saunders et al., 2012:436). A primary advantage of scaled-responses is that scaling permits the measurement of the intensity of respondents' answers to multiple-choice responses (Tustin et al., 2005:400). The respondent is asked how strongly they agree or disagree with a statement or series of statements. The respondent will answer these questions that will reveal their perceptions, opinions and attitude towards the subject at hand. In this study, the questionnaire contains nine scaled response questions, namely 11, 13, 20, 21, 25, 26, 29, 30 and 31.

6.7.2.6 Open-ended questions

These types of questions allow respondents to provide answers in their own way and in their own words, also referred to as free-response questions. Open questions are more of an exploratory nature because the researcher wants a much more detailed response. These types of questions are used widely in in-depth and semi-structured interviews. In this study, the questionnaire contains eight open ended questions, namely 1, 2, 3, 6, 15, 22, 32 and 33.

6.7.2.7 Open- and closed-ended questions

These types of questions are a mixture of open-ended and closed-ended questions. An example is a multiple-choice question that has an option that states “Other (Please specify)”. This additional option allows the respondent to respond in their own words that is not limited to the options listed. In this study, the questionnaire contains ten such questions, namely 7, 9, 11, 13, 17, 20, 21, 24, 28 and 31.

The format of the questions used in the questionnaire for this study is illustrated in Table 6.1.

Table 6.1: Format of questions.

Types of questions	Questions in questionnaire
• Dichotomous questions	Questions: 5, 8, 10, 14, 17, 18, 19, 23, 24, 27 and 28.
• Multiple-choice single response	Questions: 4, 7, 9 and 12 and 16.
• Multiple-choice multiple response questions	Question: 9.
• Ranking questions	Question: Not used.
• Scaled questions	Questions: 11, 13, 20, 21, 25, 26, 29, 30 and 31.
• Open-ended questions	Questions: 1, 2, 3, 6, 15, 22, 32 and 33.
• Open- and closed-ended questions	Questions: 7, 9, 11, 12, 13, 17, 20, 21, 24, 28 and 31.

As revealed in table 6.1, some questions have a double classification such as questions 7, 9, 11, 12, 13, 17, 20, 21, 24, 28 and 31.

6.7.3 Questionnaire instructions

According to Cooper and Schindler (2011:343), instructions regarding the completion of the questionnaire attempt to ensure that all participants are treated equally, thus avoiding building error into the results. Clarity and courtesy are two fundamental principles for the foundation of good instructions. Instruction language needs to be unfailingly simple and polite, and in a self-administrated questionnaire, instructions must be contained within the survey instrument (Cooper and Schindler, 2011:343). The questionnaire used in this study contained instructions within the questionnaire itself.

6.7.4 Physical characteristics of the questionnaire

The layout and appearance of the questionnaire is of critical importance and must be regarded as such. According to Saunders et al. (2012:444), the questionnaire should be designed to make reading questions and filling in responses easy, as well as be attractive to encourage the respondent to complete it and to return it, whilst not appearing too long. In this study, the questionnaire was divided into three parts to make it more structured and to simplify the analysis of data. The following sections can be identified in the questionnaire:

- Section A: Questions 1 to 4 covers more general information.
- Section B: Questions 5 to 22 deals with company specific information.
- Section C: Questions 23 to 33 deals with government policy of the MIDP and the APDP and contains measurement questions that the respondent can elucidate on.

The questionnaire concluded with a note of appreciation to the respondent for participating, and contact details for the return of the questionnaires.

6.7.5 Pilot testing

Pre-testing the survey instrument is the final step in improving the survey results. Cooper and Schindler (2011:347) highlight several reasons why a questionnaire should be pre-tested.

- Discovering ways that will increase participant interest.
- Keep participants motivated and engaged in completing the questionnaire.
- Discovering question content, wording and sequencing problems.
- Exploring methods that will improve the overall quality of the survey data.

Therefore, a pilot test was performed on one respondent who did not form part of the target population, but has knowledge and a link to the automotive industry through the research he had conducted for his post graduate Doctoral degree. This was done in order to determine weaknesses within the survey instrument and to improve on these weaknesses in order to finalise the survey instrument.

6.8 Reliability and validity of the research for this study

Reliability is concerned with the consistency of measures. An instrument that produces different scores every time it is used to measure a constant value has a low reliability, and if it produces the same score many times it is regarded as having a high reliability. According to Bless et al. (2013:222), in most cases, the reliability of measurement is the degree to which that instrument produces equivalent results for repeated trials. Cooper and Schindler (2011:283) note that reliability is a necessary contributor to validity, but is not a sufficient condition for validity. This means that if a measure cannot be reliable, it cannot be valid, and reliable measures are not always valid.

Validity refers to the extent to which a test measures what the researcher actually wishes to measure (Cooper and Schindler, 2011:280). There are different forms of validity, such as:

- Content validity – is the extent to which it provides adequate coverage of the investigative questions guiding the study (Cooper and Schindler, 2011:281). Content validity was used for this study as the instrument contains a representative sample of the universe of subject matter. It must be noted that content validity was used when the pilot test was done.

- Criterion-related validity – refers to whether an instrument measures what it is expected to measure by comparing it to another measure that is known to be valid (Bless et al., 2013:231).

- Construct validity – is the extent to which scores on an instrument reflect the desired construct rather than some other construct (Bless et al., 2013:233).

- Face validity – is concerned with the way the instrument appears to the participant, it is important that an instrument be tailored to the needs of the participants for whom it is intended (Bless et al., 2013:234).

6.8.1 Data preparation

Data preparation is the activity that ensures the accuracy of the data and their conversion from raw form to reduced and classified forms that are more appropriate for analysis (Cooper and Schindler, 2011:402). The three forms of data preparation techniques include data editing, data coding and data capturing. Each of these will be discussed next.

6.8.1.1 Data editing

Data editing is the customary first step in the analysis of raw data. Editing detects errors and omissions, corrects them when possible, and certifies that maximum data quality standards are achieved. Cooper and Schindler (2011:402) state that an editor's purpose is to ensure that data is:

- Accurate.
- Consistent with the intent of the question and other information in the survey.
- Uniformly entered.
- Complete.
- Arranged to simplify coding and tabulation.

In this study, all questionnaires that were completed by participants were inspected to ensure that they answered the correct sections and to ensure all the questions were answered. If any question had not been answered by error, the researcher followed-up with that specific participant where the question was asked again. The answer was then captured to ensure the questionnaire was completed accurately.

6.8.1.2 Data coding

Coding incorporates assigning numbers, or other symbols, to answers so that responses can be grouped into a limited number of categories. Some of the questions in the questionnaire have been coded.

6.8.1.3 Data capturing

Data was captured using the Statistical Package for Social Sciences (SPSS) and excel computer programmes.

The following section will discuss step 8 of the research process, namely data analysis.

6.9 Data analysis

According to Tustin et al. (2005:102), the aim of data analysis is to draw conclusions from the mass of collected data. Cooper and Schindler (2011:90) note that data analysis is usually a process that involves reducing the gathered data to a manageable size, developing summaries, identifying patterns and to apply statistical

techniques. The two types of statistical data analysis techniques that were used for this study are descriptive and inferential, and will be discussed next.

6.9.1 Descriptive statistics

Saunders et al. (2012:502) defines descriptive statistics as the ability of the researcher to describe and compare variables numerically. Statistics are used to describe a variable focus on two aspects, namely central tendency, and distribution and variability. The term central tendency of a distribution describes a value that gives a general description of the bulk of the data, in essence, an idea of the location of all the scores (Bless et al., 2013:254). According to Saunders et al. (2012:503), the three methods most used in business research for measuring the central tendency are:

- Mode – the value that occurs most frequently.
- Median – the middle value or mid-point after the data has been ranked.
- Mean – the value, often known as the average, which includes all data values in its calculation.

Bless et al. (2013:261-264) highlights the three measures that are used to describe the spread of a distribution (the dispersion), they are:

- Range – refers to the difference between the highest and the lowest score in the distribution.
- Variance – refers to the average of the squared deviations from the mean of the distribution.
- Standard deviation – is the mean of the individual deviations or distances of each score from the distribution mean. It is the square root of the variance.

According to Saunders et al. (2012:504), the most frequently used descriptive statistics are means and percentages that include all data values in its calculation. Once all the data has been gathered, frequency tables are used to display the

different response categories of the variable, as well as the frequency of respondents for every category in the table. Cross tabulation is a powerful tool that researchers use to comprehend how two variables are related to each other. Cooper and Schindler (2011:444) define cross tabulation as a technique for comparing data from two or more categorical variables. The technique uses tables having rows and columns that correspond to the level or code values of each variable's categories.

6.9.2 Inferential statistics

The second type of statistics that a researcher can use to analyse data is inferential statistics. Whereas descriptive statistics are simple procedures for condensing information about a set of measures, inferential statistics refer to techniques for making statements and decisions on the basis of numerical information relating samples to populations (Bless et al., 2013:264).

There are two main groups of statistical significance tests, the first is parametric statistics and the second is non-parametric statistics. Parametric statistics are used with numerical data, whilst non-parametric statistics are designed to be used when the researcher's data is not normally distributed (Saunders et al., 2012:508). The following non-parametric tests that were used for this study to test for hypotheses will be discussed below.

- The Pearson Chi-square test – tests whether the observed or actual frequency of a phenomenon corresponds to the frequency that should have been recorded, in other words, what was expected of the hypothesis under study was correct (Bless et al., 2013:296). It is based on a comparison between observed frequencies and expected frequencies, and is even more valuable for nominal and ordinal data (Cooper and Schindler, 2011:472).

- Mann-Whitney test – is applied to two independent and uncorrelated groups, which might, or might not, be of the same size (Saunders et al., 2012:509). It uses an ordinal scale of measurement and compares the order, or rank, of the

data in the two groups with the purpose of assessing whether any differences in the ranks can be explained by chance factors alone (Bless et al., 2013:301, 302).

- Kruskal-Wallis test – is a very useful test because of two main characteristics. Firstly, it is a one-way analysis of variance by ranks, meaning it has no restrictive prerequisites concerning population distribution, such as normality or homogeneity of the variances, and requires an ordinal scale of measurement. Secondly, it is considered an extension of the Mann-Whitney test since it essentially deals with the same type of problems, but for more than two independent groups (Bless et al., 2013:303).

Descriptive research designs often conclude with hypothesis testing. In classical tests of significance, two forms of hypotheses are used. The null hypothesis and alternative hypothesis is used for testing. The null hypothesis is a statement that indicates that no difference or no correlation exists between the parameter and the statistic it is being compared to, whilst the alternate hypothesis holds that there has been a change (Cooper and Schindler, 2011:456). Testing a hypothesis means reaching a conclusion on the significance, or the lack thereof, regarding the difference between groups, and rejecting the statement of the hypothesis as being incorrect if it contradicts this conclusion.

Testing the probability of a pattern, such as a relationship between variables occurring by chance alone, is known as significance testing (Saunders et al., 2012:512). The significance level can be described as the probability value that determines the boundary between accepting and rejecting the hypothesis. The p-value refers to the probability value, which is the chance of occurrence of an event. For most applications, the chosen significance level is 0.05. If the probability of the test statistic is very low, <0.05 or lower, then the test indicates that there is a statistically significant relationship, which means rejecting the null hypothesis and accepting the hypothesis.

Because the researcher cannot make any statement about the sample with absolute certainty, the likelihood of errors occurring must be taken into consideration. A Type I error is made when the null hypothesis is rejected even though it is, in fact, true. The probability of committing this error is given by the level of significance. A Type II error involves not rejecting the null hypothesis when it is actually false (Bless et al., 2013:278).

Once all the gathered data has been examined and analysed through descriptive and inferential statistics, the researcher will be able to draw conclusions from the data obtained in this study.

6.10 Presentation of research findings

This is the final step of the research process followed throughout this study. In this stage of the research process, the researcher will prepare a report and transmit the findings and recommendations. The results may be communicated through several avenues, such as: conference calls, letters, written report, oral presentation or a combination of any of these methods (Cooper and Schindler, 2011:90). For purposes of this study, the data findings, conclusions and recommendations will be presented in written format as part of this dissertation.

6.11 Summary

Chapter 6 focused on the research methodology that was used for the purpose of this study to determine the impact of South African automotive policy changes on the domestic leather industry. In this chapter steps 4 to 7 of the research process have been discussed in great detail. The research philosophy and the research approach were explained. The research design was defined and then the components within the research design were explained. The sampling procedure and data collection were discussed and the research instrument was designed. The chapter then elaborated on the data analysis techniques, as well as a discussion on the

presentation of findings to conclude the chapter. In the following chapter, the data analysis and interpretation of the study will be discussed.

Chapter 7

Data Analysis and Interpretation

7.1 Introduction

In this chapter, the results obtained from the empirical research on the impact of South African automotive policy changes on the domestic leather industry will be analysed. A mixed methods research approach using both qualitative and quantitative formats of investigation was followed. A total of 21 key role-players within the domestic automotive leather industry were identified. The researcher started this study in 2013 and compiled a total of 21 active role-players. In 2014, two major tanneries that manufacture automotive leather had closed down, therefore, decreasing the target population from 21 to 19. However, these two automotive tanneries were contacted and they agreed to participate in the study as they were winding down their operations. All the initial role-players were contacted and invited to take part in this study, however, the researcher was only able to interview 19 role-players as two active leather sewing plants refused to participate in the study, therefore, making the size 19. The questionnaire consisted of sections A, B and C. Section A required all respondents to answer these questions and dealt with the general demographic information of the company. Section B dealt with company specific information and required respondents to answer the questions relevant to their business unit only. Section C dealt with information on government policy and required all respondents to answer these questions.

The responses to the questions as analysed below relate to, and aim to, answer the primary and secondary objectives of the study. The primary objective of this study was to analyse the impact of South African automotive policy changes on the domestic leather industry. The secondary objectives of this study were: to research the supply chain used in the South African automotive industry with special reference to the South African leather manufacturers; to investigate the impact of the discontinuation of the MIDP policy on the role-players of the South African

automotive leather industry; to assess the current competitive situation in the South African leather market; to research the possible impact of the APDP policy on the South African leather manufacturing industry; and to contribute to the field of study by identifying areas for further research.

Descriptive and inferential analyses were performed to assess the primary and secondary objectives of this study. The objective of inferential analysis was to determine the most significant relationships and differences between variables. The data analysis, approach, philosophy and interpretation processes were outlined in chapter 6. The research results will now be analysed starting with descriptive statistics, following the same sequence than the questions of the questionnaire.

7.2 Section A of the questionnaire

Section A of the questionnaire, covering **questions 1 to 4**, dealt with respondents' general demographic information about the company they worked for, and included questions regarding the establishment date and provincial location of the company. This was done to make respondents feel more relaxed and at ease, and then the questionnaire followed up with more specific and detailed questions. All respondents had to answer these questions. Table 7.1 reveal the breakdown of the 19 respondents that took part in the study.

Table 7.1: Breakdown of respondents of the study.

Respondents	N	%
Component manufacturers (automotive leather tanneries and sewing plants)	6	31.58
Stakeholders (independent units, chemical companies and tanneries manufacturing other leather products)	6	31.58
OEMs (vehicle manufacturers)	7	36.84
Total	**19**	**100**

The automotive tanneries and sewing plants are referred to as the component manufacturers because they manufacture predominantly for the automotive industry. The researcher obtained a 100% response rate from the two active automotive tanneries and the two that has shut down operations. The researcher then obtained a 50% response rate from the automotive sewing plants. In total, the researcher obtained six responses out of a possible eight, from the direct automotive leather manufacturers, representing a 75% response rate. The two sewing plants that did not participate indicated that they perceived the study to be of no value to them and that the APDP has little, to no, value on their business unit and, therefore, they are not interested in the study. As such, the comments of these two sewing plants and the reason for not participating in the research should be noted. It is a direct response from their side with regards to the current government's incentive regime and policy relating to their industry. In fact, it confirms their disinterest in the APDP and also provides an indication that they would rather prefer other parties to influence their destiny than aiming to form part of the current automotive dispensation.

Tanneries manufacturing other leather products, the chemical plants and the independent units are referred to as the stakeholders of the domestic leather industry. The researcher obtained a 100% response rate from the stakeholders, which is an excellent response rate. Their perceptions and views represent their interest in their business units in particular, and provide invaluable industry knowledge on the impact of the new APDP policy regime in comparison to the MIDP with regards to leather manufacturing in South Africa.

The Original Equipment Manufacturers/vehicle manufacturers are referred to as the OEMs. The seven OEMs with manufacturing facilities operating in South Africa consist of the three European-based OEMs, the two Japanese-based OEMs and the two USA-based OEMs. The researcher obtained a 100% response rate in terms of the seven active OEMs operating in South Africa. The OEMs, as part of the customer base, are a prime part of the survey.

The main conclusions derived from this section are that in South Africa the stakeholders have been here in excess of ten years; the component manufacturers in excess of 15 years; and some OEMs have been here from the very existence of the automotive industry. All the OEMs operating in South Africa have been here in excess of 50 years. Because of the considerable amount of time spent operating in South Africa under the different policy regimes, the views and responses obtained indicate the best possible answers to the questions that were asked. The next conclusion that is derived from this section of the questionnaire is that Gauteng, Kwa-Zulu Natal and the Eastern Cape represents the three primary locations for the manufacturers, the main reason being that the suppliers are in close proximity of their customers. It is worth noting that two active leather sewing plants have relocated to Lesotho from South Africa mainly for cost and labour reasons. This indicates that of the four sewing plants, two were not interested in the survey and had a negative attitude towards the APDP. Although the target markets and customer base remained the same, lower labour costs and reliability of supply were the main considerations for the relocation of the two sewing plants to Lesotho in order to comply with domestic OEMs' JIT and pricing principles.

7.3 Section B of the questionnaire

In this section, the **component manufacturers** that consist of the **two active and two non-active automotive tanneries and the two active and willing to co-operate sewing plants** were required to answer **questions 5 – 13**. The **stakeholders**, only the **two chemical plants** and the **two tanneries** manufacturing other leather products were required to answer **questions 5 – 13**. The **two independent units** that are categorised as part of the stakeholders **were not required** to answer any questions in this section because they are not representing individual companies and they are only conducting consulting services. Therefore, a **total of ten respondents** were required to answer **questions 5 – 13**. In this section, the OEMs had to answer **questions 14 – 22** only. The results per question will now be elucidated:

Question 5 was used to determine whether the respondents' company was either a majority South African owned company or a majority foreign owned company. Figure 7.1 reveal the ownership level of the ten respondents.

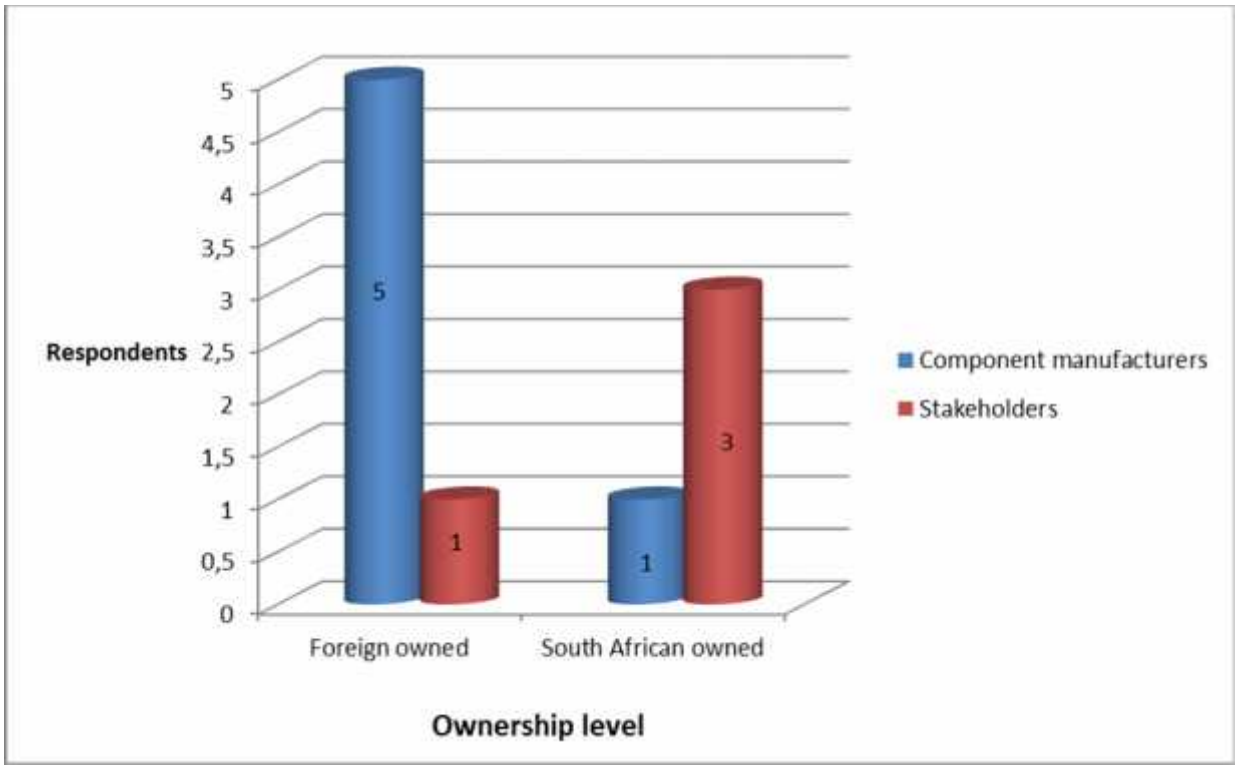

Figure 7.1: Ownership level (Component manufacturers and stakeholders)

Figure 7.1 revealed that the two active automotive tanneries are foreign owned and the two non-active automotive tanneries were also foreign owned having operations in South Africa. Of the two active automotive tanneries, one is a German owned company and the South African operation is its first outside Germany, the other is a USA owned company. Even though these tanneries were also dependent on the MIDP subsidies, the fact that the parent companies are based in the regions where the OEMs are located, provides an inherent benefit for these tanneries so that they were able to adapt to the reduced benefits under the APDP. The above reiterates the shadow strategy by component manufacturers under the MIDP to follow the investments of their main customers, the OEMs, in order to capitalise on the MIDP benefits, which were based on the local content of the export value. Under the APDP, an important part of the 2020 vision is the deepening and broadening of the component supply base in the country. Localisation initiatives, such as the Automotive Supply Chain Competitiveness Initiative (ASCCI) and the OEM

Purchasing Council, as described in chapter 4, aim to continue with this shadow strategy notion under the APDP.

Regarding the two non-active automotive tanneries, even though both were also foreign owned, their parent companies were not located in the regions where the OEMs are based, therefore, there was no inherent benefit that could be obtained. These tanneries were more heavily dependent on the MIDP subsidies to sustain its operations in South Africa and when the news of the change in policy to the APDP was announced, these tanneries were not able to adapt so easily and, unfortunately, when the APDP was implemented, these tanneries had to shut down operations. Thus, it can be construed as a negative fall-out owing to the implementation of the APDP.

Figure 7.1 further revealed that only one sewing plant is foreign owned whilst the other is South African owned. Both these sewing plants were heavily dependent on the MIDP subsidies to sustain and grow their business. The foreign owned sewing plant has lost a considerable amount of business but is still supplying one of the OEMs, however, this OEM is only a moderate user of automotive leather. The South African owned sewing plant is now relocating to Lesotho to sustain its business because they will save considerably on labour costs and this will in no way affect the reliability of supply of its product. Another main reason provided is that because of the on-going labour strikes within the industry and its impact on reliability of supply, a lot of European companies are looking for alternatives. The European companies are putting pressure on the exporting companies to have an alternate back-up in a different country, either in Southern Africa or Europe, hence, the move to Lesotho.

Figure 7.1 further revealed that only one chemical plant was foreign owned, whilst the other chemical plant and two tanneries manufacturing other leather products was South African owned. Even though this question did not refer to the OEMs, it must be noted that all seven OEMs operating in South Africa are foreign owned.

Question 6 was used to determine the current employment levels of the component manufacturers and stakeholders in South Africa. The current combined employment levels of the two active automotive tanneries are in excess of 1 000 employees. The two non-active tanneries' combined employment levels are below 100 employees. The reason being is that they are still wrapping up their operations in South Africa and will drop to zero employees upon completion. This clearly indicates that being a subsidiary of a parent company that is in close proximity of their customers does help even under the changed regime to the APDP. The current combined employment levels of the two sewing plants are in excess of 400 employees; the two chemical plants are in excess of 150 employees; and the two tanneries manufacturing other leather products are in excess of 200 employees, making them smaller players in the field regarding employment opportunities.

After establishing the current employment levels, **Question 7** was posed with the purpose of determining whether there has been a positive change in employment levels under the MIDP or not. Figure 7.2 reveal the results of the ten respondents.

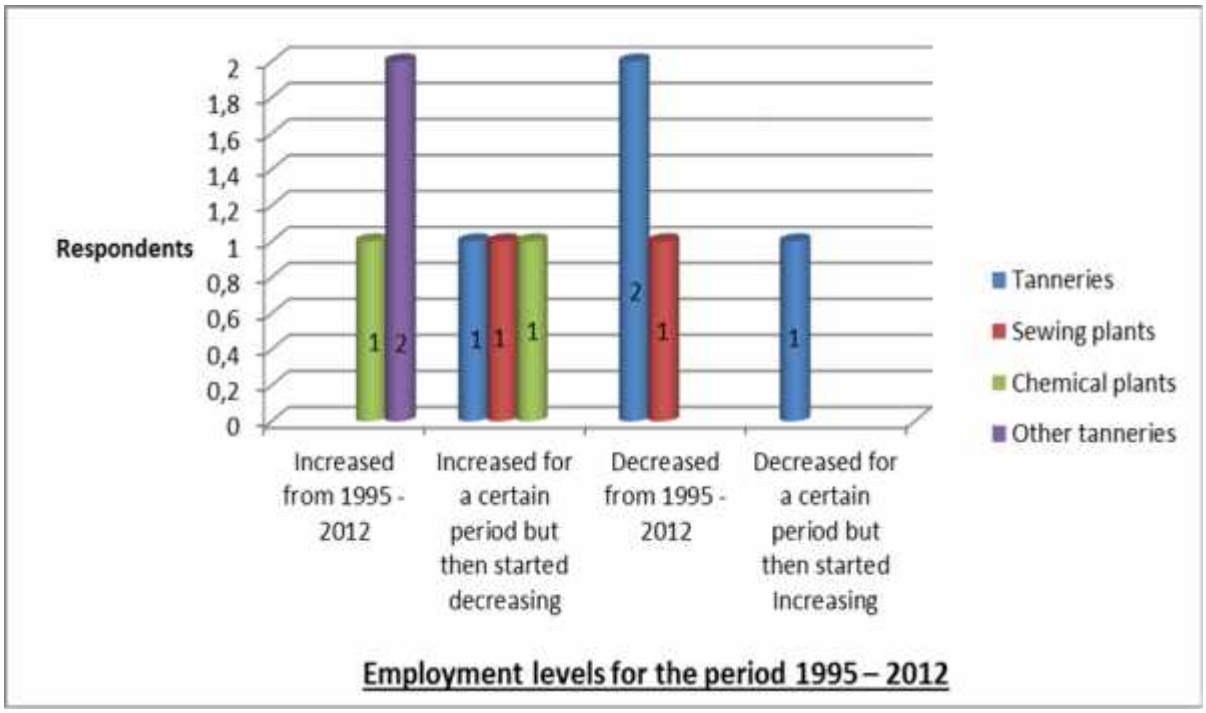

Figure 7.2: Employment levels for the period 1995 – 2012, the duration of the MIDP (Component manufacturers and stakeholders)

Figure 7.2 revealed that the two active tanneries manufacturing automotive leather had an inverse relationship regarding their employment figures. One tannery started increasing the number of workers for a certain period but then started laying off workers, whereas the other tannery first decreased the amount of workers and then later started to employ more workers. The one active tannery stated that the reason for the initial increase in employment, followed by a decrease, is that initially under the MIDP business was flourishing, but in 2009 they started losing contracts owing to the impact of the global financial crisis, the strikes in 2010 that crippled their business, as well as the pending implementation of the APDP in 2013. The other active tannery stated that the initial decrease in employment, followed by an increase, is that they had to diversify their business operations in order to focus on manufacturing other leather products and not only automotive leather, and then started selling material into other groups (a typical related-diversification strategy). Both active tanneries have stated that the high prices of raw hides and skins, which

is the source material for their businesses, have made their business operations more vulnerable.

Figure 7.2 further revealed that the two non-active tanneries' employment levels have decreased for the period 1995 – 2012. One tannery's reasons are that the announcement of the termination of the MIDP and moving on to the APDP made the business unprofitable because their business was 100% export focused and eventually the company's foreign investor decided to close business operations. This can be seen as a direct result of the window of opportunity closing with the demise of the MIDP. The other tannery also complained about the high prices of source material (raw hides and skins), which impacted their business negatively. However, it must be cautioned that both these tanneries that closed down could have been impacted by other factors that include aspects, such as poor management decisions or other external related issues not related to the automotive policy regime.

Figure 7.2 further revealed that one sewing plant stated that their employment levels for the period 1995 – 2012 had increased for a certain period but then started decreasing. The reason provided is that the market conditions had changed. Most of the global outsourcing business has moved to overseas markets, which can supply main automotive markets at a much cheaper price because of the close proximity, therefore, with lower logistical costs. The other sewing plant stated that their employment levels had decreased over the period and this was owing to the termination of the MIDP and move to the APDP, because they were heavily dependent on the MIDP subsidies. They concurred that their business model was 100% export focused and that they have lost major contracts, making business unprofitable because of the change from the MIDP to the APDP and the difference in financial benefits under the new programme.

Figure 7.2 further revealed that one chemical plant stated that their employment levels for the period 1995 – 2012 have increased. The reasons they provided are that both policy programmes, the MIDP and the APDP, have no direct effect on them but due to their synergy with the automotive sector they benefited indirectly. They

have also increased market penetration to diversify into different markets. The other chemical plant indicated that their employment levels have increased for a certain period but then started decreasing. They have stated that although the MIDP and the APDP had no direct impact on them, the domestic tanneries that they supply constitutes a large portion of their business and given that two tanneries have shut operations with a resultant decline in demand, a significant portion of their business has been affected. This is an illustration of the indirect impact of the MIDP and the APDP on the downstream automotive supply chain.

Figure 7.2 finally revealed that both tanneries manufacturing other leather products pointed out that their employment levels for the period 1995 – 2012 have increased. The reasons they provided are that they have diversified their business operations, products and markets. They were not heavily dependent on the MIDP for business, therefore, the MIDP had a low impact on them and there was a small benefit that they received indirectly due to their synergy with the automotive sector. They also indicated that the APDP has no direct impact on them and provides no direct benefit at all, however, there is a small benefit indirectly obtained due to their synergy with the automotive sector. It must be stated that a common thread in the reasons for the survival of the sewing plants, tanneries and chemical plants, mentioned above, is the implementation of a diversification strategy, as well as a renewed focus on their cost structures in order to remain internationally competitive with their products in the global automotive supply chain.

As highlighted in chapter 2, one of the objectives of the MIDP was to stabilise long-term employment levels in the industry. In this regard, all four automotive tanneries and both sewing plants were heavily dependent on the MIDP subsidies to sustain its business operations. As stated in chapter 4, stitched leather seat parts were one of the best performing components being exported under the MIDP, and the automotive tanneries and sewing plants employment levels increased because they benefited from the export growth under the MIDP. The MIDP has been a success in sustaining employment levels for the automotive leather manufacturers who were heavily dependent on the MIDP subsidies. Because of the announcement that the APDP will

replace the MIDP in 2013, the two automotive tanneries started losing business because they were not able to take advantage from the APDP due to the lower benefits, under the APDP compared to the MIDP for the final eligible automotive leather products.

Question 8 dealt with whether there has been a change in the major products manufactured/assembled from 1995 - 2012. Figure 7.3 reveal the results of the ten respondents.

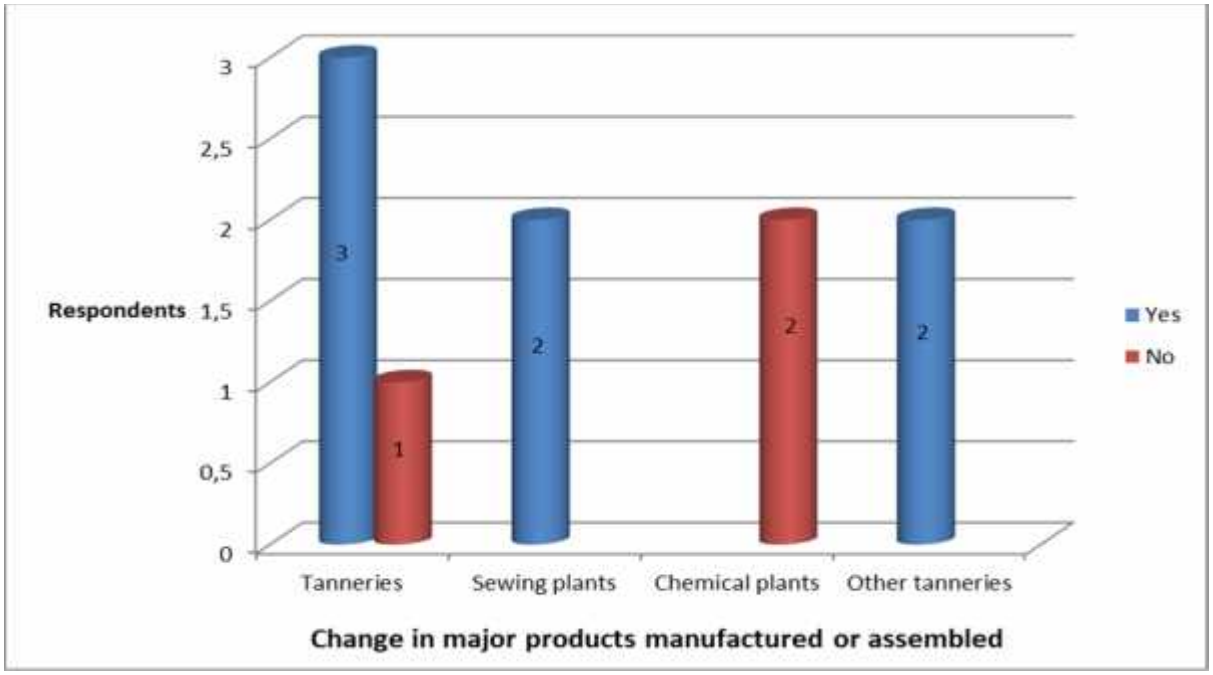

Figure 7.3: Indication of whether there has been a change in the major products manufactured or assembled by the company from 1995 to 2012

Figure 7.3 revealed that three automotive tanneries indicated that there has been a change in the major products manufactured or assembled by their companies. These three tanneries stated that the change varied from a moderate to a high change in the range of products manufactured. Both the sewing plants indicated that there has been a change in the major products manufactured or assembled by their companies and that the change also varied from moderate to high. The automotive tanneries and sewing plants that have had changes to their major products stated that this

related to volume growth in the automotive industry under the MIDP. As highlighted in chapter 1, related input industries, such as leather, also benefited from growth in the automotive industry and, therefore, a shift occurred to focus more on manufacturing for the automotive industry rather than footwear in order to capitalise on the MIDP subsidies. One active automotive tannery stated that there has been no change to their products manufactured or assembled. A reason for this is that this automotive tannery only started operations after the MIDP was implemented and, therefore, the purpose, from the start, was to focus on manufacturing for the automotive industry.

The two chemical companies stated that they have not had a change in their products manufactured or assembled. They rely on the tanneries for business but they are also supplying the mother companies operating worldwide. The two tanneries manufacturing other leather products stated that there had been a change in their range of products manufactured or assembled. These tanneries have indicated that the change has been moderate to high and that the focus had moved from footwear and furniture to other consumables, such as leather belts, gloves and associated products, thus extending the range of leather products being manufactured.

Question 9 was used to indicate all the customers for the respondent's supply chain. Figure 7.4 reveal the results of the customers of the ten respondents.

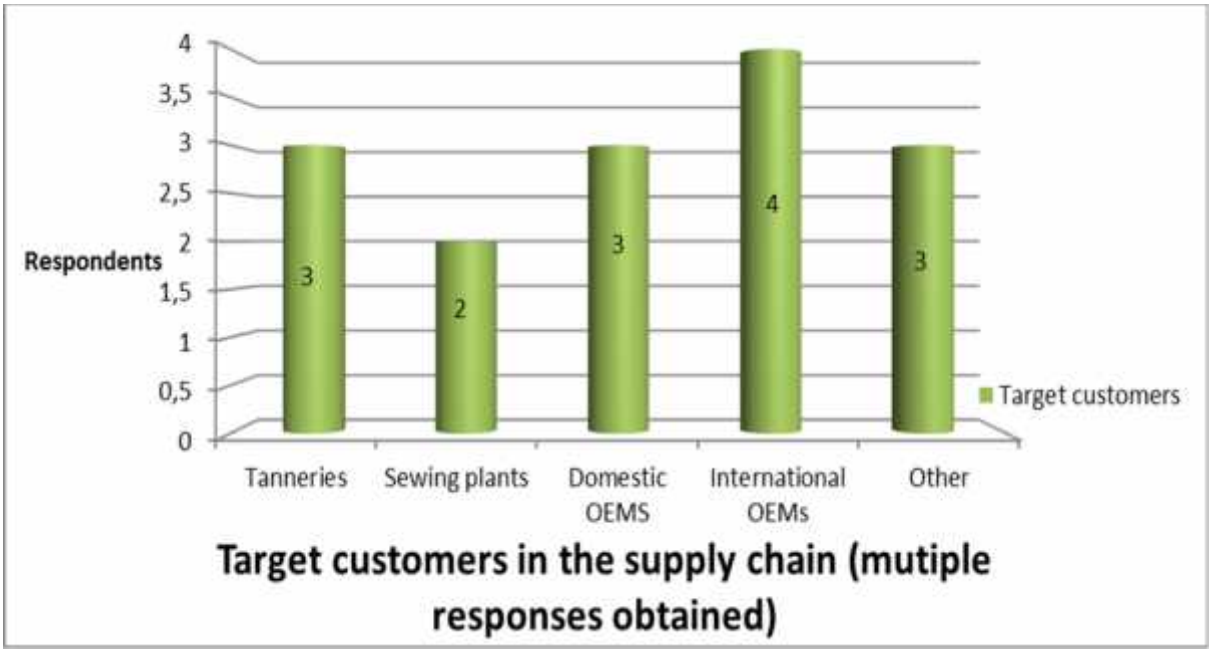

Figure 7.4: Target customers for which goods are being supplied

Figure 7.4 revealed the customers of the respondents. For this question, the results show more than ten customers because some respondents are supplying more than one customer. The two active automotive tanneries are, and the two inactive automotive tanneries were, predominantly supplying the domestic sewing plants, domestic OEMs, international OEMs, and one current active automotive tannery is supplying some of its products to an alternate customer. The sewing plants are supplying only the domestic OEMs and the international OEMs. The chemical companies are supplying only the tanneries with their products. The tanneries manufacturing other leather products are supplying the domestic automotive tanneries with some of their products, such as wet blue hides, but they predominantly supply their other customers specific to their business.

The target customers for all the respondents are directly or indirectly linked in some way to the automotive industry that developed into a highly successful supply chain under the MIDP. As highlighted in chapter 4, the domestic automotive industry accounted for 11.7% of South Africa's total exports and 12.1% of the country's total imports in 2014. It further establishes inter-industry links, and is closely tied with

other manufacturing sub-sectors, such as: aluminium, leather, textiles, stainless steel, and plastics, amongst others.

Question 10 was used to determine whether there has been a change in the target customers/markets during the implementation of the MIDP (1995 to 2012). Figure 7.5 reveal the results of the ten respondents.

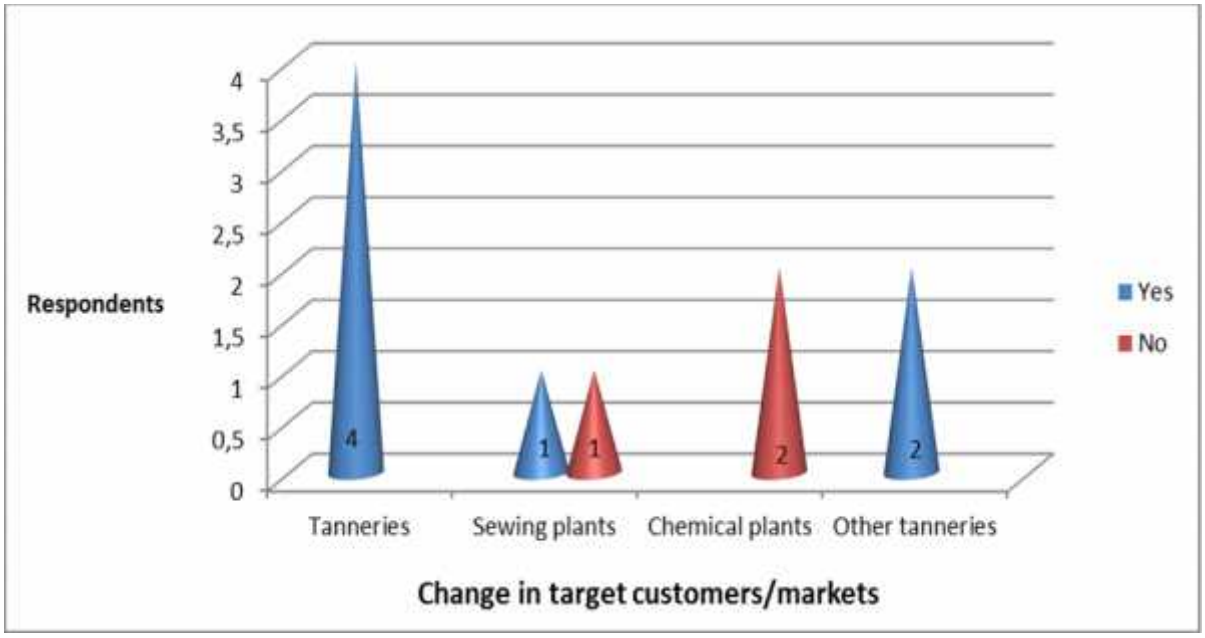

Figure 7.5: Change in target customers/markets during the reign of the MIDP (1995 to 2012)

Figure 7.5 revealed that both active automotive tanneries stated that there has been a change in their target customers/markets from 1995 to 2012 and that this change was significant. Both inactive automotive tanneries stated that there was a change in their target customers/markets from 1995 to 2012 and that this change was moderate. As stated under questions 8 and 9, the tanneries' manufacturing focus shifted to the automotive industry and, therefore, the customer focus shifted from footwear and furniture to customers using, or requiring, leather for automotive purposes. The domestic sewing plants are such customers that require automotive leather who then supply the OEMs nationally and internationally. Figure 7.5 further revealed that only one sewing plant stated that there has been a change in their

target customers/markets from 1995 to 2012 and that this change was significant. The other sewing plant stated that there has been no change in their target customers/markets from 1995 to 2012. The change or no change in target customers/markets generally relates to the global sourcing decisions by the OEMs' head offices.

As highlighted in chapter 3, South Africa has one of the few geared-up bovine leather value chains in the world that comprises of all five stages of the value chain in a cohesive manner and is the only one in Africa, which was established under the MIDP regime. Under the MIDP and now the APDP, the automotive industry is export focused, mainly to luxury car manufacturers in Japan and Germany. In respect of the IRCCs under the MIDP and PRCCs under the APDP, if the export volume is too low for the OEMs, they are not interested because with the higher logistical costs involved, there is no real incentive for them to place their business in South Africa.

Figure 7.5 further revealed that both chemical companies have stated that there has been no change in their target customers/markets from 1995 to 2012. The two tanneries manufacturing other leather products indicated that there has been only a small to moderate change in their target customers/markets. This indicates that the two chemical companies and the two tanneries manufacturing other leather products were not heavily dependent on the MIDP, and is still not dependent on the APDP to sustain their business. It is worth noting that although both chemical companies were not directly dependent on the MIDP and are still not dependent on the APDP subsidies, there has been a loss of business owing to the impact on the automotive tanneries because of the change of policy to the APDP.

Question 11 was used to determine the impact of the challenges that the respondents' company was subjected to for the period 1995 to 2012. For this question the researcher used a six point Likert rating scale from 1 (no impact) to 6 (very high impact) to obtain the considered responses. Table 7.2 reveal the results of the ten respondents.

Table 7.2: Impact of challenges of respondents for the period 1995 to 2012.

Criteria	Mean and Standard Deviation (SD)							
	Automotive tanneries (N=4)		Sewing plants (N=2)		Chemical companies (N=2)		Other tanneries (N=2)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Challenged by a shortage of good quality raw materials	5	1.22	3.5	0.50	2	1	5.5	0.71
Challenged because there is no regulation on the export of raw hides and skins	5	1.22	3	0	2.5	1.22	5.5	0.71
Challenged because of the prices of domestic raw materials	6	0	4	0	2.5	0.71	5.5	0.71
Challenged because the informal sector is not integrated within the formal supply chain	3.25	1.09	2.5	1.22	1.5	0.71	3	0.50
Challenged because of the rising costs of conducting business in South Africa	4.75	0.44	6	0	3.5	0.50	4.5	0.71
Challenged because of the logistical costs to main automotive markets	5.25	0.44	6	0	3.5	0.50	1	0
Challenged because of labour problems	3.75	0.44	6	0	3.5	0.50	3.5	0.50
Challenged because international competitors can supply main automotive markets at a cheaper price	4.75	0.44	6	0	3.5	0.50	2.5	1.22

Table 7.2 revealed that all six tanneries that are direct users of raw hides and skins indicated that the shortage of raw hides and skins is a major challenge (a mean of 5 for the automotive tanneries and 5.5 for the other tanneries), and has had a very high impact on their business operations. The two sewing plants, which are not direct users, stated that this has a moderate impact (a mean of 3.5) on them, because if the tanneries have to pay higher prices for raw hides and skins, they add this extra cost to their product, which the sewing plants then have to pay, impacting the entire supply chain. The two chemical companies stated that this has a low impact (a mean of 2) on their specific operations. As highlighted in chapter 3, South African producers and exporters prefer to export raw hides and skins because they are priced in US Dollars and, therefore, obtain higher prices than they can fetch locally. This is of major concern and should be of high priority to the South Africa government because this defies the objectives of the APDP (beneficiation of domestic raw materials).

Table 7.2 further revealed that all six tanneries that are direct users of raw hides and skins indicated that because there is no regulation on the export of hides and skins, this is a major challenge (a mean of 5 for the automotive tanneries and 5.5 for the other tanneries) that they have to contend with and it has had a very high impact on their business operations. The two sewing plants, which are not direct users, stated that this has a moderate impact (a mean of 3) on their business because this causes the tanneries to pay higher prices for raw hides and skins, and they add this extra cost to their product, which the sewing plants have to pay, impacting the entire supply chain. The two chemical companies stated that this aspect has a low impact (a mean of 2.5) on them because this forces the prices to go up, and then the tanneries want reduced prices for the chemicals. Question 12, which follows next, discusses this problem in greater detail.

Table 7.2 confirms that all six tanneries have complained about the high prices of hides and skins as this has a major impact (a mean of 6 for the automotive tanneries and 5.5 for the other tanneries) on their business. As explained above, the lack of regulation on the export of skins and hides allows producers and exporters to export

this raw material without being penalised, and the domestic manufacturers have to pay more. Once again, the two sewing plants, which are not direct users, stated that this has a moderate impact (a mean of 4) on their business, because tanneries pay exorbitant prices for raw hides and skins they then add this extra cost to their product, which the sewing plants have to pay, impacting the entire supply chain. The two chemical companies stated that this has a low impact (a mean of 2.5) on them because they have to lower the prices of their chemicals in order to be cost competitive so that the tanneries can sell their product at a lower price.

Table 7.2 further revealed that all six tanneries concurred that because the informal sector is not integrated within the formal supply chain, this challenge has had a low impact (a mean of 3.25 for the automotive tanneries and 3 for the other tanneries) on their business operations. The two sewing plants and the two chemical companies also indicated this challenge to be of a low impact (a mean of 2.5 and 1.5 respectively). As explained in chapter 3, the hides from emerging cattle farmers in the informal sector are estimated to be 25% of South Africa's cattle slaughter and are also thought to be going to waste, or attract a low price in exchange. Because the informal sector is not integrated with the formal supply chain, there is a high number of low quality hides that is exported because of the inferior quality. There are other markets in the world that utilise these lower quality hides for footwear and furniture upholstery.

Table 7.2 further revealed that all six tanneries, the two sewing plants and the two chemical companies stated that the rising cost of conducting business in South Africa is a major challenge (a mean of 4.75, 6, 3.5 and 4.5, respectively, for each group) and it has had a very high impact on their business operations. As explained in chapter 3, besides the rising cost of conducting business in South Africa, the South African automotive leather industry also has to contend with the international competitiveness pressures from OEMs. As the OEMs' competitiveness pressures rise, they are imposing and increasing competitiveness demands on to their component suppliers.

Owing to the nature of international competitiveness, OEMs are demanding more value at reduced costs resulting in first-tier component manufacturers and suppliers intensifying their manufacturing operations by abiding by this, and this results in the entire supply chain increasing and intensifying their competitiveness. This has an impact on contract decision-making by the OEMs and illustrates the concept of “world-best-prices” and supply chain competing against supply chain to be able to generate export business.

Table 7.2 further revealed that all the automotive tanneries and the sewing plants have stated that the logistical costs to main automotive markets is a major challenge (a mean of 5.25 and 6 respectively) that they have to contend with, and it has had a very high impact on their business operations. The two chemical companies, because of their relation to and dependence on the domestic automotive tanneries, have experienced a moderate impact (a mean of 3.5) on their business. The two tanneries manufacturing other leather products for the domestic market have experienced no impact (a mean of 1) on their business. This clearly indicates that the domestic automotive leather component manufacturers, who are involved in an export business, are in a weaker position than their competitors from Eastern Europe when exporting to their main customers, the OEMs. This is because of South Africa’s poor geographic location in relation to the main automotive markets’. As explained in chapter 3, Eastern European manufacturers are more competitive than South African’s because of their close proximity to their customers in Europe and this makes them much more attractive to OEMs.

Table 7.2 further revealed that all six tanneries, the two sewing plants and the two chemical companies concurred that labour problems in South Africa is a major challenge and has had a moderate to very high impact (a mean of 3.75, 6, 3.5 and 3.5 respectively for each group) on their business operations. As explained in chapter 3, the factor that contributed to South Africa being portrayed as high risk and an unreliable source, was the labour strikes that occurred in 2010 relating to the automotive industry’s three-year wage agreement negotiations at the time. This had a major effect on the reliability of supply of stitched leather sets to OEMs in Europe.

Thereafter, the OEMs regarded South Africa as being a high risk and unreliable source of supply, which then resulted in shifting their business away from South African suppliers to South American and Eastern European suppliers.

Table 7.2 finally revealed that all the automotive tanneries and the sewing plants have stated that, because competitors can supply main automotive markets more competitively, this is a major challenge that they have to contend with and it has had a high to very high impact (a mean of 4.75 for the automotive tanneries and a mean of 6 for the sewing plants) on their business operations. The two chemical companies, because of their relation to and dependency of the automotive tanneries, have experienced a moderate impact (a mean of 3.5) on their business. The two tanneries manufacturing other leather products have experienced a low impact (a mean of 2.5) on their business. As explained above, Eastern European manufacturers can manufacture stitched automotive leather seat parts more competitively than South Africa's manufacturers, and this makes them much more attractive to OEMs pursuing "world-best-prices".

Question 12 was used to determine the most important measure that could be taken to prevent the export of raw hides and skins from South Africa. Figure 7.6 reveal the results of the ten respondents.

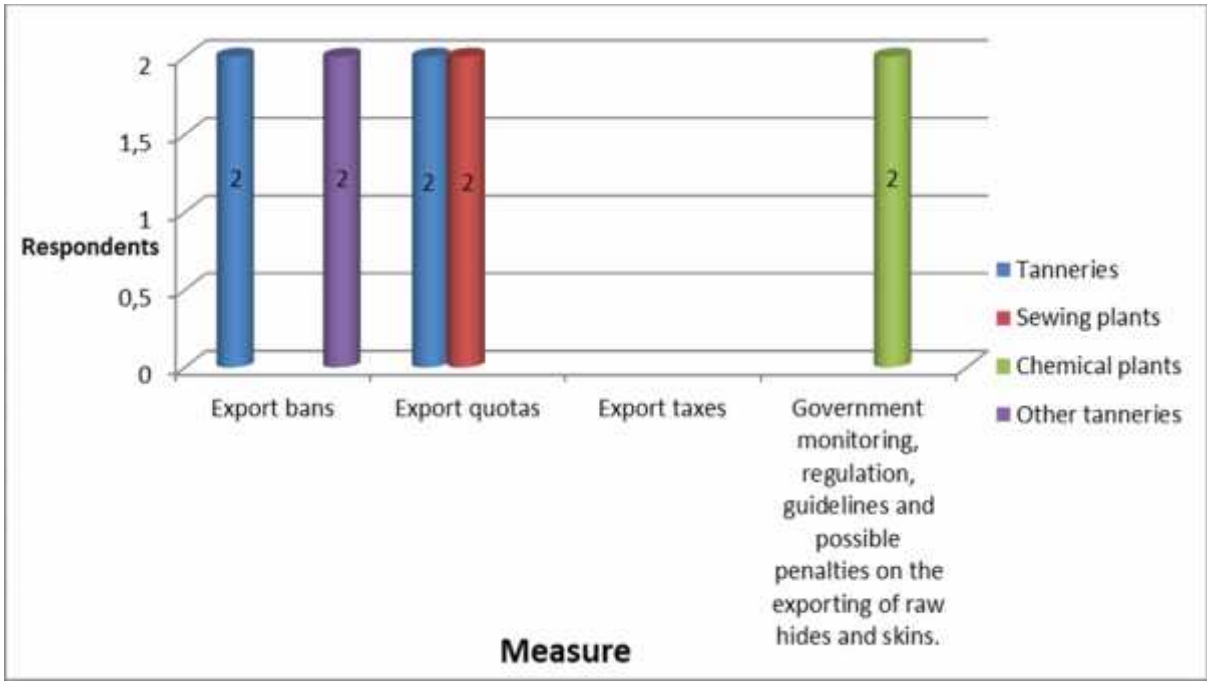

Figure 7.6: Measure that could be taken to prevent the export of raw hides and skins from South Africa

Figure 7.6 revealed that one active automotive tannery indicated that export bans would be the best measure that could be taken, whilst the other active automotive tannery stated that export quotas would be the best measure. Even the two inactive automotive tanneries had the exact same view where one recommended an export ban, whilst the other recommended an export quota. Both active and inactive automotive tanneries concurred that implementing an export ban, or quota measure, will result in more local supply being available to the domestic manufacturers, resulting in cheaper prices. The active automotive tannery and the inactive one that suggested an export ban, went further to justify their responses by stating that hides are exported according to the R/US$, which puts pressure on the price of hides. If exports of this material were banned, there will not be any demand pressure from international buyers, which will result in lower local prices. The other active automotive tannery, which stated that an export quota would be the best measure, went further to justify their response by stating that there is not sufficient business in South Africa for the total number of available hides, but it needs to be regulated in

order to keep prices lower. The one inactive automotive tannery, which suggested an export quota, also stated that a restriction on the export of hides in wet blue state will force further beneficiation of hides and skins in South Africa, thus resulting in more employment opportunities. It will make the pricing of local leather in a more processed state more competitive globally, however, the impact of this on the farmer is unknown. It must be stated that South Africa cannot unilaterally implement an export ban because of potential implications relating to its international trade agreements, as well as potential countervailing power by other trading partners.

Figure 7.6 further revealed that both the sewing plants indicated that export quotas would be the best measure that could be taken. The one sewing plant stated that part of the tanneries' business is to export and without this they will not survive. The other sewing plant indicated that this would help the industry by reducing input costs.

Figure 7.6 further revealed that both the chemical companies indicated that government's monitoring, regulation, guidelines and possible penalties on the export of raw hides and skins would be the best measure that could be taken. Both these respondents concurred that with this measure, skilled and qualified people are needed to ensure that there is adequate monitoring and supervision to allow this measure to succeed optimally.

Figure 7.6 further revealed that both tanneries manufacturing other leather products stated that export bans would be the best measure that could be taken. One of these tanneries stated that the ban on the export of hides and skins has been successful in other developing economies from which South Africa can learn. The other tannery justified its response by stating that by banning the export of these raw materials, there will be more raw hides for local consumption and production. As indicated above, South Africa cannot unilaterally implement an export ban because of potential implications relating to its international trade agreements. Furthermore, the viewpoints expressed are beneficial to each respondent exclusively (e.g. the tanneries). It obviously did not consider the negative financial effect that these

changes would have on the exporters of these hides who also run a business with the ultimate aim to realise a profit.

Figure 7.6 further revealed that none of the respondents indicated that export taxes would be the best measure that could be taken. Possible reasons include that there are other materials that have export taxes on it, but suppliers that export these materials circumvent paying taxes. However, unilateral implementation of export taxes could result in retaliation by other trading partners with countervailing measures and these companies will first of all get the South African government to support these kinds of measures.

It must be further noted and as highlighted in chapter 3, there is currently no policy with regards to the export of raw hides and skins in South Africa, and this is perceived to be unsatisfactorily for the industry. Chapter 3 further explains that South Africa's production of raw skins and hides are inferior to that of other developing economies that form part of the BRICS trading group, such as India and Brazil, yet, South African producers are able to export a massive amount of raw materials without any form of government intervention.

Question 13 was used to determine the respondent's level of agreement with regards to the following possible advantages of controlling the export of raw hides and skins from South Africa. For this question the researcher used a five point Likert rating scale from 1 (strongly disagree) to 5 (strongly agree) to obtain the considered response of the industry. Table 7.3 reveal the results of the ten respondents.

Table 7.3: Possible advantages of controlling the export of raw hides and skins from South Africa.

Criteria	Mean and Standard Deviation (SD)							
	Automotive tanneries (N=4)		Sewing plants (N=2)		Chemical companies (N=2)		Other tanneries (N=2)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
It will provide access to good quality raw materials	4.25	1.36	3	1	3.5	0.71	4	0
It will provide access to lower prices of raw materials	4.25	1.36	2	0	2.5	0.71	4.5	0.71
It will assist in lowering the costs of conducting business in South Africa	3.25	1.09	2.5	0.71	2.5	0.71	3.5	0.71
There is potential to integrate the informal sector within the formal supply chain	3	1.12	3	1	3.5	0.71	3	1
It will assist in beneficiating raw materials up to the final stages of the supply chain	4.25	1.36	3	1	3.5	0.71	5	0
It will assist in overcoming labour problems	2.75	1.22	2.5	0.71	2	0	3	1
It will assist in employment creation	4	0.50	2.5	0.71	3	1	4.5	0.71

Table 7.3 revealed that all six tanneries, who are the direct users of raw hides and skins, strongly agreed (a mean of 4.25 for the automotive tanneries and 4 for the other tanneries) that controlling the exports of hides and skins from South Africa will provide access to good quality raw materials. The sewing plants and chemical companies also agreed (a mean of 3 and 3.5 respectively) to this, therefore, there is a general consensus by all the industry role-players that this will be beneficial for the industry at large if implemented and resulting in a higher quality of hides and skins.

Table 7.3 further revealed that all six tanneries, who are the direct users of raw hides and skins, strongly agreed (a mean of 4.25 for the automotive tanneries and 4.5 for the other tanneries) that controlling the exports of hides and skins from South Africa will provide access to lower prices of raw materials, as well as higher quality of raw materials. The sewing plants and chemical companies were neutral (a mean of 2 and 2.5 respectively) regarding this, forming part of the upstream supply chain. The conclusion is that all the role-players agree that it will be beneficial for the industry at large if some form of control is implemented and that it would result in lower prices for hides and skins.

Table 7.3 further revealed that all six tanneries, both sewing plants and both chemical companies were mainly neutral (a mean of 3, 3, 3.5 and 3 respectively for each group) regarding the statement that by controlling the exports of hides and skins from South Africa, this will lower the cost of conducting business in South Africa. The general consensus from the role-players is that this will not impact materially on the cost of doing business in the country. This implies that although these role-players want to see a limitation on the export of raw material, it would not materially affect their cost of conducting business. This is a poser in the sense that these role-players all want to reduce the export of this raw material, irrespective of the impact on the suppliers of the raw material, but on the other hand feels that it would not lower their manufacturing costs materially.

Table 7.3 further revealed that all six tanneries, both sewing plants and both chemical companies were mainly neutral (a mean of 3.25, 2.5, 2.5 and 3.25

respectively for each group) regarding the statement that by controlling the exports of hides and skins from South Africa, this will allow the integration of the informal sector into the formal supply chain. The general consensus from the role-players is that this will not impact materially on their business operations.

Table 7.3 further revealed that all six tanneries, who are the direct users of raw hides and skins, strongly agreed (a mean of 4.25 for the automotive tanneries and 5 for the other tanneries) that controlling the exports of hides and skins from South Africa will assist in beneficiating raw materials up to the final stages of the supply chain. The sewing plants and chemical companies also agreed (a mean of 3 and 3.5 respectively) to this, therefore, there is a general consensus by all the industry role-players that this will be beneficial for the industry. As explained in chapter 3, this is in line with the objectives of the APDP and other industrial policies relating to value addition in the country. It must, however, be reiterated that there is narrow self-interest at work here and that these role-players have their own interests at heart rather than improving the supply chain of leather products.

Table 7.3 further revealed that all six tanneries, both sewing plants and both chemical companies were relatively neutral (a mean of 2.75, 2.5, 2 and 3 respectively for each group) that by controlling the exports of hides and skins from South Africa, this will assist in overcoming labour problems. The general consensus from the role-players is that this will not impact on their business operations relating to labour problems.

Table 7.3 finally revealed that all six tanneries, who are the direct users of raw hides and skins, strongly agreed (a mean of 4 for the automotive tanneries and 4.5 for the other tanneries) that controlling the exports of hides and skins from South Africa will assist in employment creation. As explained in chapter 3, the greatest amount of value addition that happens within the value chain, from a raw hide to a sewn set, is in the tanning and cutting stage. If there is more domestic supply, there will be lower prices, which will result in lower costs, resulting in an increase in orders and further resulting in more employment creation. Both the sewing plants and chemical

companies were neutral (a mean of 2.5 and 3 respectively) with regards to this in terms of their roles in the supply chain, therefore, there is a general consensus by all the industry role-players that this will allow for employment creation opportunities within the domestic leather industry, and more critical, the informal side of the supply chain could also benefit following the correct approach. Although the respondents were in agreement on creating more employment opportunities, they were dismissive that reducing the exports of raw material will solve labour problems in South Africa. Therefore, it would seem that labour problems in South Africa are not directly linked to job creation in the leather sector.

This ends the questions for the ten respondents in this section. **Questions 14 – 22** in this section had to be answered only by the OEMs. **Question 14** was a filter question in order to determine whether an OEM utilised automotive leather in the manufacturing of their vehicles or not. Figure 7.7 reveal the results of the seven OEMs.

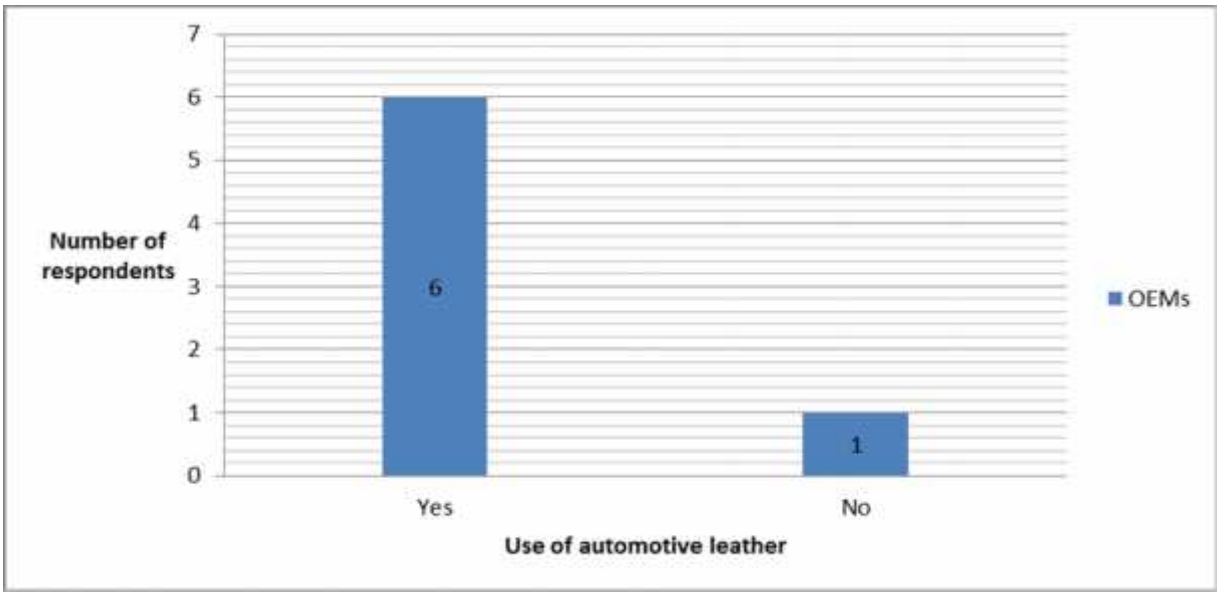

Figure 7.7: Use of automotive leather

Figure 7.7 revealed that six of the seven OEMs utilise automotive leather in the manufacturing of their vehicles in South Africa. The one OEM that does not utilise

automotive leather only needed to answer question 15 in this section and then move on to section C of the questionnaire.

Question 15 was used to obtain an in depth reason why an OEM does not use automotive leather in the manufacturing of their vehicles. Only one OEM had to answer this question and the reason provided is that the focus is on engineering cost reduction activity to achieve total delivery cost targets, i.e. all the models use either vinyl or other synthetics for the interior of their vehicles. The business model of this OEM is basically to focus on the entry level to middle class vehicle segments and reduce costs where possible in order to provide the consumer with the best price.

Question 16 was used to determine the annual purchase in rand value of automotive leather. Figure 7.8 reveal the results of the six OEMs.

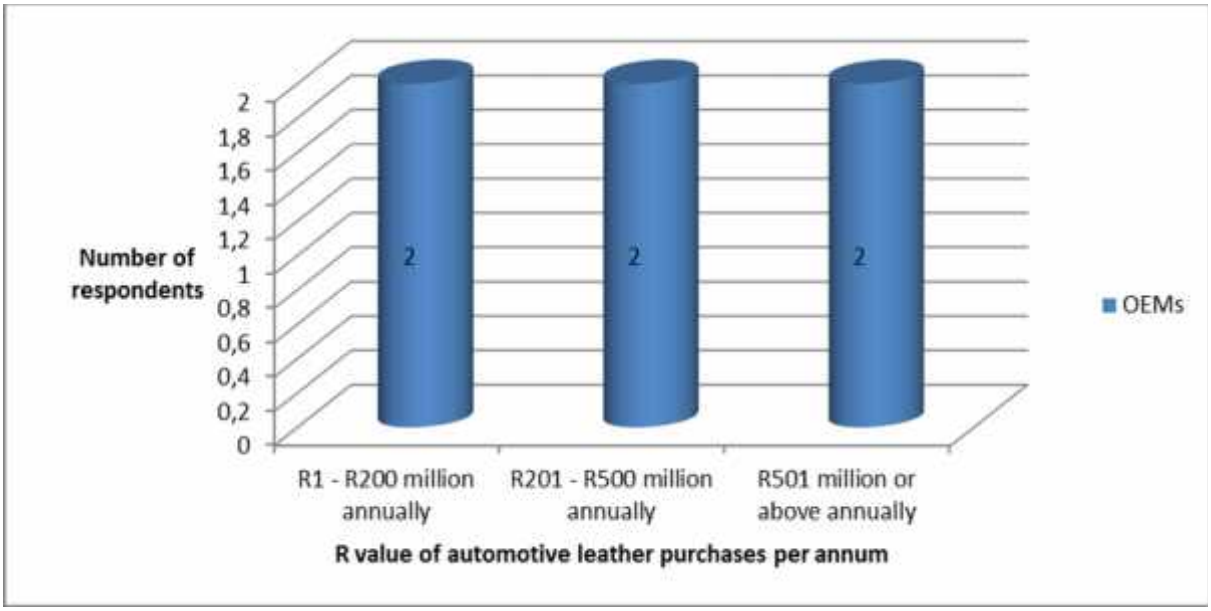

Figure 7.8: R value of automotive leather purchases per annum

Figure 7.8 revealed that one USA-based OEM and one European-based OEM purchase under R200 million of automotive leather annually. Both these OEMs do not focus on the luxury vehicle market but rather on the middle class vehicle market where the focus on costs and product pricing are key considerations. Even though

this European-based OEM is located in the heart of the German market, the focus of this OEM is more on the middle class vehicle market, and in South Africa this OEM has a dominant position in this segment of the market.

Figure 7.8 further revealed that one Japanese-based OEM and one USA-based OEM indicated that they purchase above R201 million but below R500 million annually. These OEMs are also focused on the upper middle class vehicle market and this is proven by the Japanese-based OEM being the market leader for 35 consecutive years in South Africa, whilst the USA-based OEM is also a dominant player commanding a substantial market share.

Figure 7.8 further revealed that two European-based OEMs purchase in excess of R501 million of automotive leather annually. These OEMs are primarily focused on the luxury vehicle market and they are supported by the fact that their parent companies are located in the heart of the German market. As highlighted in chapter 3, the German markets are the biggest users of automotive leather. Because their primary focus is on the luxury vehicle market, both these OEMs have a smaller market share of the South African market seeing that the majority of their vehicle production is exported.

Question 17 was used to determine from which suppliers the OEMs purchase a higher quantity of automotive leather. Figure 7.9 reveal the results of the six OEMs.

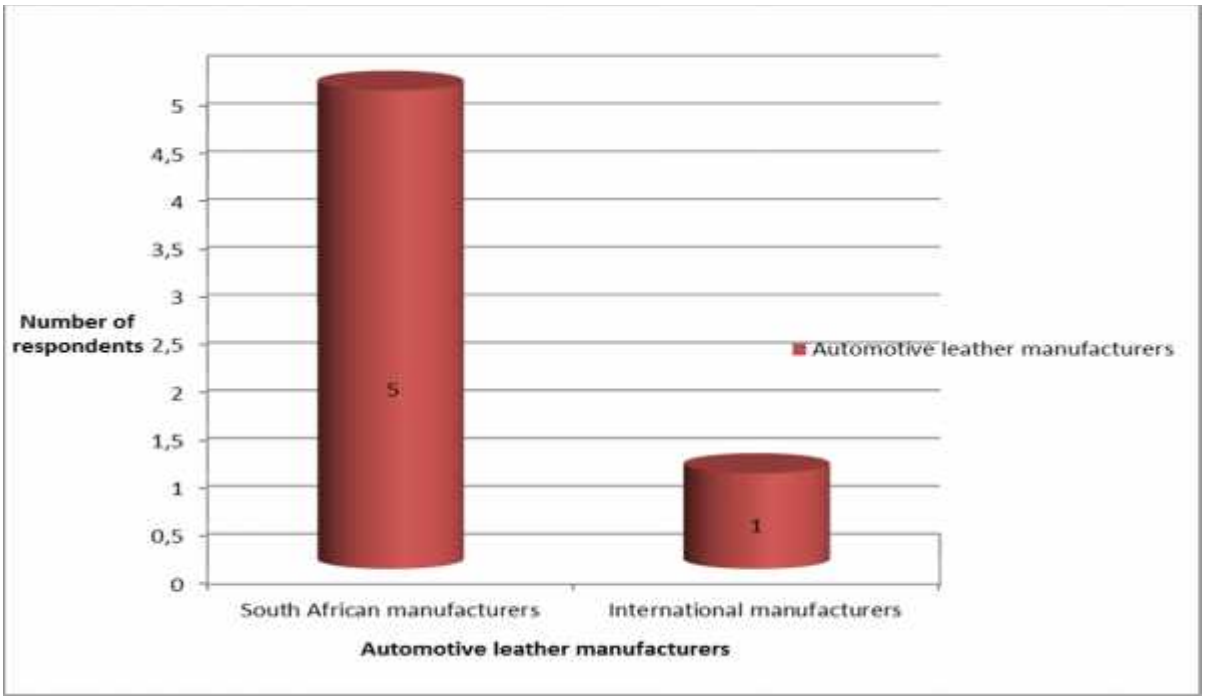

Figure 7.9: From which suppliers/manufacturers do the OEMs purchase a higher quantity of automotive leather from

Figure 7.9 revealed that five of the OEMs purchase from South African manufacturers in the supply chain, whilst one USA-based OEM indicated that they purchase from international manufacturers. For this question, the OEMs had to further elaborate the reason for their choice. All five OEMs, which purchase automotive leather from South African manufacturers, stated that they support and promote localisation in line with the MIDP and APDP automotive policy regimes and that the South African product quality is of a high international standard. The one European-based OEM sourcing over R501 million of automotive leather purchases per annum indicated that purchasing from South African manufacturers was part of their global strategy under the MIDP and remains part of their global strategy under the APDP. The one USA-based OEM that is purchasing more from international manufacturers stated that the vehicle models that they introduce have a lower requirement for automotive leather because of the range and models.

Question 18 was used to determine whether the purchasing options of automotive leather have changed during the period when the MIDP was in effect, that is from 1995 to 2012. Figure 7.10 reveal the results of the six OEMs.

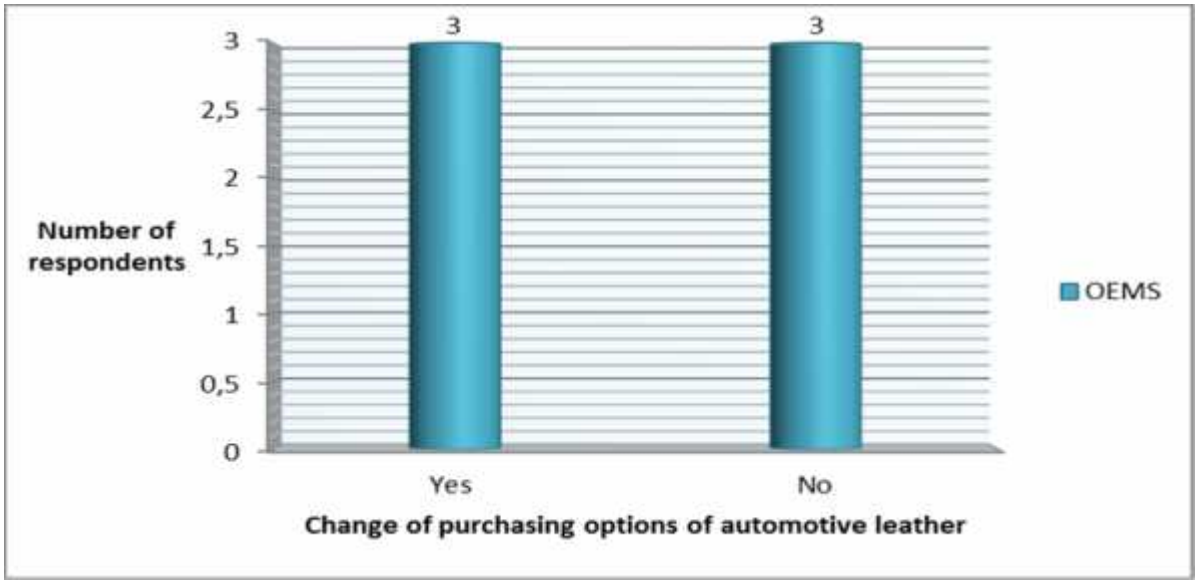

Figure 7.10: Change of purchasing options of automotive leather

Figure 7.10 revealed that two European-based OEMs and one USA-based OEM stated that their purchasing options with regards to automotive leather have changed for the period 1995 to 2012. This is as a result of the MIDP's incentives that were lucrative for the OEMs and whereof they wanted to take full advantage by getting involved in the sourcing of stitched leather seat part products in South Africa. The one Japanese-based OEM, one USA-based OEM and one European-based OEM stated that their purchasing options with regards to automotive leather have not changed at all. They have been operating in South Africa prior to the MIDP being implemented and, therefore, were able to reap the benefits of the MIDP first.

Question 19 was used to identify who determines the locus of the purchasing decision making regarding automotive leather. Figure 7.11 reveal the results regarding this issue.

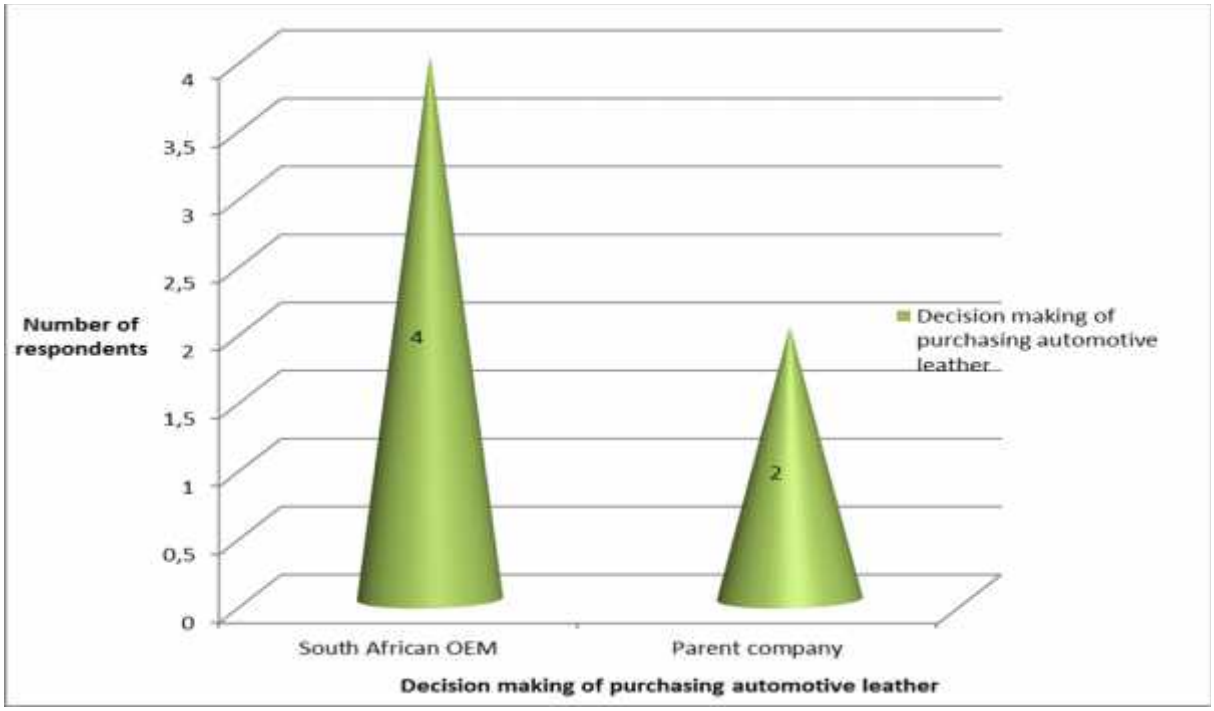

Figure 7.11: Decision making of purchasing automotive leather

Figure 7.11 revealed that the one Japanese-based OEM's, the one USA-based OEM's and the two European-based OEMs' decision making with regards to the purchasing of automotive leather is done by the South African OEM with the multinational suppliers, as delegated by the head offices, but still subject to global sourcing criteria. This is as a result of the favourable arrangements of the MIDP because the MIDP framework aimed to encourage domestic OEMs to specialise in one or two high volume models, obtain economies of scale benefits, and then use the IRCCs to import all components and vehicles not assembled in the domestic market. This gave the domestic OEMs flexibility in their sourcing decision making because they had agreements with domestic component manufacturers to buy back the IRCCs after generating export business for them, and in return the domestic component manufacturers were able to achieve higher volumes in the domestic

market to become economically viable. One USA-based OEM and one European-based OEM stated that the parent company makes the decisions regarding the purchases of automotive leather because of the global sourcing strategies that they pursue. This implies that the global supply chain benefits play a dominant part in the sourcing of automotive leather.

Question 20 dealt with the level of importance of the sourcing criteria for the selection of the automotive leather manufacturer. For this question, the researcher used a five point Likert rating scale from 1 (not important at all) to 5 (of extreme importance) to obtain the most considered response. Table 7.4 reveal the results of the six OEMs.

Table 7.4: Criteria for selection of the automotive leather manufacturer to ascertain on what grounds they should get the business.

Criteria	Mean N = 6	Standard Deviation
Price competitiveness	4.5	0.50
Quality of manufacturers	5	0
Trade relations of a country	3.17	0.69
Labour stability of a country	3.83	0.69
Political conditions of a country	3.17	0.90
Economic conditions of a country	3.17	0.69
Currency conditions of a country	3.33	0.47
Supplier relationships of a country	3.5	0.96
Enhanced JIT supply requirements	4	0.57

Table 7.4 revealed that all six OEMs that utilise automotive leather in their supply chain stated that the quality of manufacturers is of extreme importance (a mean of 5) in their decision making. The general consensus is that the quality of manufacturers

is regarded as the most critical factor when selecting an automotive leather manufacturer, because the product is utilised in the premium segment vehicles and premium brands.

Table 7.4 further revealed that all six OEMs that utilise automotive leather in their supply chain indicated that price competitiveness is of very high importance (a mean of 4.5) in their decision making. The general consensus is that price is a critical factor for the OEMs when selecting an automotive leather manufacturer and that South Africa has to compete with world-best-prices.

Table 7.4 further revealed that all six OEMs that utilise automotive leather in their supply chain stated that an enhanced JIT supply was of a high importance (a mean of 4) in their decision making. The general consensus was that an enhanced JIT supply is a critical factor when selecting an automotive leather manufacturer because the reliability of supply is important when it comes to the global supply of the product.

Table 7.4 further revealed that all six OEMs that utilise automotive leather in their supply chain stated that labour stability of a country was important (a mean of 3.83) in their decision making. The general consensus was that the labour stability of a country is an important factor when selecting an automotive leather manufacturer because OEMs' manufacturing processes are linked to just-in-time and just-in-line principles, and a disruption thereof will impact negatively on reliability of supply and, hence, impact on OEMs' decision making on who to outsource business to.

Table 7.4 further revealed that all six OEMs that utilise automotive leather in their supply chain stated that supplier relationships of a country were important (a mean of 3.5) in their decision making. The general consensus was that supplier relationships of a country are an important factor when selecting an automotive leather manufacturer because it assists with contract decision making and supply of product. Supply chains compete against supply chains globally and the OEMs attributing a high importance to supplier relationships support this notion.

Table 7.4 further revealed that all six OEMs that utilise automotive leather in their supply chain stated that the currency conditions of a country were of moderate importance (a mean of 3.33) in their decision making. The general consensus was that the currency conditions of a country are an important factor when selecting an automotive leather manufacturer because this assists the OEMs with cost planning and contract development.

Table 7.4 further revealed that all six OEMs that utilise automotive leather in their supply chain stated that trade relations of a country were of moderate importance (a mean of 3.17) in their decision making. The general consensus is that trade relations of a country are not such a critical factor but it is still high when selecting an automotive leather manufacturer. The OEMs are linked to the global networks of the parent companies and, therefore, have good trade relations with all the countries it supplies. South Africa's trade arrangements with the EU, its main trading partner under the MIDP and APDP, as well as the USA, its top export destination for vehicles over recent years, enhanced the domestic industry's automotive export performance to these destinations and are, therefore, of importance.

Table 7.4 further revealed that all six OEMs that utilise automotive leather in their supply chain stated that the political conditions of a country were of moderate importance (a mean of 3.17) in their decision making. The general consensus was that the political conditions of a country are not a critical factor when selecting an automotive leather manufacturer because OEMs generally have a long-term business view.

Table 7.4 finally revealed that all six OEMs that utilise automotive leather in their supply chain stated that the economic conditions of a country were of moderate importance (a mean of 3.17) in their decision making. The general consensus was that the economic conditions of a country are not a critical factor when selecting an automotive leather manufacturer because OEMs generally have a long-term business view, and multinational suppliers have identical operations in different parts

of the world who will be ever so ready to secure that business in case of host country problems.

The main conclusion derived from this question is that quality (mean of 5), price (mean of 4.5), JIT supply (mean of 4), labour stability (mean of 3.83) and supplier relationships (mean of 3.5) are the most critical factors that affect, or impact, OEMs' decision making in selecting appropriate automotive leather suppliers for their supply chain. A minimum mean of 3.5 was used by the researcher as the cut-off point in determining the important criteria as alluded to by the OEMs. These five factors are the most important on the OEM hierarchy, whilst the other factors are of secondary importance (mean of less than 3.5).

Question 21 dealt with the OEMs rating South African manufacturers of automotive leather using various criteria as indicated. For this question the researcher used a five point rating scale from 1 (very weak) to 5 (very strong) to obtain the most considered opinion. Table 7.5 reveal the results regarding this issue.

Table 7.5: Rating of South African manufacturers of automotive leather by the OEMs.

Criteria	OEMs	Mean per OEM	N = 6 Mean	Standard Deviation
Price competitiveness	Japanese-OEM	2		
	European-OEMs	3.33		
	USA-OEMs	2.5	3.17	0.77
Quality of manufacturers	Japanese-OEM	4		
	European-OEMs	4		
	USA-OEMs	4	4	0.82
Standards of manufacturing equipment	Japanese-OEM	4		
	European-OEMs	3.67		
	USA-OEMs	4	3.83	0.90
Standards of technological requirements	Japanese-OEM	4		
	European-OEMs	3.67		
	USA-OEMs	4	3.83	0.90
Ability to keep up with manufacturing targets	Japanese-OEM	4		
	European-OEMs	3.33		
	USA-OEMs	4.5	3.83	0.69
Labour stability	Japanese-OEM	2		
	European-OEMs	2.33		
	USA-OEMs	2	2.33	0.41
Higher risk profile than that of competitors	Japanese-OEM	3		
	European-OEMs	3.33		
	USA-OEMs	3.5	3.33	0.47
Supplier relationships	Japanese-OEM	4		
	European-OEMs	3.67		
	USA-OEMs	3.5	3.67	0.47
Enhanced JIT supply requirements	Japanese-OEM	5		
	European-OEMs	4		
	USA-OEMs	3.5	4	0.82

Table 7.5 revealed that the one Japanese-based OEM that utilises automotive leather indicated that South African manufacturers are weaker (a mean of 2) in being price competitive. The two USA-based OEMs indicated that South African manufacturers are market related (a mean of 2.5) in terms of price, whilst the three European-based OEMs stated that South African manufacturers of automotive leather are price competitive (a mean of 3.33). The general consensus is that South African manufacturers of automotive leather are market related (a mean of 3.17) in terms of price, which could be attributed to the incentives obtained under the MIDP and APDP.

Table 7.5 further revealed that the one Japanese-based OEM, the two USA-based OEMs and the three European-based OEMs that utilise automotive leather concurred that South African manufacturers of automotive leather are superior (a mean of 4 for all the OEMs) in terms of the quality of their manufactured automotive leather. The general consensus is that South African manufacturers can manufacture automotive leather very competitively and in line with the international standards of quality (a mean of 4) and this is a stringent demand imposed by the OEMs.

Table 7.5 further revealed that the one Japanese-based OEM and the two USA-based OEMs that utilise automotive leather indicated that the standards of manufacturing equipment of South African manufacturers are superior (a mean of 4 each respectively) to that of international competitors. Two European-based OEMs indicated that the domestic manufacturers are market related (a mean of 3) in terms thereof, whilst the other European-based OEM stated that the standards of manufacturing equipment from South African manufacturers are superior (a mean of 5) to that of international competitors. The general consensus is that South African manufacturers of automotive leather have manufacturing equipment that are on par with, or superior to, international standards (a mean of 3.83) because the OEMs demand this as a very important requirement.

Table 7.5 further revealed that the one Japanese-based OEM and the two USA-based OEMs that utilise automotive leather indicated that the standards of technological requirements from South African manufacturers are superior (a mean of 4 each respectively) to that of international competitors. Two European-based OEMs indicated that the domestic manufacturers are market related (a mean of 3) in terms thereof, whilst the other European-based OEM stated that the standards of technological requirements from South African manufacturers are superior (a mean of 5) to that of international competitors. The general consensus is that the standards of technological requirements from South African manufacturers of automotive leather are on par with, or superior to, (a mean of 3.83) the relevant international standards.

Table 7.5 further revealed that the one Japanese-based OEM and the two USA-based OEMs that utilise automotive leather indicated that South African manufacturers are superior (a mean of 4 and 4.5, respectively) in terms of keeping up to manufacturing targets if compared to the international competitors. Two European-based OEMs indicated that the domestic manufacturers are market related (a mean of 3) in terms thereof, whilst the other European-based OEM stated that South African manufacturers are superior (a mean of 4) in terms of keeping up to manufacturing targets if compared to international competitors. The general consensus is that South African manufacturers of automotive leather have the capacity and capabilities to keep up with manufacturing targets (a mean of 3.83) to those of international competitors.

Table 7.5 further revealed that the one Japanese-based OEM, the two USA-based OEMs and the two European-based OEMs that utilise automotive leather indicated that labour stability of South African manufacturers is weaker (a mean of 2 each) than that of competitors. The one European-based OEM indicated that South African manufacturers are market related (a mean of 3) in terms hereof. The general consensus is that labour stability is an important factor for the OEMs and South African manufacturers of automotive leather are weaker (a mean of 2.33) in this

regard than competitors even though South Africa has three year wage agreements in place to secure industrial relations stability.

Table 7.5 further revealed that the one Japanese-based OEM, the one USA-based OEM and the two European-based OEMs that utilise automotive leather indicated that South African manufacturers are market related (a mean of 3 each) in terms of their risk profile if compared to competitors. The one USA-based OEM and the one European-based OEM indicated that the domestic manufacturers are superior (a mean of 4 each) in terms hereof. The general consensus is that the risk profile of South African manufacturers of automotive leather are market related (a mean of 3.33) if compared to competitors.

Table 7.5 further revealed that the one Japanese-based OEM, the one USA-based OEM and the two European-based OEMs that utilise automotive leather indicated that South African manufacturers are superior (a mean of 4 each) in terms of their supplier relationships compared to their competitors. The one USA-based OEM and the one European-based OEM indicated that the domestic manufacturers are market related (a mean of 3 each) in terms hereof. The general consensus is that South African manufacturers of automotive leather have good supplier relationships (a mean of 3.67) and this is important to the OEMs when it comes to their contract decision making.

Table 7.5 finally revealed that the one Japanese-based OEM, the two European-based OEMs and the one USA-based OEM that utilise automotive leather indicated that South African manufacturers are superior (a mean of 5, 4.5 and 4, respectively) in terms of their JIT supply, as required by OEMs. The one USA-based OEM and the one European-based OEM indicated that the domestic manufacturers are market related (a mean of 3 each) in terms thereof. The general consensus is that South African manufacturers of automotive leather are superior (a mean of 4) to their competitors in terms hereof and have the ability to supply on a JIT requirement as demanded by OEMs.

The main conclusions derived from this question using the five main factors on the OEMs' hierarchy of importance when selecting an automotive leather manufacturer is revealed in the following table.

Table 7.6: Main conclusions derived using the five main factors on the OEMs' hierarchy of importance when selecting an automotive leather manufacturer for their supply chain.

Five main factors on the OEMs' hierarchy of importance when selecting an automotive leather manufacturer.		Rating of South African manufacturers of automotive leather by the OEMs.		Result for South African manufacturers.
Quality	**Mean**	**Quality**	**Mean**	**Result**
Most important criterion for the OEMs.	**5**	Superior in the quality of their automotive leather manufacturing in line with international standards.	**4**	**Above 3.5**
Price	**Mean**	**Price**	**Mean**	**Result**
This factor is critical in nature to the OEMs.	**4.5**	Market related but logistical costs make them weaker than international competitors.	**3.17**	**Below 3.5**
JIT supply	**Mean**	**JIT supply**	**Mean**	**Result**
A critical requirement imposed by OEMs.	**4**	Have the ability and capacity to supply the product on a JIT requirement as demanded by OEMs.	**4**	**Above 3.5**
Labour stability	**Mean**	**Labour stability**	**Mean**	**Result**
Very important as it affects reliability of supply.	**3.83**	Very weak when compared to international competitors.	**2.33**	**Below 3.5**
Supplier relationships	**Mean**	**Supplier relationships**	**Mean**	**Result**
Important in OEMs' contract decision making.	**3.5**	Superior to those of international competitors.	**3.67**	**Above 3.5**

Table 7.6 revealed that three of the five critical factors, namely quality, JIT supply requirements and good supplier relationships as demanded by the OEMs are already being achieved by the South African automotive leather manufacturers (see the green blocks in table 7.6). The other two critical factors, namely price and labour stability need to be a matter of high importance to the South African government (see the red blocks in table 7.6). Government can play a role in price competitiveness in terms of the APDP policy regime to offset logistical costs and also in pro-actively becoming more involved in labour stability in the industrial sectors.

Question 22 was used to determine whether an OEM's trend is to purchase less from South African manufacturers than international manufacturers, and an explanation of what was required in order to ensure that South African manufacturers could be the first option for automotive leather purchases. Five OEMs that utilise automotive leather stated that they purchase more from local manufacturers because they support localisation and will continue to support domestic manufacturers. Only one out of the five OEMs indicated that the trend is declining because of price issues, labour instability as well as upward inflationary factors, such as electricity price increases in the country. The one OEM that utilises automotive leather and purchases more from international manufacturers stated that there is a drive towards increasing localisation in the current environment based on the weakening of the rand and that there are economic reasons that will drive this. Basically, this OEM wants to support more localisation because of the APDP incentives, which are lucrative to the OEMs because of the high value of the investment incentive (AIS) and economies of scale, which are imperative to capitalise on via the APDP.

This ends all the questions for section B.

7.4 Section C of the questionnaire

In this section, all 19 respondents were required to answer **questions 23 to 33** on government policy. To reiterate the composition of the 19 respondents, the stakeholders comprise of two independent units, two chemical companies and two other tanneries manufacturing other leather products. The component manufacturers comprise of the two active and two inactive automotive tanneries and the two sewing plants. There are seven OEMs/vehicle manufacturers, thus totalling the responses to 19.

Question 23 dealt with whether respondents were registered under the MIDP. Figure 7.12 reveal the results of the respondents.

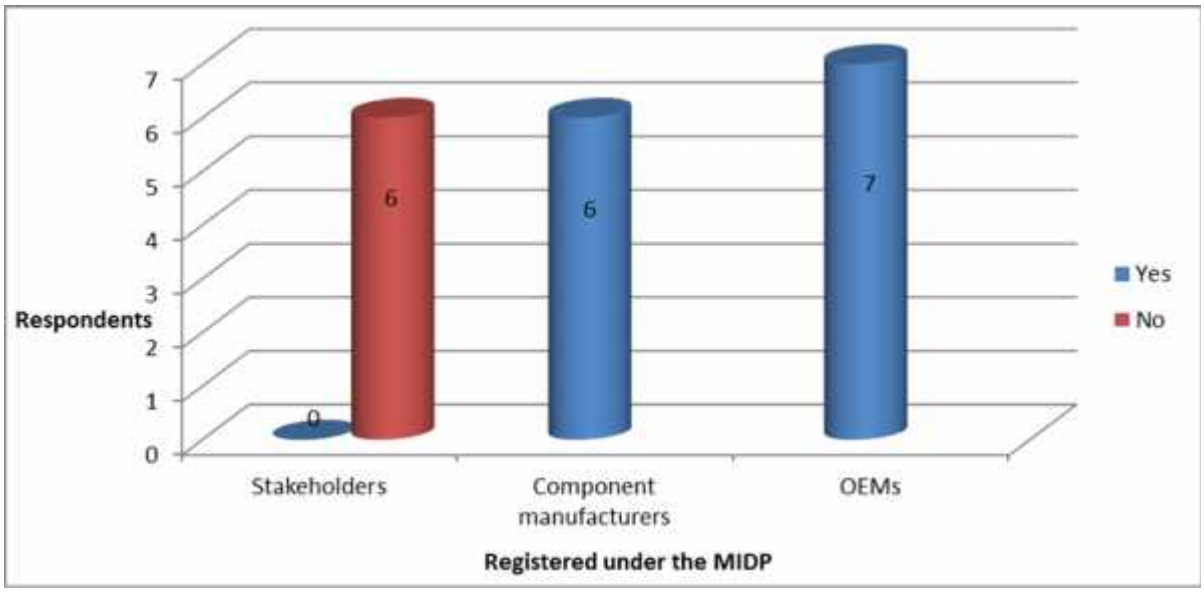

Figure 7.12: Registered under the MIDP

Figure 7.12 revealed that no stakeholders were registered under the MIDP. The stakeholders not registered under the MIDP did not manufacture any products eligible under the MIDP because only the complete stitched leather parts were deemed as eligible. The aim of including the non-MIDP registered companies in the question was to obtain their views and perceptions on the companies that benefited indirectly from the MIDP as part of the leather supply chain and the spin-offs that occurred. All six component manufacturers and all seven OEMs were registered under the MIDP.

Question 24 dealt with whether respondents benefited directly or indirectly from the MIDP via IRCCs. Figure 7.13 and figure 7.14 reveal the results of the respondents.

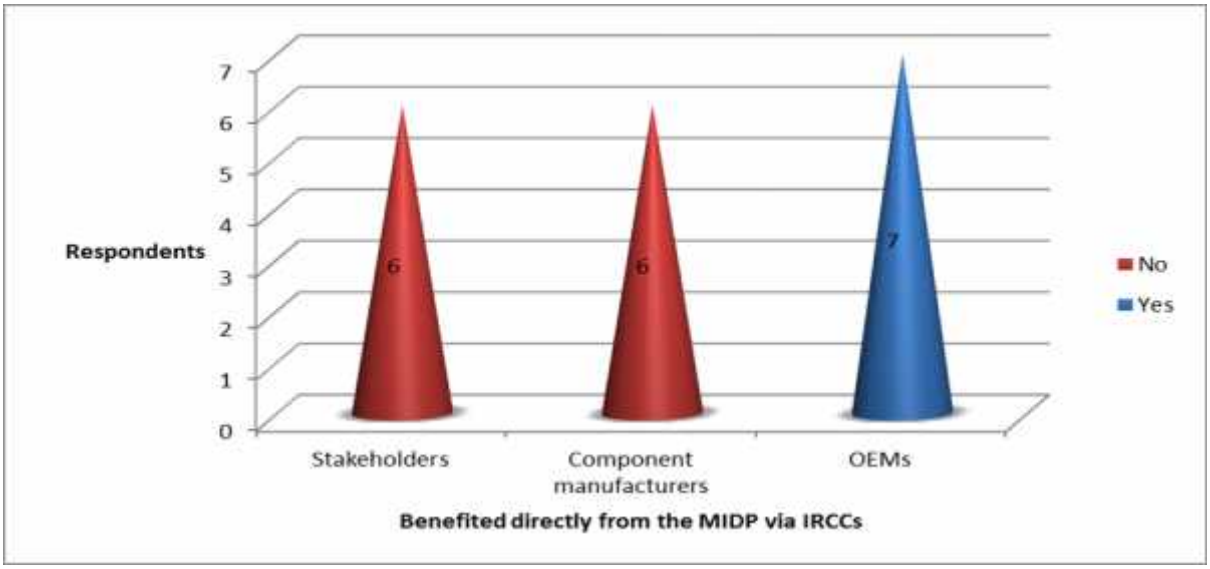

Figure 7.13: Benefited directly from the MIDP via IRCCs

Figure 7.13 revealed that all six stakeholders stated that they, as part of the upstream leather supply chain, did not benefit from the MIDP directly, only indirectly via their synergies with the automotive sector. All six component manufacturers stated that they did not benefit directly via IRCCs from the MIDP. However, the component suppliers benefited indirectly under the MIDP because the OEMs generally generated the exports contracts for the component manufacturers, resulting in higher volumes and economies of scale for the suppliers. The OEMs covered the logistic costs in exporting on behalf of the suppliers and, therefore, the OEMs claim the direct benefits. All seven OEMs stated that they did benefit directly from the MIDP in the form of IRCCs. The OEMs utilised the IRCCs under the MIDP's import/export complementation scheme directly to rebate the import duties on completely built-up vehicles and completely knocked down kits, the latter to assemble vehicles in South Africa. Components with a higher local content under the MIDP generated higher IRCCs, which was then utilised to reduce the duties on other automotive related imports. Figure 7.14 reveal the results of whether the respondents benefited indirectly from the MIDP.

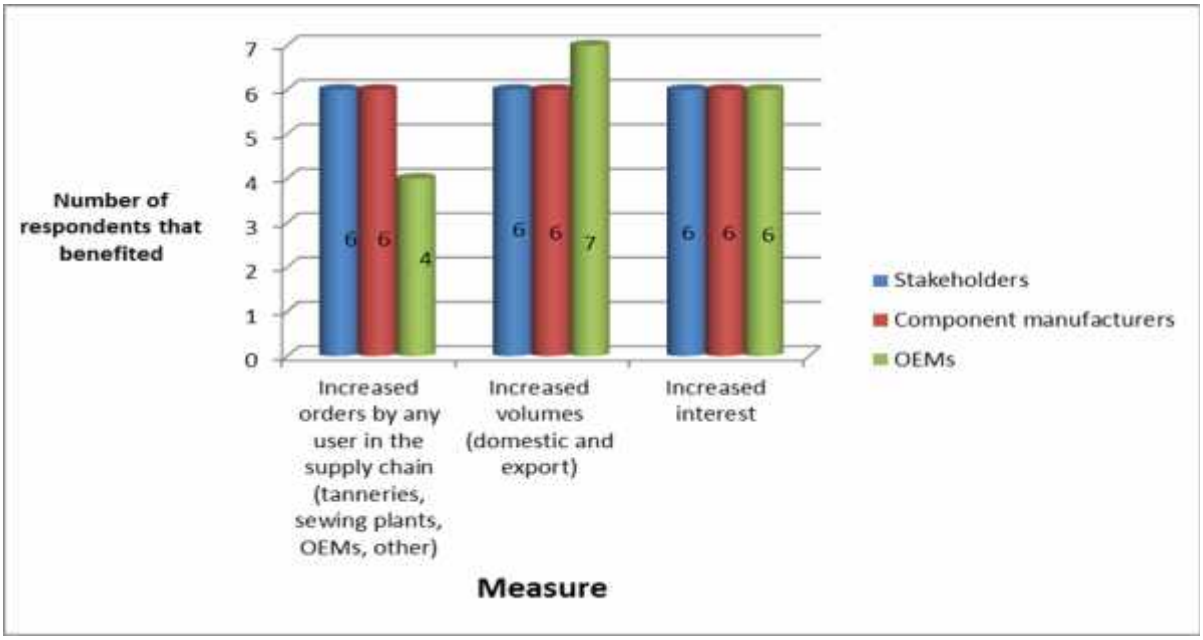

Figure 7.14: Respondents that benefited indirectly from the MIDP

Figure 7.14 revealed that all six stakeholders and component manufacturers benefited in all three measures indirectly from the MIDP in terms of their role in the automotive leather manufacturing and supply chain. The response to this question reveals that the stakeholders' and component manufacturers' main benefits were obtained indirectly. Only four OEMs benefited indirectly from the MIDP via increased orders by any user in the supply chain, all seven OEMs benefited indirectly from the MIDP via increased volumes, and only six OEMs benefited indirectly from the MIDP via increased interest. The response to this reveals that the OEMs' main benefits were directly via the IRCC claims, as well as indirectly from all three measures.

Question 25 was used to determine the value of the MIDP to promote each respondents' company since it was implemented in 1995. For this question, the researcher used a four point Likert rating scale from 1 (not successful at all) to 4 (very successful) to obtain the most considered opinion. Figure 7.15 reveal the results of the respondents.

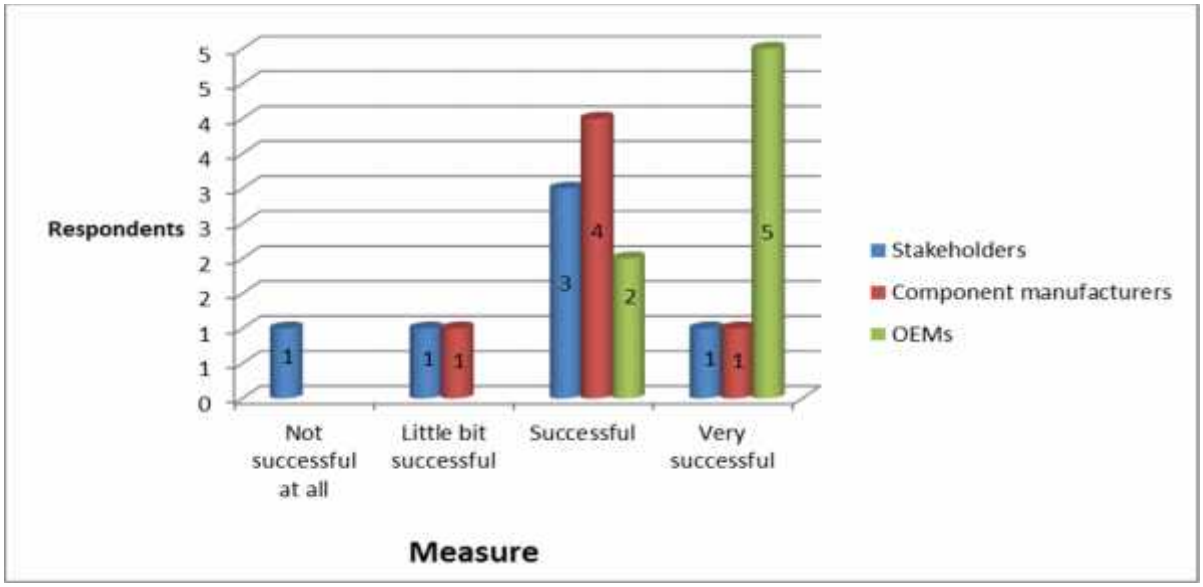

Figure 7.15: Value of the MIDP to promote the companies in particular since it was implemented in 1995

Figure 7.15 revealed that the stakeholders indicated that the MIDP was successful (a mean of 2.66) in promoting their companies because they reaped the indirect benefits of the MIDP.

Figure 7.15 further revealed that all the component manufacturers indicated that the MIDP was successful (a mean of 3) in promoting their companies because of the indirect benefits that they received. As explained in chapter 3, under the MIDP many of the domestic automotive component manufacturers secured links with European-based companies, which was largely because the German OEMs had put pressure on their European suppliers to form links with South African companies when they instituted their export programmes. The EU has extensively displaced its own production to lower-cost developing countries such as South Africa.

Figure 7.15 further revealed that all the OEMs indicated that the MIDP was very successful (a mean of 3.71) in promoting their companies, especially the European-based OEMs because they were all foreign owned when the MIDP was implemented and, therefore, they were able to reap the programme's benefits first. The USA-

based and Japanese-based OEMs concurred that, because of the rationalisation of vehicle platforms, economies of scale could be achieved. The ability to offset import duty liability through the duty free allowance and IRCCs, generated through the export of automotive components, was fundamental to their business model.

Question 26 was used to determine the value of the MIDP to promote value addition up to the final stages of the supply chain since it was implemented in 1995. For this question, the researcher used a four point rating scale from 1 (not successful at all) to 4 (very successful) to obtain the most considered opinion. Figure 7.16 reveal the results of the respondents.

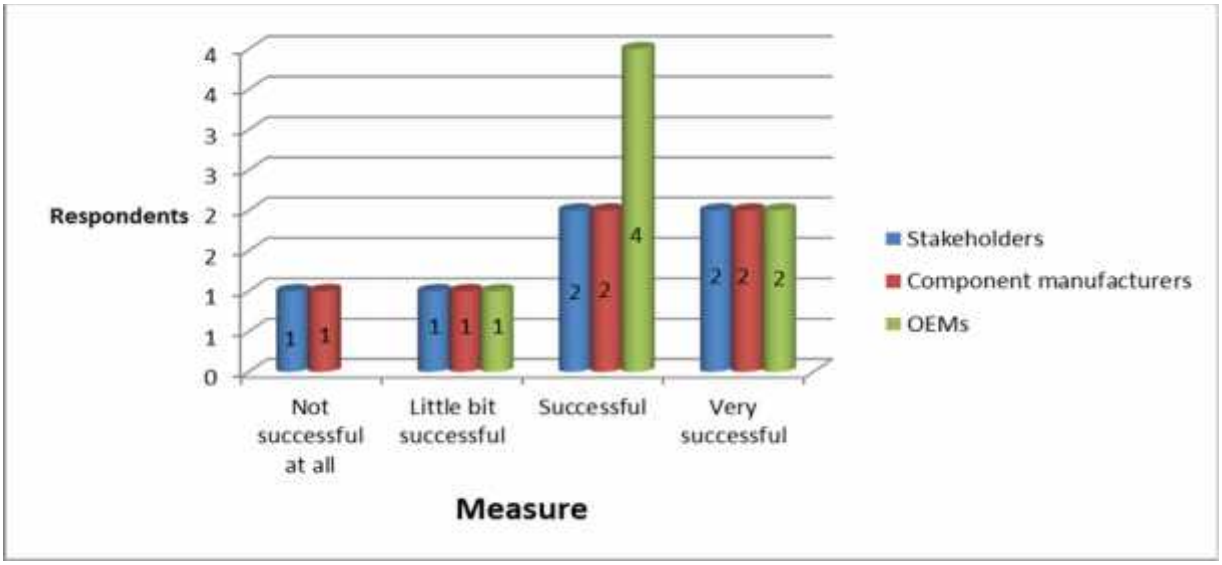

Figure 7.16: Value of the MIDP to promote value addition up to the final stages of the supply chain in particular since it was implemented in 1995

Figure 7.16 revealed that the stakeholders indicated that the MIDP was successful (a mean of 2.83) in promoting value addition up to the final stages of the supply chain because of the indirect benefits obtained via the MIDP.

Figure 7.16 revealed that the component manufacturers indicated that the MIDP was successful (a mean of 2.83) in promoting value addition up to the final stages of the supply chain because of the direct and indirect benefits obtained via the MIDP.

Because the MIDP incentivised exports premised on its local content value, automotive leather was heavily sought after because leather makes up 60% of the cost of the final product in the manufacturing of stitched leather seat parts. It is for this reason that automotive leather manufacturers took advantage of the MIDP and South Africa was much more attractive to OEMs worldwide to retain, or grow, their manufacturing operations in South Africa.

Under the MIDP, only sewing plants received the IRCCs on direct exports. The sewn sets were mainly being exported via OEMs, and then the OEMs had contractual arrangements with the sewing plants to obtain the IRCCs. The OEMs had an incentive under the MIDP to place their business in South Africa and they were actively supporting leather seats because of the IRCCs they were receiving which they could then use to offset the duties on imported automotive components or vehicles. This had resulted in more business for the sewing plants, which in turn resulted in more business for the tanneries and the whole value chain benefited.

Figure 7.16 further revealed that the OEMs indicated that the MIDP was successful (a mean of 3) in promoting value addition up to the final stages of the supply chain. The import-export complementation scheme allowed the OEMs to use the IRCCs to offset duties on vehicles and automotive components they wanted to import. The MIDP assisted the South African OEMs to become fully integrated into the global networks of their parent companies.

Question 27 dealt with whether respondents were registered under the APDP. Figure 7.17 reveal the results of the respondents.

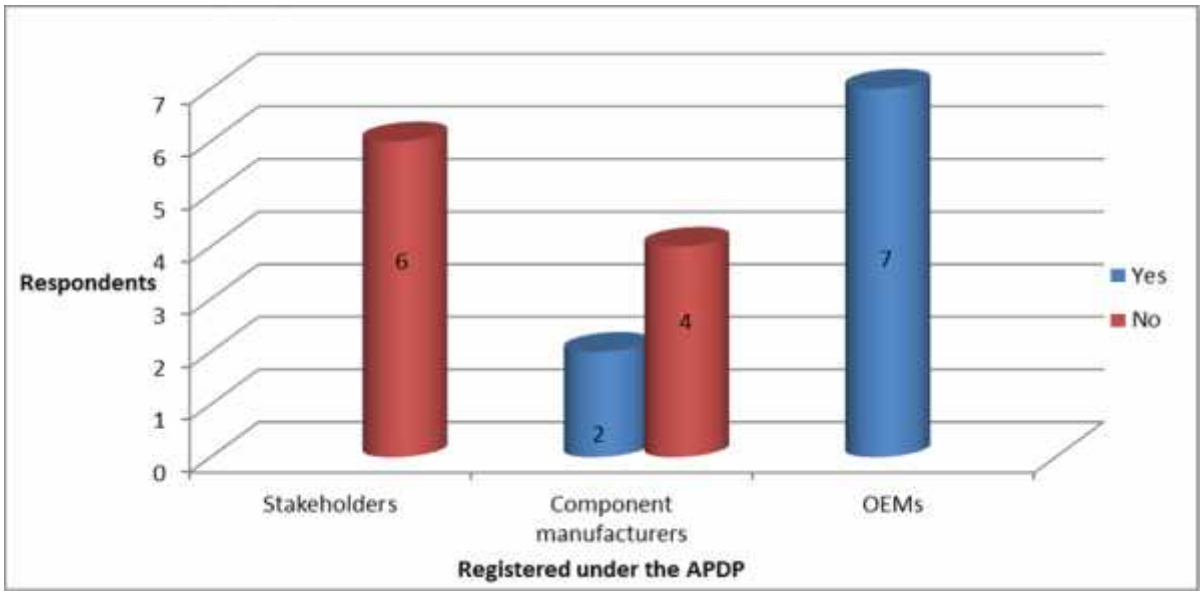

Figure 7.17: Registered under the APDP

Figure 7.17 revealed that no stakeholders are registered under the APDP. These stakeholders also were not registered under the MIDP. The stakeholders not registered under the APDP do not comply with the eligibility requirements under the APDP, as described in Chapter 2. The aim of including the non-APDP registered companies was to obtain their views and perceptions as they were benefiting indirectly from the APDP. Only two component manufacturers are registered under the APDP. The reason for the drop of three component manufacturers in registration to the APDP in comparison to the MIDP is that two major automotive tanneries have shut operations, and one component manufacturer stated that it is not exporting directly and, therefore, does not have to register under the APDP. All seven OEMs are registered under the APDP.

Question 28 dealt with whether respondents are benefiting directly from the APDP via PRCCs or indirectly. Figure 7.18 and figure 7.19 reveal the respondents' results.

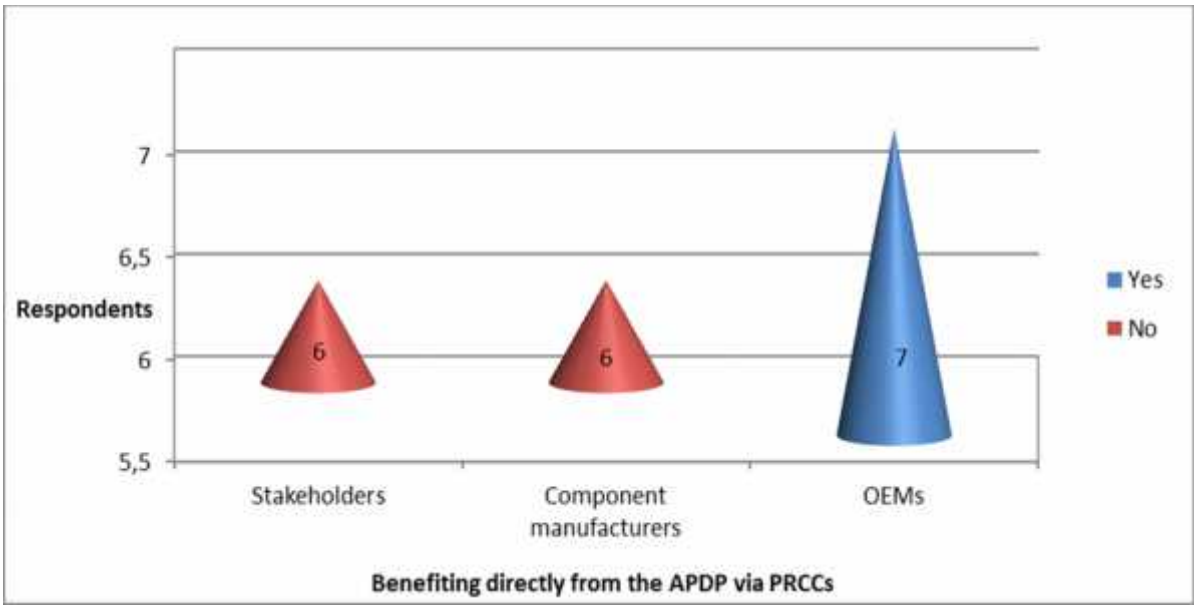

Figure 7.18: Benefiting directly from the APDP via PRCCs

Figure 7.18 revealed that all six stakeholders stated that they do not benefit from the APDP directly via PRCCs, because they do not manufacture products that are eligible for the APDP benefits. All six component manufacturers stated that they do not benefit from the APDP directly via PRCCs. Even though two component manufacturers are registered under the APDP, they do not receive any benefits in the form of PRCCs because if the component suppliers supply the OEMs, they will not receive any benefit, but only if they export themselves. The problem is that when the component manufacturers do export to the main automotive markets, they are not competitive enough because of the logistical costs disadvantage, and because the APDP incentive is much lower compared to the previous MIDP benefit. All seven OEMs stated that they do benefit from the APDP directly in the form of PRCCs. Figure 7.19 reveal the results of whether the respondents are benefiting indirectly from the APDP.

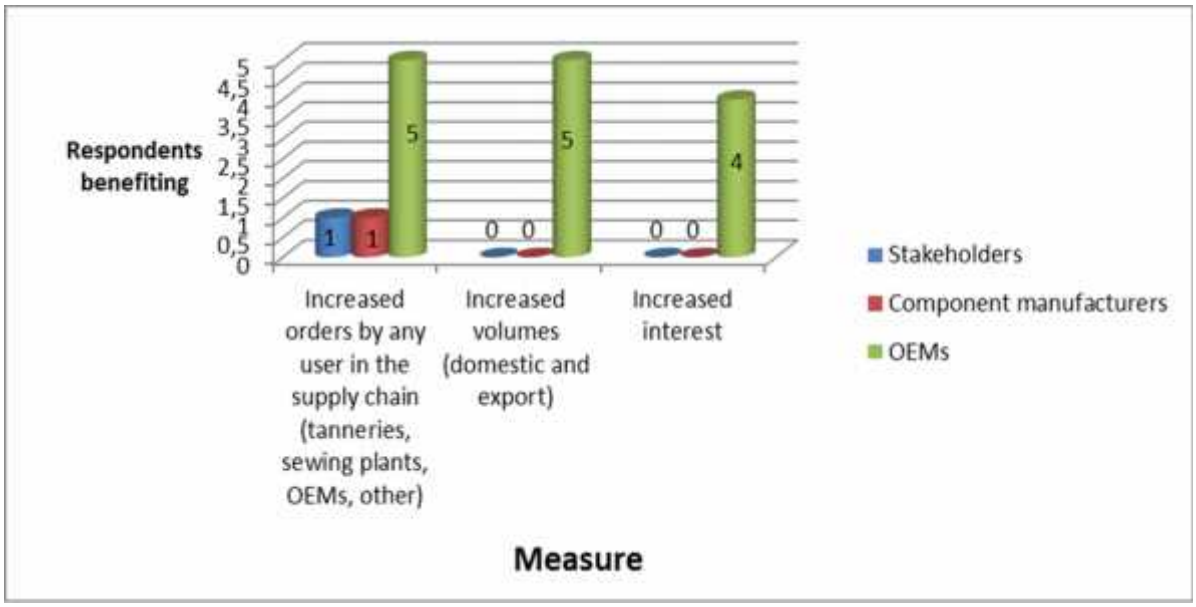

Figure 7.19: Respondents benefiting indirectly from the APDP

Figure 7.19 revealed that only one stakeholder and one component manufacturer benefit indirectly from the APDP by having an increase in orders as part of the leather supply chain. These two respondents stated that they have started supplying material in to the group and this cannot be totally attributed to the APDP, it just happened at the time of the APDP. All six stakeholders and all six component manufacturers do not benefit indirectly from the APDP in the other two measures. Because of the reduced benefits under the APDP, it is perceived that the stakeholders and component manufacturers have lost the indirect benefits that they received under the MIDP. Five OEMs benefit indirectly from the APDP via increased orders by any user in the supply chain, again only five OEMs benefit indirectly from the APDP via increased volumes, and four OEMs benefit indirectly from the APDP via increased interest. The responses of the OEMs in this regard are mixed; the one European-based OEM that is a major user and the other that is a moderate user of automotive leather, agree that there has been an increase in all three measures. The other European-based OEM that is a major user of automotive leather disagrees with

this. The results also apply to the USA-based OEMs and Japanese-based OEMs who are moderate users of automotive leather because, whilst one USA-based or Japanese-based OEM might be benefiting in one measure, the other USA-based or Japanese-based OEM is not benefiting in the same measure and vice versa. The responses by the OEMs generally illustrate the changes in global sourcing decisions by the head offices. The most important trend that can be identified is that the OEMs' perceived indirect benefits under the MIDP have remained fairly similar under the APDP in respect of the abovementioned three measures.

Question 29 was used to determine the perceived contribution of the APDP to promote each respondents' company in particular since its implementation in 2013. For this question, the researcher used a four Likert point rating scale from 1 (not successful at all) to 4 (very successful) to obtain the most considered opinion. Figure 7.20 reveal the results of the respondents.

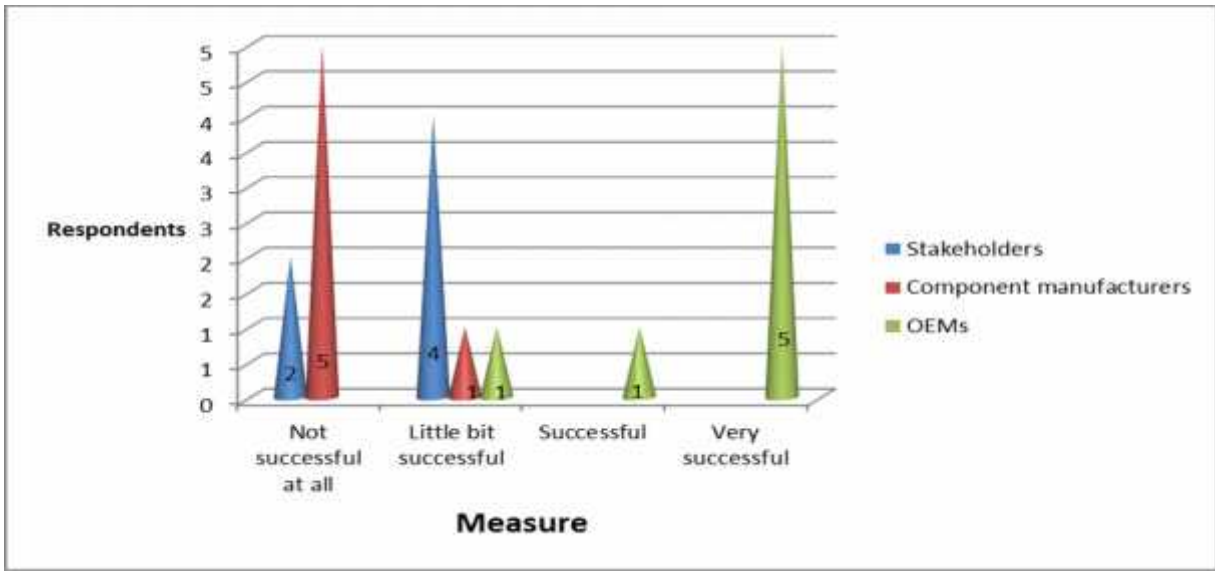

Figure 7.20: Perceived contribution of the APDP to promote the companies in particular since its implementation in 2013

Figure 7.20 revealed that the stakeholders indicated that the APDP has only been minimally successful (a mean of 1.66) in promoting their companies. These respondents are not directly linked, or dependent on, the APDP or the incentives

thereunder and would, therefore, be relatively unaffected by the automotive policy regime.

Figure 7.20 further revealed that the component manufacturers indicated that the APDP has not been successful (a mean of 1.16) in promoting their companies. As explained in chapter 2, automotive leather is one of the automotive components that are regarded as being vulnerable under the APDP because of the difference in calculation in benefits from the MIDP to the APDP. This is illustrated by the closure of two major automotive tanneries and the relocation, from South Africa to Lesotho, of two active sewing plants with the aim to reduce manufacturing costs. There has been a loss in export business and employment by the two active automotive tanneries and sewing plants.

Figure 7.20 further revealed that with regards to the OEMs, the APDP has been very successful (a mean of 3.57). As explained in chapter 2, the calculation of benefits differs for the component manufacturers and the OEMs. The OEMs are much happier because their incentives from the APDP are determined by the level of vehicle production. The APDP vision is set to manufacture 1.2 million vehicles per annum by the year 2020, which paves the way for the OEMs because to achieve this the incentives for the OEMs must be higher so that, in order for the government to achieve their vision, the OEMs need to be stimulated to manufacture more. As explained, the trend that is identified is that the OEMs and the component manufacturers have benefited from the MIDP, but under the APDP it is perceived that the OEMs are benefiting more than the component manufacturers.

Question 30 was used to determine the perceived contribution of the APDP to promote value addition up to the final stages of the supply chain since its implementation in 2013. For this question, the researcher used a four point Likert rating scale from 1 (not successful at all) to 4 (very successful) to obtain the most considered opinion. Figure 7.21 reveal the results of the respondents.

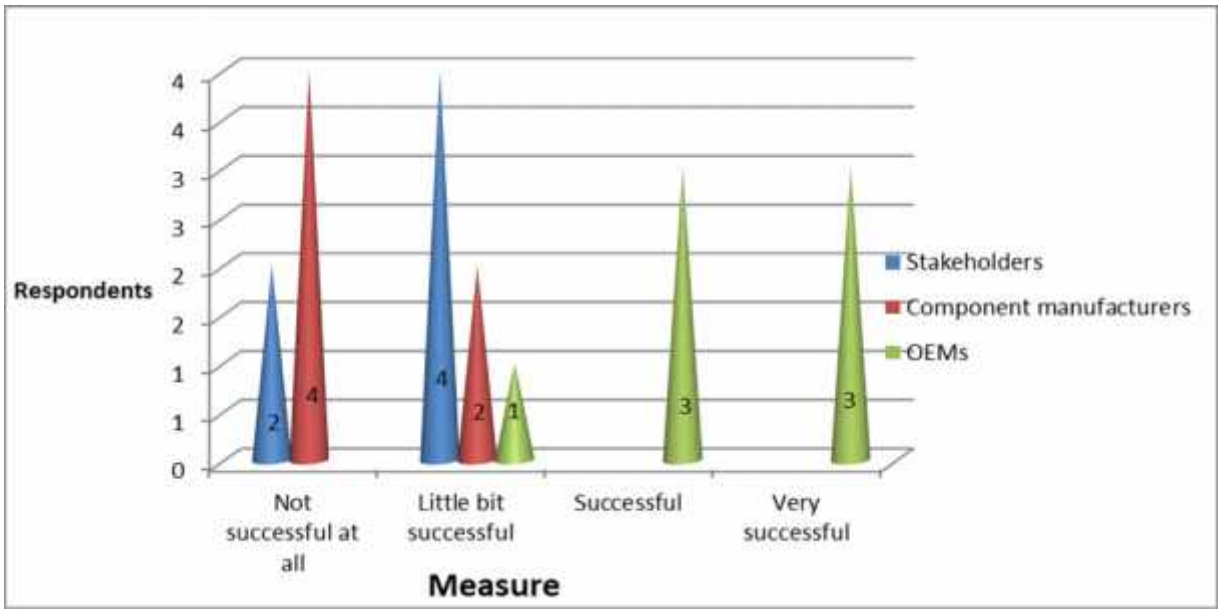

Figure 7.21: Perceived contribution of the APDP to promote value addition up to the final stages of the supply chain since its implementation in 2013

Figure 7.21 revealed that the stakeholders indicated that the APDP has only been minimally successful (a mean of 1.66) in promoting value addition up to the final stages of the supply chain. Again, these stakeholders are not directly benefiting from the APDP nor are they directly dependent on, or related to, the APDP as part of the leather supply chain and APDP eligibility criteria.

Figure 7.21 further revealed that the component manufacturers indicated that the APDP has not been successful (a mean of 1.33) in promoting value addition up to the final stages of the supply chain. As explained in chapter 2, the Production Incentive is available to final manufacturers, and the calculation is based on the value added at the point of sale on South African manufactured motor vehicles and eligible automotive components under the APDP. Within the automotive supply chain, this incentive is available to the final manufacturer, either the OEM or, if it is a replacement part or a component export, then the component manufacturer will receive the incentive subject to the APDP eligibility criteria of supplying 25% or R10 million of annual turnover to an OEM supply chain, as described in Chapter 2. So

with regards to the automotive leather value chain, only the sewing plants will receive PRCCs on exports, however, all the links in this value chain concur that the PRCCs are perceived as too low and, therefore, the APDP is not helpful in promoting value addition within this value chain. It is worth noting that under the APDP, all component segments, such as automotive leather where the material costs represent a high percentage of the final cost, result in a very low value addition because of the APDP's incentive formula, and these products have qualified for vulnerable sector support under the APDP. As highlighted in chapter 4, automotive leather had been a top component being exported under the MIDP, but is now deemed vulnerable and struggling to exist under the APDP.

Figure 7.21 further revealed that the OEMs indicated that the APDP has been successful (a mean of 3.28) in promoting value addition up to the final stages of the supply chain. As explained in question 29, the OEMs are much happier under the APDP because the focus has shifted to them manufacturing higher volumes in order to achieve the vision of manufacturing 1.2 million vehicles by the year 2020. It is perceived that the component manufacturers are not better off under the APDP. It is also worth noting at this point that even though the objectives of the MIDP did not include promoting value addition, the MIDP had performed better in promoting localisation and value addition because the industry at large benefited. However, the irony is that the APDP's focus is to promote value addition in terms of its vision to double vehicle manufacturing in the country to 1.2 million units per annum by 2020, with an associated deepening and broadening of the component basket in the country. However, the APDP is actually perceived as performing worse than the MIDP because of developments to date under the APDP in sectors such as the leather sector. It should, however, be taken into account that the APDP was only implemented in 2013.

Question 31 dealt with the two critical and key vision objectives of the APDP. The respondents had to rate the perceived impact of these two key objectives, in terms of the criteria stated, on the domestic leather industry. For this question, the researcher used a six Likert point rating scale from 1 (no impact) to 6 (very high impact) to

obtain the most considered opinion. Table 7.7 reveal the respondents' results for the first key objective, which is to increase manufacturing volumes to 1.2 million units per annum by the year 2020.

Table 7.7: Rating of the first key objective of the APDP, which is to increase manufacturing volumes to 1.2 million units per annum by the year 2020.

Mean and Standard Deviation (SD)						
Criteria	**Stakeholders**	**N = 6**	**Component manufacturers**	**N = 6**	**OEMs**	**N = 7**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**
Generate business with an increase in sales (domestic and export)	2.17	0.90	3.17	1.46	4.86	1.36
Attract investments (domestic and foreign)	1.83	0.69	3.17	1.54	4.57	1.29
To promote value addition up to the final stages of the supply chain	2	0.57	2.5	1.71	4.57	1.28
Adhering to OEMs' strict requirements and regulations	2.17	1.07	2.33	1.10	4	1.36
Increasing the competitiveness of domestic manufacturers	2.17	0.69	2.33	1.10	4.14	1.25
To achieve economies of scale	1.83	0.37	2.33	1.10	4.43	1.5
To provide alternate opportunities within the domestic leather industry	1.83	0.69	1.83	1.12	3.86	0.99

Table 7.7 revealed that the stakeholders had a mean of less than 2.5 indicating that they perceive little impact on the domestic leather industry using the criteria listed for this key objective. This is evidence that these stakeholders are not directly related to the automotive industry under the APDP and are merely providing insight into the industry. Because of their synergies with the automotive industry in general and the leather sector specifically they, however, do benefit indirectly to some extent in respect of increased orders and increased volumes.

Table 7.7 further revealed that the component manufacturers had a highest mean of just over 3 and then dropping to just above 1.8, indicating that for certain aspects they perceive a moderate, or small, impact on the domestic leather industry using the criteria listed for this key objective. As far as this objective is concerned using the criteria listed, the consensus amongst the component manufacturers is that this key objective still has to be realised under the APDP because all the points mentioned had been substantially reached and achieved under the MIDP. As far as economies of scale are concerned, exports of leather seat parts have been substantially declining since the introduction of the APDP and the reduced benefit makes the industry vulnerable. Potential opportunities for growing the domestic market with regards to the higher vehicle manufacturing volumes are also perceived to be low.

Table 7.7 further revealed that the OEMs had a lowest mean of over 3.8 rising up to over 4.8 for certain aspects, indicating that they perceive a moderate to high impact on the domestic leather industry using the criteria listed for this key objective. This is evidence that the APDP and its key objective in doubling vehicle manufacturing to 1.2 million units by the year 2020 is focused on the OEMs. It is worth noting that the reason why the OEMs might perceive this objective to be of a moderate to high impact on the domestic leather industry is that they are judging their own business model and successes under the APDP and relating it to the domestic leather industry and potential increased localisation opportunities, which remain subject to global sourcing principles and the world-best-prices principle.

Table 7.8 reveal the results of the respondents for the second key objective, which is to substantially broaden and deepen the components supply chain.

Table 7.8: Rating of the second key objective of the APDP, which is to substantially broaden and deepen the components supply chain.

Mean and Standard Deviation (SD)						
Criteria	**Stakeholders**	**N = 6**	**Component manufacturers**	**N = 6**	**OEMs**	**N = 7**
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**
Generate business with an increase in sales (domestic and export)	**2**	**0.82**	**2.67**	**1.25**	**4.57**	**1.49**
Attract investments (domestic and foreign)	**1.67**	**0.47**	**2.5**	**1.12**	**4.43**	**1.40**
To promote value addition up to the final stages of the supply chain	**2**	**0.57**	**2.5**	**1.12**	**4.14**	**1.36**
Adhering to OEMs' strict requirements and regulations	**2**	**1**	**2.5**	**1.12**	**3.57**	**1.77**
Increasing the competitiveness of domestic manufacturers	**2**	**0.57**	**2.17**	**0.78**	**4**	**1.51**
To achieve economies of scale	**2**	**0.57**	**2.33**	**1.10**	**4.14**	**1.39**
To provide alternate opportunities within the domestic leather industry	**2**	**0.71**	**2.33**	**1.10**	**3.72**	**1.16**

Table 7.8 revealed that the stakeholders had a mean of 2 and below, indicating that they perceive little impact on the domestic leather industry using the criteria listed for this key objective. Again, this is evidence that these stakeholders are not directly related or linked to the APDP although they benefit indirectly from their synergies with the automotive industry in general and, the leather sector in particular, via increased orders and increased volumes.

Table 7.8 further revealed that the component manufacturers have a highest mean of 2.5 and then dropping to 2.17 for other related factors, indicating that they perceive little impact on the domestic leather industry using the criteria listed for this key objective. This key objective has not been realised at present for various reasons. The APDP is still relatively new as it was only implemented since 2013, industrial action in the automotive industry in 2013 impacted the industry significantly with vehicle manufacturing losses of 58 000 units registered in 2013, and the APDP promotes value addition that rewards only the final manufacturers, and the incentives are quite low compared to the MIDP. There is no incentive at each link of the value chain where value addition takes place under the APDP. The APDP only rewards the last link in the value chain even though value addition has taken place throughout the value chain, and in the automotive leather value chain the last link does not add the biggest amount of value addition. As highlighted in chapter 3, over 70% of value addition takes place before the last link of the automotive leather value chain, and is perceived to go unnoticed and gets no direct reward. Even the improved investment incentive in the form of the AIS for automotive component manufacturers, or the potential of higher vehicle manufacturing volumes up to 2020 seem to be perceived as having a low to moderate impact on the component manufacturers in terms of the objective criteria listed. This could be attributed to international competitiveness issues in the supply chain, and losing business to competitors abroad that have sustainable competitive advantages, such as closeness to the market place.

Table 7.8 finally revealed that the OEMs had a lowest mean of 3.57 rising up to over 4.57 on other related factors, indicating that they perceive a moderate to high impact on the domestic leather industry using the criteria listed for this key objective. The

OEMs are highlighting their intent to localise more with higher levels of value addition in the country to avoid logistical costs and currency volatility. Higher vehicle manufacturing volumes in the country would relate to a positive impact on all the objective criteria listed. The Automotive Supply Chain Competitiveness Initiative's (ASCCI) projects and the NAAMSA OEM Purchasing Council are playing a significant role in focusing on retaining and expanding localisation and supplier competitiveness initiatives. It is generally regarded by the OEMs that the future sustainability of the automotive industry in South Africa depends on a strong supply base. The benefits of the MIDP, as well as the current APDP, are based on localisation and value addition in the country and the OEMs need to drive the process. However, component suppliers sometimes have different perceptions of the key roles that the OEMs play in the supply chain and the global sourcing principles applied by head offices on the domestically-based OEMs.

Question 32 was an open-ended question used to determine the level of impact to the respondents' company because of the change of automotive policy from the pre-MIDP period to the MIDP period. Basic content analysis was done on the responses and table 7.9 summarises the crux of the replies from all the respondents.

Table 7.9: Summary of the responses from all the respondents (pre-MIDP to MIDP).

Stakeholders	Effect
Change from pre-MIDP to MIDP.	There was strong growth. The indirect benefits that were received were through the support of OEMs to the sewing plants to export stitched leather seat parts and the link to local content increased orders and sales for the ATCG. The indirect benefits received assisted greatly due to growth in the automotive sector. There was, therefore, a high impact on the business operations for the stakeholders.
	Material intensive industries like automotive leather flourished and constituted over 80% of all components exported. There was a significant increase in orders because of the local content requirements.
Component manufacturers	**Effect**
Change from pre-MIDP to MIDP.	Increased business due to component exports by the OEMs as well as local beneficiation due to the use and increase in local content.
	There was an increase in contracts from different OEMs domestically and internationally. Employment levels were over 1 000 employees.
	Growth to R1.4 billion per annum revenue. In addition, approximately 1400 employees gained employment.
OEMs	**Effect**
Change from pre-MIDP to MIDP.	There has been a positive impact with increases in investments, volumes and production. Rationalisation of locally manufactured vehicle platforms, high local production and exports.
	Huge increase in component exports from South Africa and concentrating to assemble one vehicle platform in South Africa (but in much higher volumes) compared to pre-MIDP period.
	The impact of the MIDP since 1995 has been hugely positive if taking the growth in the number of vehicles being exported by the motor industry as an indication. The ability to offset import duty liability through the duty free allowance and IRCCs generated through the export of automotive components was fundamental to the business model pursued and allowed a competitive advantage over fully imported vehicles.

Table 7.9 revealed that the change of policy to the MIDP can be regarded as being generally positive for the component manufacturers who were dependent on the MIDP benefits, as well as being positive for the stakeholders who benefited indirectly via the MIDP. As highlighted in chapter 2, total employment within the components manufacturing have increased from 60 800 persons in 1995 to 70 000 persons in 2012, representing an average increase of more than 15%. Total employment within the retail motor industry increased from 128 000 persons in 1995 to 200 000 persons in 2012, representing an average increase of more than 56%. Chapter 4 highlights that not only stitched leather seat parts have been exported in significant volumes, but that all components have grown considerably in terms of this under the MIDP.

The OEMs also enjoyed the advantages of the MIDP and it can be regarded that the MIDP had been positive to them and their business models at that time. As highlighted in chapter 2, under the MIDP a significant amount of positive outcomes and benefits had been achieved by the OEMs. To highlight a few will indicate how the MIDP had achieved its stated objectives and how the industry had benefited. OEMs' capital expenditure increased from R847 million in 1995 to R4.7 billion in 2012. Automotive exports have been growing at a compounded annual rate of 19.5% since 1995 to 2012. The total nominal export value of vehicles and automotive components between 1995 and 2012 amounted to R772.2 billion.

The conclusion derived from this question and as highlighted in chapter 2, is that the MIDP has had a positive impact on the industry at large because the benefits were spread more evenly between all the members of the supply chain and not just on any specific stakeholder, component manufacturer or OEM.

Question 33 was an open-ended question used to determine the level of impact to the respondents' company due to the change of automotive policy from the MIDP period to the APDP period to date. Basic content analysis was done on the responses and table 7.10 summarises the crux of the replies from all the respondents.

Table 7.10: Summary of the responses from all the respondents (MIDP to APDP).

Stakeholders	Effect
Change from MIDP to APDP.	Decrease in domestic orders due to lack of support from OEMs for local sewing plants to place orders for stitched leather seat parts for the export market. The companies have now lost the indirect benefits due to the change in policy to the APDP.
	The APDP is a disaster for high material intensive industries such as automotive leather and catalytic convertors because the APDP actually penalises these industries due to the PI formula, the material value constitutes a large part of the end selling price and it is much lower under the APDP. Total downstream value chain employment and contracts have decreased by well over 60% in the spate of just five years (the last few years of the MIDP and the switch-over to the APDP.
Component manufacturers	**Effect**
Change from MIDP to APDP.	There has been a steady decline in business and the viewpoint in general is negative. With the withdrawal of component exports by two of the major OEMs, the companies' volumes have decreased significantly and it is thought that the OEMs are getting sufficient credits on their own without component supplies. The company now exports cut-sets but does not benefit under the APDP, although some value is added and local beneficiation as well as job creation takes place.
	There has been a loss of more than R1 billion revenue per annum for this sector. In addition approximately 1600 employees lost their jobs. There was also a loss of contract business to overseas markets. Loss in employment to a situation where this group employs less than 500 employees. Two automotive leather manufacturers are now relocating to Lesotho.
OEMs	**Effect**

Change from MIDP to APDP.	Very positive as it is linked to production and increased exports. Improved value addition, but reduced local content. The end result is the reduction of the viability of the domestic component manufacturers.
	The APDP programme is a scale of production and value addition based programme as opposed to the MIDP programme which was export focused. The new programme supports the governments' objective of manufacturing a higher number of vehicles of 1.2 million units by the year 2020. The phasing down of the benefits on the component exports is of specific concern especially regarding those sectors whose products are classified as vulnerable.

Table 7.10 revealed that the change of policy from the MIDP to the APDP can be regarded as being generally negative if not disastrous for the component manufacturers and even the stakeholders do not benefit directly or indirectly from the APDP. The focus of the APDP is on the OEMs so that the vision of manufacturing 1.2 million vehicles by the year 2020 becomes a reality, and the only way to achieve this is to stimulate the OEMs in such a manner that their incentives are linked to production, which supports this vision under the APDP. The trend that is seen, from the above discussion, is that the OEMs have benefited under the MIDP and now are benefiting again under the APDP, but that the component manufacturers and stakeholders are losing out in the process.

The Japanese-based, USA-based and European-based OEMs understand the volume requirements under the APDP, which supports their business model. Although South Africa is manufacturing more vehicles under the APDP in line with achieving the vision of manufacturing 1.2 million vehicles by the year 2020, it is more important to note that this vision is coming at a real cost to the South African component manufacturers and more specifically the automotive leather manufacturers. These sectors of the supply chain may be extinct by the year 2020, despite higher vulnerable sector support under the APDP. It should, however, be noted that the APDP is still a relatively new programme while an early review of the programme commenced in 2014 to track its progress, which will result hopefully in

possible enhancements to the programme. The recommendations in this regard were still awaited at the time of this research. Other factors impacting the automotive industry in general and the leather industry in particular, which should also be noted, include the impact of the industrial action in the automotive industry in 2013 during the first year of the APDP's implementation. There were also new model introductions by two European-based, one USA-based and one Japanese-based OEM in South Africa since 2013 with potential changes in global sourcing decisions by the head offices, as well as the increasing cost of doing business in the country because of higher electricity costs, as well as the non-regular supply of electricity, amongst others. It is clear that following the impact of the global financial crisis in 2008, the relentless focus on costs by the OEMs have intensified globally.

Having done and reported on the results of the study, it led to same trends that need to be further tested. Thus, some hypotheses were developed and tested using inferential statistics and will be discussed next.

7.5 Additional Analysis: Inferential Analysis of the Research Findings and Hypothesis Testing

The purpose of the inferential analysis is to test hypotheses derived from the primary and secondary objectives of the study. The Kruskal-Wallis, Pearson Chi-Square and Mann-Whitney tests were used to test the hypotheses. This analysis should lead to a better understanding of the impact of South African automotive policy changes on the domestic leather industry. Different hypotheses will be tested in order to gain a better understanding of the research objectives.

The Kruskal-Wallis test has been used to test for differences between the OEMs, the component manufacturers and the stakeholders with regards to:

- The value of the MIDP to promote their companies in particular since it was implemented in 1995.

- The value of the MIDP to promote value addition up to the final stages of the supply chain since it was implemented in 1995.
- The value of the APDP to promote their companies in particular since it was implemented in 2013.
- The value of the APDP to promote value addition up to the final stages of the supply chain since it was implemented in 2013.
- Their viewpoints on the impact of the two key vision objectives of the APDP.

The Mann-Whitney test, which is similar to the Kruskal-Wallis test, is used to test for differences between two groups. The Mann-Whitney test will be used to test for differences between the component manufacturers and the stakeholders with regards to:

- The impact of the challenges that their companies have been subjected to for the period 1995 – 2012 during the use of the MIDP.

The Pearson Chi-Square test is used when both variables are nominal. It is used to calculate the probability that a relationship between two variables, found in a sample, is owing to chance (random sampling error). It does this by measuring the difference between the actual frequencies in each cell of a table and the frequencies one would expect to find if there were no relationship between the variables in the population from which the (random) sample has been drawn. The larger these differences are, the less likely it is that they occurred by chance. This test will be used with regards to:

- Whether the role-players were registered under the MIDP and if they benefited directly or indirectly from the MIDP.
- Whether the role-players are registered under the APDP and if they benefit directly or indirectly from the APDP

7.5.1 HO1: Difference between component manufacturers, stakeholders and OEMs with regards to the value of the MIDP to promote their companies in particular since it was implemented in 1995.

The following hypothesis was formulated:

H_0: There is no difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **value of the MIDP to promote their companies** in particular since it was implemented in 1995.

H_1: There is a difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **value of the MIDP to promote their companies** in particular since it was implemented in 1995.

The Kruskal-Wallis test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.11: Kruskal-Wallis test results for the difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the value of the MIDP to promote their companies in particular since it was implemented in 1995.

	Value of the MIDP to promote their companies in particular since it was implemented in 1995.
Chi-Square	5.869
df	2
Asymp. Sig.	.053

The results indicate that there is not a statistically significant difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the value of the MIDP to promote their companies in particular since it was implemented in 1995 (p=0.053). This, therefore, implies that all three groups concur that the MIDP has played a meaningful role to promote their companies in particular since it was implemented in 1995.

Thus the null hypotheses cannot be rejected.

However, the mean ranks indicate that the OEMs received more value from the MIDP (mean rank = 13.71) in promoting their companies than the stakeholders (mean rank of 8.42) and component manufacturers (mean rank of 7.25).

7.5.2 HO2: Difference between component manufacturers, stakeholders and OEMs with regards to the value of the MIDP to promote value addition up to the final stages of the supply chain since it was implemented in 1995.

The following hypothesis was formulated:

H_0: There is no difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **value of the MIDP to promote value addition** up to the final stages of the supply chain since it was implemented in 1995.

H_1: There is a difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **value of the MIDP to promote value addition** up to the final stages of the supply chain since it was implemented in 1995.

The Kruskal-Wallis test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.12: Kruskal-Wallis test results for the difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to the value of the MIDP to promote value addition up to the final stages of the supply chain since it was implemented in 1995.

	Value of the MIDP to promote value addition up to the final stages of the supply chain since it was implemented in 1995.
Chi-Square	.200
df	2
Asymp. Sig.	.905

The results indicate that there is not a statistically significant difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the value of the MIDP to promote value addition up to the final stages of the supply chain since it was implemented in 1995 (p=0.905). This, therefore, implies that all three groups concur that the MIDP has played a meaningful role to promote value addition up to the final stages of the supply chain since it was implemented in 1995.

Thus the null hypotheses cannot be rejected.

However, the mean ranks indicate that the OEMs regarded the MIDP to promote more value addition up to the final stages of the supply chain since it was implemented in 1995 (mean rank = 10.71) than the stakeholders and component manufacturers (mean ranks of 9.58 for both).

7.5.3 HO3: Difference between component manufacturers, stakeholders and OEMs with regards to the value of the APDP to promote their companies, in particular, since it was implemented in 2013.

The following hypothesis was formulated:

H_0: There is no difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **value of the APDP to promote their companies** in particular since it was implemented in 2013.

H_1: There is a difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **value of the APDP to promote their companies** in particular since it was implemented in 2013.

The Kruskal-Wallis test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.13: Kruskal-Wallis test results for the difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the value of the APDP to promote their companies in particular since it was implemented in 2013.

	Value of the APDP to promote their companies in particular since it was implemented in 2013.
Chi-Square	12.902
df	2
Asymp. Sig.	.002

The results indicate that there is a high statistically significant difference (p=0.002) at the 5% level of significance between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the value of the APDP to promote their companies in particular since it was implemented in 2013. This, therefore, implies that all three groups do not concur that the APDP to date has played a meaningful role in promoting their companies in particular since it was implemented in 2013.

Thus the null hypotheses can be rejected.

Furthermore, the mean ranks indicate that the OEMs tended to receive more value from the APDP (mean rank of 15.50) in promoting their companies than the stakeholders (mean rank of 5.00) and component manufacturers (mean rank of 8.58).

7.5.4 HO4: Difference between component manufacturers, stakeholders and OEMs with regards to the value of the APDP to promote value addition up to the final stages of the supply chain since it was implemented in 2013.

The following hypothesis was formulated:

H_0: There is no difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **value of the APDP to promote value addition** up to the final stages of the supply chain since it was implemented in 2013.

H_1: There is a difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **value of the APDP to promote value addition** up to the final stages of the supply chain since it was implemented in 2013.

The Kruskal-Wallis test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.14: Kruskal-Wallis test results for the difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to the value of the APDP to promote value addition up to the final stages of the supply chain since it was implemented in 2013.

	Value of the APDP to promote value addition up to the final stages of the supply chain since it was implemented in 2013.
Chi-Square	12.385
df	2
Asymp. Sig.	.002

The results indicate that there is a high statistically significant difference (p=0.002) at the 5% level of significance between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the value of the APDP to promote value addition up to the final stages of the supply chain since it was implemented in 2013. This, therefore, implies that all three groups do not concur that the APDP to date has played a meaningful role in promoting value addition up to the final stages of the supply chain since it was implemented in 2013.

Thus the null hypotheses can be rejected.

Furthermore, the mean ranks indicate that the OEMs regard the APDP to promote more value addition up to the final stages of the supply chain since it was implemented in 2013 (mean rank of 15.57) than the stakeholders (mean rank of 5.67) and component manufacturers (mean rank of 7.83).

7.5.5 HO5: Difference between component manufacturers, stakeholders and OEMs with regards to their viewpoints on the perceived impact of the first key objective, which is to increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020 and its perceived impact on the domestic leather industry using the criteria listed.

The following hypothesis was formulated:

H_0: There is no difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **perceived impact of the first key objective, which is to increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020** and its perceived impact on the domestic leather industry using the criteria listed.

H_1: There is a difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the **perceived impact of the first key objective, which is to increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020** and its perceived impact on the domestic leather industry using the criteria listed.

The Kruskal-Wallis test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.15: Kruskal-Wallis test results for the difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the perceived impact of the first key objective, which is to increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020 and its perceived impact on the domestic leather industry using the criteria listed.

Criteria	Chi-Square	df	Asymp. Sig.
Generate business with an increase in sales (domestic and export)	7.560	2	0.023
Attract investments (domestic and foreign)	7.909	2	0.019
To promote value addition up to the final stages of the supply chain	9.124	2	0.010
Adhering to OEMs' strict requirements and regulations	5.679	2	0.058
Increasing the competitiveness of domestic manufacturers	7.722	2	0.021
To achieve economies of scale	7.450	2	0.024
To provide alternate opportunities within the domestic leather industry	9.225	2	0.010

Table 7.15 revealed that the results indicate that there is a high statistically significant difference at the 5% level of significance between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the perceived impact of the first key objective, which is to increase manufacturing

volumes to 1.2 million vehicles per annum by the year 2020 and its perceived impact on the domestic leather industry using the criteria listed.

Thus, the null hypotheses **can be rejected for all the criteria except criterion 4**, namely adhering to OEMs' strict requirements and regulations, (p value = 0.058) as listed in table 7.15. The difference between the three groups with regards to their viewpoint relates to their role in the supply chain. Except for criterion 4, there is a common view regarding the OEMs' strict requirements and regulations relating to compliance with the international standards.

Furthermore, for all the criteria related to the first key objective, except criterion 4, the mean ranks indicate that the OEMs tend to perceive the criteria as having a higher level of impact (mean ranks range between 13.93 and 14.93) than the component manufacturers and stakeholders, with the stakeholders tending to perceive these criteria to have a lower impact (mean ranks range between 5.67 and 7).

7.5.6 HO6: Difference between component manufacturers, stakeholders and OEMs with regards to their viewpoints on the perceived impact of the second key objective, which is to substantially broaden and deepen the components supply chain and its perceived impact on the domestic leather industry using the criteria listed.

The following hypothesis was formulated:

H_0: There is no difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the perceived impact of the second key objective, which is **to substantially broaden and deepen the components supply chain** and its perceived impact on the domestic leather industry using the criteria listed.

H_1: There is a difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the perceived impact of the first key objective, which is **to substantially broaden and deepen the components supply chain** and its perceived impact on the domestic leather industry using the criteria listed.

The Kruskal-Wallis test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.16: Kruskal-Wallis test results for the difference between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints on the perceived impact of the second key objective, which is to substantially broaden and deepen the components supply chain and its perceived impact on the domestic leather industry using the criteria listed.

Criteria	Chi-Square	df	Asymp. Sig.
Generate business with an increase in sales (domestic and export)	7.374	2	0.025
Attract investments (domestic and foreign)	9.289	2	0.010
To promote value addition up to the final stages of the supply chain	7.072	2	0.029
Adhering to OEMs strict requirements and regulations	2.301	2	0.317
Increasing the competitiveness of domestic manufacturers	5.761	2	0.056
To achieve economies of scale	7.285	2	0.026
To provide alternate opportunities within the domestic leather industry	7.145	2	0.028

Table 7.16 revealed that the results indicate that there is a high statistically significant difference at the 5% level of significance between the three groups (component manufacturers, stakeholders and OEMs) with regards to their viewpoints

on the perceived impact of the second key objective, which is to substantially broaden and deepen the components supply chain and its perceived impact on the domestic leather industry using the criteria listed.

Thus, the null hypotheses can be rejected for all the criteria, except criterion 4: adhering to OEMs' strict requirements and regulations (p value = 0.317), and criterion 5: increasing the competitiveness of domestic manufacturers (p value = 0.056) as listed in table 7.16. The difference between the three groups with regards to their viewpoint relates to their role in the supply chain, except for criteria 4 and 5, where there is a common view regarding the OEMs' strict requirements and regulations relating to compliance with the international standards and being cost competitive in the global market.

Furthermore, for all the criteria related to the second key objective, except criteria 4 and 5, the mean ranks indicate that the OEMs tend to perceive the criteria as having a higher level of impact (mean ranks range between 12.21 and 14.71) than the component manufacturers and stakeholders, with the stakeholders tending to perceive these criteria to have a lower impact (mean ranks range between 5.5 and 7.58).

7.5.7 HO7: Difference between component manufacturers and stakeholders with regards to their viewpoints on the impact of challenges that their companies have been subjected to from 1995 – 2012.

The following hypothesis was formulated:

H_0: There is no difference between the two groups (component manufacturers and stakeholders) with regards to their viewpoints on **the impact of challenges** that their companies have been subjected to from 1995 – 2012.

H_1: There is a difference between the two groups (component manufacturers and stakeholders) with regards to their viewpoints on **the impact of challenges** that their companies have been subjected to from 1995 – 2012.

The Mann-Whitney test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.17: Mann-Whitney test results for the difference between the two groups (component manufacturers and stakeholders) with regards to their viewpoints on the impact of challenges that their companies have been subjected to from 1995 – 2012.

Criteria	**Mann-Whitney U**	**Wilcoxon W**	Z	Asymp. Sig. (2-tailed)
Challenged by a shortage of good quality raw materials	9.500	19.500	-.548	.548
Challenged because there is no regulation on the export of raw hides and skins	11.500	21.500	-.110	.913
Challenged because of the prices of domestic raw materials	6.000	16.000	-1.369	.171
Challenged because the informal sector is not integrated within the formal supply chain	8.000	18.000	-.871	.383
Challenged because of the rising costs of conducting business in South Africa	3.500	13.500	-1.901	.057
Challenged because of the logistical costs to main automotive markets	.000	10.000	-2.631	.009
Challenged because of labour problems	6.000	16.000	-1.389	.165
Challenged because international competitors can supply main automotive markets at a cheaper price	1.000	11.000	-2.412	.016

Table 7.17 revealed that the results indicate that there is only a statistically significant difference for two criteria at the 5% level of significance between the component manufacturers and the stakeholders with regards to their viewpoints on the impact of challenges that their companies have been subjected to from 1995 – 2012.

Thus, the null hypothesis cannot be rejected for all the criteria, except for criterion 6: "challenged because of the logistical costs to main automotive markets" (p=0.009) and criterion 8, "challenged because international competitors can supply main automotive markets at a cheaper price" (p=0.016) where these two can be rejected, as listed in table 7.17. The difference between the two groups with regards to their viewpoint relates to their role in the supply chain. This means that the component manufacturers supplying the export market have been impacted to a greater extent by these challenges than the stakeholders supplying the domestic market. It must be noted that the time-frame under discussion represents the duration of the implementation of the MIDP in the South African automotive industry.

Furthermore, the mean ranks indicate that the component manufacturers tend to have a higher impact (mean rank ranges from 5.50 to 7.50) and, thus, impacted upon to a greater extent by the challenges listed than the stakeholders (mean rank ranges from 2.50 to 5.38).

7.5.8 HO8: Relationship regarding the manufacturing of leather products for the automotive industry between the three groups (component manufacturers, stakeholders and OEMs) that registered under the MIDP.

The following hypothesis was formulated:

H_0: There exists no relationship regarding **the manufacturing of leather products for the automotive industry between the three groups** (component manufacturers, stakeholders and OEMs) that registered under the **MIDP**.

H_1: There exists a relationship regarding **the manufacturing of leather products for the automotive industry between the three groups** (component manufacturers, stakeholders and OEMs) that registered under the **MIDP**.

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.18: Chi-Square test results.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	15.419[a]	2	.000

A high statistically significance (p=0.000) regarding the manufacturing of leather products for the automotive industry exists between the three groups that registered under the MIDP. This, therefore, implies that all three groups had common interests while the MIDP was in operation, however, the component manufacturers and stakeholders did not benefit directly with the products that they manufactured from being registered under the MIDP, only the OEMs benefited directly from being registered under the MIDP.

Thus, the null hypothesis can be rejected.

7.5.9 HO9: Relationship regarding the association between the type of manufacturer and whether they received any direct benefit from the MIDP.

The following hypothesis was formulated:

H_0: There exists no relationship regarding **the association between the type of manufacturer and whether they received any direct benefit from the MIDP via IRCCs.**

H_1: There exists a relationship regarding **the association between the type of manufacturer and whether they received any direct benefit from the MIDP via IRCCs.**

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.19: Measure of strength of association test results.

Cross-tabulation variables	Cramer V value	Approximate significance (p-value)	Result
	1.000	0.000	Do reject the null hypothesis at the 1% level of significance

The results indicate that an association between the type of manufacturer and whether they received any direct benefit from the MIDP via IRCCs exists. This, therefore, implies that all three groups had common interests while the MIDP was in operation, however, the stakeholders and the component manufacturers did not benefit directly from the MIDP via IRCCs, only the OEMs benefited directly from the MIDP via IRCCs.

Thus, the null hypothesis can be rejected.

7.5.10 HO10: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the MIDP via increased orders by any user in the supply chain.

The following hypothesis was formulated:

H_0: There exists no relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the MIDP via increased orders by any user in the supply chain.**

H_1: There exists a relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the MIDP via increased orders by any user in the supply chain.**

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.20: Chi-Square test results.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	6.107[a]	2	.047

The results indicate that there is not a statistical significance (p=0.047) between the type of manufacturer and whether they received any indirect benefit from the MIDP via increased orders by any user in the supply chain. This, therefore, implies that all three groups received indirect benefits from the MIDP via increased orders by any user in the supply chain.

Thus, the null hypothesis cannot be rejected.

7.5.11 HO11: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the MIDP via increased interest.

The following hypothesis was formulated:

H_0: There exists no relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the MIDP via increased interest.**

H_1: There exists a relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the MIDP via increased interest.**

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.21: Chi-Square test results.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	1.810[a]	2	.405

The results indicate that there is not a statistical significance (p=0.405) between the type of manufacturer and whether they received any indirect benefit from the MIDP via increased interest. This, therefore, implies that all three groups received indirect benefits from the MIDP via increased interest from investors and other users within the international supply chain.

Thus, the null hypothesis cannot be rejected.

7.5.12 HO12: Relationship regarding the manufacturing of leather products for the automotive industry between the three groups (component manufacturers, stakeholders and OEMs) that registered under the APDP.

The following hypothesis was formulated:

H_0: There exists no relationship regarding **the manufacturing of leather products for the automotive industry between the three groups** (component manufacturers, stakeholders and OEMs) that registered under the **APDP.**

H_1: There exists a relationship regarding **the manufacturing of leather products for the automotive industry between the three groups** (component manufacturers, stakeholders and OEMs) that registered under the **APDP.**

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.22: Chi-Square test results.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	13.652[a]	2	.001

A high statistically significance (p=0.001) exists regarding the relationship of the different manufacturers of leather products that registered under the APDP. This, therefore, implies that all three groups have common interests, however, the components manufacturers and stakeholders do not benefit directly from the APDP with the products they manufacture even though some are registered under the APDP, whilst the OEMs benefit directly from being registered under the APDP.

Thus, the null hypothesis can be rejected.

7.5.13 HO13: Relationship regarding the association between the type of manufacturer and whether they received any direct benefit from the APDP.

The following hypothesis was formulated:

H_0: There exists no relationship regarding **the association between the type of manufacturer and whether they received any direct benefit from the APDP via PRCCs.**

H_1: There exists a relationship regarding **the association between the type of manufacturer and whether they received any direct benefit from the APDP via PRCCs.**

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.23: Chi-Square test results.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	15.033[a]	2	.001

The results indicated that an association between type of manufacturer and whether they received any direct benefit from the APDP via PRCCs (p=0.001) exist. This, therefore, implies that the components manufacturers and stakeholders do not receive any direct benefit from the APDP via PRCCs whilst the OEMs are the only ones that benefit directly via PRCCs.

Thus, the null hypothesis can be rejected.

7.5.14 HO14: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the APDP via increased orders by any user in the supply chain.

The following hypothesis was formulated:

H_0: There exists no relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the APDP via increased orders by any user in the supply chain.**

H_1: There exists a relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the APDP via increased orders by any user in the supply chain.**

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.24: Chi-Square test results.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	5.698[a]	2	.058

The results indicate that there is not a statistical significance (p=0.058) between the type of manufacturer and whether they received any indirect benefit from the APDP via increased orders. This, therefore, implies that all three groups receive indirect benefits from the APDP via increased orders by any user in the supply chain.

Thus, the null hypothesis cannot be rejected.

7.5.15 HO15: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the APDP via increased volumes.

The following hypothesis was formulated:

H_0: There exists no relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the APDP via increased volumes.**

H_1: There exists a relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the APDP via increased volumes.**

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.25: Chi-Square test results.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	11.633[a]	2	.003

The results indicate that there is statistical significance (p=0.003) between the type of manufacturer and whether they received any indirect benefit from the APDP via increased volumes. This, therefore, implies that the component manufacturers and the stakeholders do not indirectly benefit from the APDP via increased volumes, but the OEMs do indirectly benefit from the APDP via increased volumes.

Thus, the null hypothesis can be rejected.

7.5.16 HO16: Relationship regarding the association between the type of manufacturer and whether they received any indirect benefit from the APDP via increased interest.

The following hypothesis was formulated:

H_0: There exists no relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the APDP via increased interest.**

H_1: There exists a relationship regarding the association between **the type of manufacturer and whether they received any indirect benefit from the APDP via increased interest.**

The Pearson Chi-Square test has been used to test the hypothesis and the results are revealed in the following table.

Table 7.26: Chi-Square test results.

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	8.686[a]	2	.013

The results indicate that there is not a statistical significance (p=0.013) between the type of manufacturer and whether they received any indirect benefit from the APDP via increased interest. This, therefore, implies that all three groups receive indirect benefits from the APDP via increased interest by other users or investors in the international supply chain.

Thus, the null hypothesis cannot be rejected.

7.6 Summary

Chapter 7 focussed on the analysis and presentation of the research results for the empirical study to establish and measure the impact of South African automotive policy changes on the domestic leather industry. The analysis was done using the same sequence as the questionnaire structure. Section A dealt with the general

information of respondents. Section B dealt with more specific company information and respondents had to answer the questions that related to them only. Section C dealt with government policy and respondents had to quantitatively rank as well as qualitatively express their views, on the two policy regimes, namely the MIDP and APDP. The purpose of the additional inferential analysis was to test hypotheses, derived from the primary and secondary objectives of the study aiming to lead to a better understanding of the impact of South African automotive policy changes on the domestic leather industry. The final chapter which follows next will deal with a discussion on the main findings, conclusions that will be drawn and recommendations relating to the results of the research will be provided.

Chapter 8

Findings and Recommendations

8.1 Introduction

The purpose of this study was to analyse and assess the impact of South African automotive policy changes (that is the move from the MIDP to the APDP) on the domestic leather industry. The empirical research results were presented in Chapter 7. Chapter 8 will provide answers to the various research objectives based on the information obtained during the empirical research process. The research objectives are stated firstly and thereafter the major conclusions of the study are revisited. The research objectives are then reviewed and will be synchronised with the findings of the study. The limitations of the study are discussed and suggestions for future research relating to the automotive industry in general, and more specifically the leather industry, will be provided. Finally, recommendations regarding the impact of South African automotive policy changes on the domestic leather industry will be provided. The findings and recommendations presented below will follow the same sequence as discussed and analysed in Chapter 7, which ties in with the structure of the questionnaire.

8.2 Objectives of the study

This chapter concludes the research process as it provides the results of the primary research. The primary objective of the study was to determine:

- The impact of South African automotive policy changes on the domestic leather industry.

More specifically, the primary aim of this study is to establish and measure the impact of South African automotive policy changes on the domestic leather industry,

by capturing the responses of the stakeholders directly involved with the industry, the automotive leather component manufacturers and the OEMs.

In addition, the secondary objectives of the study were:

- To research the supply chain used in the South African automotive industry with special reference to the South African leather manufacturers.

- To investigate the impact of the discontinuation of the MIDP policy on the role-players of the South African automotive leather industry.

- To assess the current competitive situation in the South African automotive leather market.

- To research the possible impact of the APDP policy on the South African automotive leather manufacturing industry.

- To contribute to the field of study by identifying areas of further research.

The primary and secondary objectives of this study were investigated using descriptive research by using a structured questionnaire. The methodology used to collect the data for this study was discussed in chapter 6. The collected data was analysed by means of descriptive and inferential statistics, as presented in chapter 7. The conclusions drawn and the recommendations that can be made on the basis of the analyses in chapter 7 will be discussed later in this chapter. The recommendations should be considered by all relevant role-players, such as: government officials in the South African automotive industry, as well as the stakeholders of the domestic automotive leather industry. This will assist in improving the current state of the automotive leather industry in South Africa and could lead to an increase in employment opportunities, as well as more importantly, an increase in domestic value addition, which is the primary focus of the newly introduced APDP.

8.3 Findings of the research

The study's primary objective was to assess the impact of South African automotive policy changes on the domestic leather industry. The descriptive and inferential analyses that were conducted in chapter 7 will be summarised in the sections that follow.

8.3.1 Demographic profile of the participants

The demographic profile of the majority of stakeholders, component manufacturers and the OEMs are located in the Gauteng, Kwa-Zulu Natal and the Eastern Cape provinces, which represents the three primary locations from where the manufacturers operate and through the derived demand the main reason why the automotive suppliers are in close proximity of their customers. All three groups of role-players have been operating in the South African automotive industry in excess of ten years, which is a considerable amount of time and indicates that these role-players have reached maturity in the market place.

8.3.2 Company profile for participants

It was found that five out of the six component manufacturers (83.33%) are foreign owned companies and only one component manufacturer (16.67%) is a South African owned company. It was further found that three out of the four stakeholders (75%) are South African owned companies, whilst only one (25%) is a foreign owned company. All seven OEMs are foreign owned companies operating in South Africa. The results are indicative that foreign companies make a meaningful contribution to the South African automobile industry and the South African economy by creating business and employment opportunities. The foreign ownership illustrates the global nature of the automotive industry, the global sourcing principles that apply, and hence, the shadow strategy of the component suppliers in following their main customers, the OEMs, around the world. It is clear that government along with the

policies that it sets, such as the APDP, plays a critical role in ensuring that South Africa attracts more FDI to boost the domestic economy. As explained in Chapter 5, the importance of FDI is critical for South Africa to develop the economy, to create jobs and to improve investor confidence.

8.3.3 Employment profile during the existence of the MIDP for the period 1995 – 2012 (component manufacturers and stakeholders)

It was found that five out of the six component manufacturers (83.33%) reported that their employment levels have declined and only one component manufacturer (16.67%) reported an increase in employment levels for the duration of the MIDP. It is worth noting that the decline in employment levels started towards the end of the MIDP, from the years 2008/2009 and onwards. This could be attributed to various reasons, such as the impact of the global financial crisis that occurred in 2008, the labour strikes that occurred in 2010, and the pending implementation of the APDP in 2013.

8.3.4 Impact of challenges during the existence of the MIDP for the period 1995 – 2012 (component manufacturers and stakeholders)

It was found that amongst the different challenges that the domestic component manufacturers and the stakeholders are faced with, the most severe ones are:

- The component manufacturers are significantly affected by the logistical costs to supply the main automotive markets that are globally positioned.
- The component manufacturers are negatively affected because competitors can supply main automotive markets more competitively than their South African counterparts.
- All six tanneries' supply chain has been negatively impacted because of a shortage of good quality raw materials.
- All six tanneries have been negatively affected because there is no regulation prohibiting the export of raw hides and skins from South Africa.

- All six tanneries have been subjected to the high price increases of domestic raw materials impacting negatively on the automobile supply chain.

Finally, it must be noted that both the component manufacturers and stakeholders perceived a relatively low impact of the informal sector not being integrated within the formal supply chain.

8.3.5 Rating of South African manufacturers of automotive leather by the OEMs

It was found that amongst the different decision-criteria that the OEMs use to determine which automotive leather manufacturer should get the business of the OEM, the following five factors, in order of ranking, are seen to be the most important:

- Quality
- Price
- JIT supply
- Labour stability
- Supplier relationships

Product quality is seen as the most important, followed by keen pricing, JIT supply, labour stability and supply chain considerations. It was found that South African manufacturers of automotive leather are on par, or above, the world standards in terms of the quality of their manufacturing, in terms of their JIT supply requirements as demanded by OEMs, and in terms of their supplier relationships. However, in terms of price and labour stability, they are in a weaker position than competitors from other parts of the world, especially Eastern Europe.

8.3.6 Value of the MIDP

The value of the MIDP towards the respondent's business and the value addition up to the final stages of the supply chain, since the implementation of the MIDP in 1995, were measured.

It was found that the OEMs received more value from the MIDP than the stakeholders and component manufacturers, although all three groups benefited from this policy. It must be noted that the incentives under the MIDP played a role in establishing an automotive leather supply chain in the country by competing for international and domestic business opportunities. Support for the OEMs is vital since they provide the fundamental base-load of demand for component manufacturers located in South Africa, and are critical to the component sector's overall export effort.

It was further found that the OEMs, the component manufacturers and stakeholders are in agreement that the MIDP was successful in promoting value addition up to the final stages of the supply chain during the period that it was implemented.

8.3.7 Value of the APDP

The value of the APDP towards the respondent's business and the value addition up to the final stages of the supply chain, since the implementation of the APDP in 2013, were measured.

It was found that the OEMs receive far more value from the APDP than the stakeholders and component manufacturers. It must be noted that the incentives under the APDP, despite higher vulnerable sector support, is perceived not to be enough to support the automotive leather industry and, as a result, two of the four automotive leather component manufacturers closed down in the country over recent years

It was further found that only the OEMs are in agreement that the APDP was successful in promoting value addition up to the final stages of the supply chain. The component manufacturers and stakeholders disagreed on this issue.

8.3.8 Rating of the perceived impact of the two key objectives of the APDP on the domestic leather industry

Two key objectives were measured regarding the use of the APDP and its impact on the domestic leather industry, namely:

- The objective to increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020, and to
- Broaden and deepen the components of the supply chain.

It was found that the OEMs perceive the two key objectives of the APDP to have a high impact on the domestic leather industry. The component manufacturers and stakeholders have a different viewpoint and do not see this as a benefit to their respective industries.

8.4 Main findings linked with the recommendations of the study

Table 8.1 reveal a summarised version of the main findings of the study linked with the recommendations of the study.

Table 8.1: Main findings linked with the recommendations of the study.

Main Findings	Recommendations
The demographic profile of the majority of stakeholders, component manufacturers and the OEMs are that Gauteng, Kwa-Zulu Natal and the Eastern Cape represents the three primary locations from where the manufacturers are operating. The main reason for this is that the suppliers are in close proximity of their customers. All three groups have been operating in the South African automotive industry in excess of ten years. See section 7.2 in this regard.	The physical location of the respondents are a given and no recommendations are made on this issue.
Five component manufacturers (83.33%) are foreign owned companies and only one component manufacturer (16.67%) is South African. Three stakeholders (75%) are South African owned companies and only one (25%) is foreign owned. All seven OEMs are foreign owned companies. *Foreign companies make up a meaningful contribution to the South African economy by creating business and employment opportunities in this sector.* See question 5 under section 7.3 in this regard.	It can be seen that most of the role players in the industry are foreign-based. The South African government is the main player in this sector setting the policies, such as the APDP, and plays a critical role in ensuring that South Africa attracts more FDI to boost the domestic economy. 1. As such, it is recommended that government must revisit its policy regarding the incentives supplied to get all the role-players (that is the total supply chain) in the industry to benefit from the incentive policy that is currently in place.

Five component manufacturers (83.33%) reported that their employment levels have declined and only one component manufacturer (16.67%) reported an increase in employment levels for the period 1995 – 2012, the duration of the MIDP. The decline in employment levels started towards the end of the MIDP, from the years 2008/2009 and could be attributed to various reasons, such as: the impact of the global financial crisis in 2008, the labour strikes that occurred in 2010, and the resultant implementation of the APDP in 2013. See question 7 under section 7.3 in this regard.	1. Because of the devastating effects on the domestic role-players that have already occurred and the South African economy at large, it is recommended that government, along with industry role-players, pro-actively strive to resolve industry related concerns that would avoid labour disputes and assist domestic manufacturers in becoming more competitive under the new policy regime, namely the APDP.
Amongst the different challenges that the domestic component manufacturers and the stakeholders are faced with, the most severe ones are: • The component manufacturers are significantly affected by the logistical costs to supply the main automotive markets that are globally positioned. • The component manufacturers are negatively affected because overseas competitors can supply main automotive markets more competitively than their South African counterparts.	The following recommendations will comprehensively answer the five most severe challenges as listed in the immediate left hand side column of the table: 1. It is recommended that government must focus especially on alleviating the problems of the component manufacturers who have been impacted to a severe extent under the APDP regime. 2. It is further recommended that government provides an incentive outside of the APDP to support the vulnerable industries who are exporting

- All six tanneries' supply chain has been negatively impacted because of a shortage of good quality raw material.
- All six tanneries have been negatively affected because there is no regulation prohibiting the export of raw hides and skins.
- All six tanneries have been subjected to the high price increases of domestic raw materials supplied, impacting negatively on the automobile supply chain.

There is a statistically significant difference between the stakeholders and the component manufacturers for two criteria, "challenged because of the logistical costs to main automotive markets" and "challenged because international competitors can supply main automotive markets at a cheaper price". This means that the component manufacturers have been impacted to a greater extent by these challenges than the stakeholders. See section 3.6 and question 11 under section 7.3 in this regard.

final products for automotive purposes to the main automotive markets in the world. A thorough analysis of a logistics incentive should be considered to determine the level of incentive required to sustain the automotive leather supply chain and enable this vital industry to get back on track. In this way, the government will be assisting the vulnerable industries to become more competitive, which will allow them to adapt their business model in such a way that they can compete in the intensely competitive global automotive environment. This will also not let them be complacent in their efforts in becoming more globally competitive, whilst ensuring the long-term sustainability of this industry.

3. It is further recommended that there should be a strict quota implemented on the export of raw hides and skins. The implementation of this recommendation will answer a number of concerns and problems that the industry currently has to contend with, and will bring about a number of other benefits and advantages which will be highlighted next.

A strict quota of not more than 30% - 40% of South Africa's total production of hides

	and skins should be allowed to be exported per year. In order to maintain trade relations with other countries and not to infringe on trade agreements, a strict quota system should be in place to ensure that this can be achieved. The duties on this type of raw materials should be in excess of 50% if exported in its raw or wet blue state, which is on par with other developing countries as highlighted in Chapter 3. This will ensure that it prevents any intention of exporting a significant number of South Africa's production of hides and skins without being adequately penalised. This will allow for more local supply of hides and skins, which will reduce domestic prices, making domestic manufacturers much more competitive in global terms. Farmers and other exporters of this raw material will be limited, resulting in less pressure from international buyers. By restricting the level of exports of this raw material, it will force further beneficiation of this raw material in South Africa, which will result in more employment opportunities, and more critical, this is consistent with the aims and objectives of the APDP.
The component manufacturers and stakeholders perceived a relatively low impact of the informal sector not being integrated within the formal supply chain.	The whole idea is that the component manufacturers and stakeholders cannot simply complain about the shortage of hides and skins yet do nothing to assist in

Although the stakeholders and component manufacturers perceived this to be a relatively low impact to their specific business unit, the possible integration of the informal sector should be a matter of high priority for government. See question 13 under section 7.3 in this regard.	alleviating the problem. The following recommendations should be considered by the South African government: 1. It is recommended that strategies and policies are set in place to integrate the informal sector within the formal leather supply chain because this will allow production in excess of 25%, or 750 000, hides and skins being utilised for automotive purposes that are going to waste, once again defying the objectives of the APDP. By restricting the level of exports of this raw material, it will also provide additional opportunities for the informal sector to be integrated in to the formal supply chain. The skins and hides available in the informal sector could also create business opportunities for communal entrepreneurs to act as emerging hide merchants, by training informal slaughter operators and emerging farmers to prepare hides, and to collect and sell them to tanneries. The aim of government should be to integrate the informal sector so that production in excess of 25%, or 750 000, hides and skins can be used to add and promote long-term sustainable value to South Africans by empowering them through its own policies and training.

	2. It is further recommended that government invests in its own people by instituting programmes through which proper training can be conducted, and a skills resource data base that is readily available can be established. Since the German markets are the main markets for automotive leather, German automotive leather training skills and methods can be adopted, thereby discovering new and better ways of raising, slaughtering, and processing animals to produce better quality hide off-take by reducing the negative impact of veins, natural markings (scars and scratches), and insect bites and bacteria on hides. This will make South African hides and skins sought after because of the superior quality. 3. It is further recommended that government institutes various different campaigns and programmes to effectively bring about awareness in the informal sector regarding the need to supply raw hides and skins to the different tanneries. 4. Furthermore, government can link tanneries to the informal sector by incentivising the tanneries to actively initiate supply agreements where the

	informal sector, along with tanneries, works in synergy to strengthen the domestic supply chain. 5. New distribution channels could be initiated and linked to the different tanneries so that the informal sector is working in cooperation with the formal supply chain until it is officially blended into the formal supply chain.
Amongst the different decision-criteria that the OEMs use to determine which automotive leather manufacturer should get the business of the OEMs, the following five factors, in order of ranking, are seen to be the most important: • Quality • Price • JIT supply • Labour stability • Supplier relationships Product quality is seen as the most important, followed by keen pricing, JIT supply, labour stability and supply chain considerations. South African manufacturers of automotive leather are on par, or above, the world standards in terms of the quality of their manufacturing, in terms of their JIT	1. It is recommended that a logistics incentive should be considered by government to support the domestic automotive industries, such as automotive leather, and this will ensure and allow for the South African leather industry to regain the stature it once had. 2. In terms of labour stability, it is recommended that the government must step up and play a more active role by introducing an industry/government liaison with respective trade unions whereby effective negotiations can take place before prolonged strikes disrupt supply lines and force OEMs to move contracts to other countries where they feel safer to source from. This has been a thorn in South Africa's image because South African manufacturers are

supply requirements as demanded by OEMs, and in terms of their supplier relationships. However, in terms of price and labour stability, they are in a weaker position than competitors from other parts of the world, especially Eastern Europe. See sections 3.6 and 3.7 in this regard as well as questions 20, 21 and 22 under section 7.3 in this regard.	considered to be a higher risk than that of competitors.
The OEMs received more value from the MIDP than the stakeholders and component manufacturers although all three groups benefited. There is not a statistically significant difference between the three groups' (stakeholders, component manufacturers, and OEMs) viewpoints with regards to the value of the MIDP to promote their companies, in particular, since its implementation in 1995. This, therefore, implies that all three groups concur that the MIDP has played a meaningful role to promote their companies, in particular, since its implementation in 1995. However, the mean ranks indicate that the OEMs received more value from the MIDP in promoting their companies than the stakeholders and component manufacturers.	1. It is recommended that government should consider providing the same level, or type, of incentives under the APDP for the vulnerable sectors, such as automotive leather, that was received under the MIDP. This will then assist in sustaining various highly developed domestic automotive supply chains that feed into the OEMs' procurement base. The end result is that these highly developed automotive supply chains will be able to sustain their contribution in the South African economy.

It was found that the OEMs, the component manufacturers and stakeholders are in agreement that the MIDP was successful in promoting value addition up to the final stages of the supply chain. The results, as revealed in chapter 7, indicate that there is not a statistically significant difference between the three groups (stakeholders, component manufacturers and OEMs) with regards to their viewpoints on the value of the MIDP to promote value addition up to the final stages of the supply chain since its implementation in 1995. This, therefore, implies that all three groups concur that the MIDP has played a meaningful role to promote value addition up to the final stages of the supply chain since it was implemented in 1995. However, the mean ranks indicate that the OEMs regarded the MIDP to promote more value addition up to the final stages of the supply chain than the stakeholders and component manufacturers. See section 3.5 and question 26 under section 7.4 in this regard.	1. It is recommended that government strives to achieve complete value addition/beneficiation under the APDP as has been achieved under the MIDP. The structure and lessons learned under the MIDP should provide the foundation for the value addition/beneficiation strategy being achieved. 2. It is further recommended that policy coherence between the relevant government departments is important for the value addition/beneficiation strategy to succeed optimally. It is important that the automotive leather industry in conjunction with the relevant government departments work closely together on important matters, such as, the lack of regulation on the export of hides and skins from South Africa.
The OEMs receive far more value from the APDP than the stakeholders and component manufacturers.	1. It is recommended that, in order for the APDP to be effective with regards to automotive leather manufacturing in South Africa, there needs to be an

There is a high statistically significant difference at the 5% level of significance between the three groups (stakeholders, component manufacturers and OEMs) regarding their viewpoints on the value of the APDP to promote their companies, in particular, since its implementation in 2013. This, therefore, implies that all three groups do not concur that the APDP to date has played a meaningful role in promoting their companies, in particular, since its implementation in 2013. However, the mean ranks indicate that the OEMs tended to receive more value from the APDP (mean rank of 15.50) in promoting their companies than the stakeholders (mean rank of 5.00) and component manufacturers (mean rank of 8.58). See questions 28, 29 and 30 under section 7.4 in this regard.	additional logistics incentive or higher vulnerable sector incentives that will combat the higher costs associated with airfreight due to the logistical disadvantage of South African manufacturers. This will allow companies to adapt their business models to become structurally and internationally more competitive in an intensely competitive global automotive environment.
The OEMs are in agreement that the APDP was successful in promoting value addition up to the final stages of the supply chain since it was implemented in 2013. The component manufacturers and stakeholders disagree on this. There is a high statistically significant difference at the 5% level of significance between the three groups (stakeholders, component manufacturers and OEMs) with regards to their viewpoints on the	It is recommended that emphasis is placed on the Automotive Supply Chain Competitiveness Initiative (ASCCI) with special focus on vulnerable supply chains, such as automotive leather. The first thing to note is that there are some initiatives outside of the APDP required to put this industry segment back on a growth track. 1. The first action programme is to increase localisation to improve value addition within South Africa. The

value of the APDP to promote value addition up to the final stages of the supply chain since its implementation in 2013. This, therefore, implies that all three groups do not concur that the APDP to date has played a meaningful role in promoting value addition up to the final stages of the supply chain. However, the mean ranks indicate that the OEMs regard the APDP to promote more value addition up to the final stages of the supply chain than the stakeholders and component manufacturers. See section 2.9 and question 30 under section 7.4 in this regard.	automotive leather industry, with its world-class manufacturing facilities, is ready to develop initiatives in conjunction with other industry stakeholders and government to broaden and deepen the industry's manufacturing base to increase localisation and reach economies of scale, which is imperative in order to sustain and grow this industry. 2. The second action programme is competitiveness improvement. The automotive leather industry is ready to develop initiatives to improve productivity and competitiveness, and thereby strengthening and integrating the domestic supply chain to efficiently and effectively feed into the OEMs' procurement base. This is imperative to sustain and grow the industry. 3. The third action programme is job creation and skills development. The automotive leather industry needs to improve on-line productivity and skills enhancements in order to strive to reach sustainable levels of employment.
The OEMs perceive the two key objectives of the APDP to have a higher impact on the domestic leather industry.	1. It is recommended that government, in conjunction with the relevant role-players of the domestic leather industry,

The component manufacturers and stakeholders have a different viewpoint and do not see this impact on their respective industries. See section 2.9.5 and question 31 under section 7.4 in this regard.	work closely together in realising the aims and value of these two key objectives of the APDP.

8.5 Synchronisation of research objectives with the findings of the study

The primary and secondary objectives of this research study were achieved and are revealed in table 8.2, where it is synchronised with the main findings.

Table 8.2: Objectives synchronised with the main findings.

Objectives	Main findings
Primary objective: To determine the impact of South African automotive policy changes on the domestic leather industry.	There are serious changes occurring in the South African automotive industry since 2008. Some of the changes are: • Loss of German contract business who are the largest users of South African automotive leather products. A reduction from R2.68 billion in 2010 to R754 million in 2014 (see table 1.2). • Loss of hides processed into cut-sets from 1.72 million in 2010 to 1.2 million in 2012 (see table 3.19). A decrease of 30% in the span of two years. • Employment within the ATCG decreased from 3 165 employees in

	2010 to 2 305 employees in 2012 (see table 3.21). The ATCG constitutes the majority of employment within the tanning industry. • Employment within the sewing industry decreased from 9 242 employees in 2005 to 4 798 in 2014 (see table 3.22). A decline of 48%. • Stitched leather seat parts consistently remained one of South Africa's top components being exported under the MIDP. It dropped down from second position to number four in 2012 (see table 4.19). • The export of stitched leather seat parts from South Africa dropped from R2 897 million in 2010 to R1 285 million in 2014 (see section 3.6). A reduction of more than 50% in a short span of four years. • Two major automotive tanneries have shut operations in 2014. • Two major sewing plants have relocated to Lesotho in 2015. • See HO1 to HO16.
Secondary objective: To research the supply chain used in the	Some of the main findings of the study were: • South Africa has one of the few

South African automotive industry with special reference to the South African leather manufacturers.	geared-up bovine leather supply chains in the world that comprises of all five stages of the value chain in a cohesive manner and is the only one in Africa (see section 3.4.1). • The supply chain of the domestic automotive leather manufacturers is consistent in adhering to the APDP policy rules because all the value addition is occurring in South Africa (see table 3.18). • The entire leather supply chain is currently at risk if no government intervention is done to assist this supply chain. Without this additional support, South Africa will become like other countries in the world, which export their raw hides and skins without any value addition being received within the South African economy (see section 3.8). This defies government's aims and objectives of pursuing beneficiation and value addition policies. • See HO2 and HO4.
Secondary objective: To investigate the impact of the discontinuation of the MIDP policy on the role-players of the South African automotive leather industry.	Some of the main findings of the study were: • The stakeholders and the component manufacturers indicated that the MIDP was successful in promoting their

	companies (see figure 7.15). • The stakeholders indicated that the APDP has been less successful in promoting their companies, whilst the component manufacturers indicated that the APDP has not been successful at all in promoting their companies (see figure 7.20). • The stakeholders and the component manufacturers indicated that the MIDP was more successful in promoting value addition up to the final stages of the supply chain (see figure 7.16). • The stakeholders indicated that the APDP has been less successful in promoting value addition up to the final stages of the supply chain, whilst the component manufacturers indicated that the APDP has not been successful at all in promoting value addition up to the final stages of the supply chain (see figure 7.21). • See HO1, HO2, HO7, HO8, HO9, HO10 and HO11.
Secondary objective: To assess the current competitive situation in the South African automotive leather market.	The findings of the study indicates that: • The domestic automotive leather manufacturers are still competitive, but the logistical costs to the main automotive markets are a major

	drawback, which renders them uncompetitive to competitors from Eastern Europe (see section 3.6). The automotive tanneries and sewing plants have highlighted this as a major challenge. • Incentives under the APDP are not sufficient enough to offset logistical costs to the main automotive markets in the world (see section 3.6). • The incentive received under the MIDP was in the order of over 9%, whereas the APDP PI benefit provides just above 4% (see section 3.8). This indicates the crux of the problem for the stakeholders and the component manufacturers who, currently, receive less of an incentive than in the past and this is negatively impacting their long-term viability. • See HO3, HO4, HO5, HO6.
Secondary objective: To research the possible impact of the APDP policy on the South African automotive leather manufacturing industry.	The findings of the study indicates that: • Not all the stakeholders are registered under the APDP (see figure 7.17). • Only two out of the six component manufacturers are registered under the APDP (see figure 7.17). • All six stakeholders and all six

	component manufacturers do not benefit directly from the APDP via PRCCs (see figure 7.18). • Only one out of the six stakeholders, and one out of the six component manufacturers, benefit indirectly from the APDP via increased orders (see figure 7.19). • All six stakeholders and component manufacturers do not benefit indirectly from the APDP via increased volumes or increased interest (see figure 7.19). • The entire leather supply chain is currently at risk if no government intervention is done to assist the industry (see section 3.8). • See HO12, HO13, HO14 HO15 and HO16.
Secondary objective: To contribute to the field of study and to identify further areas for research.	• This study achieved its aims and objectives thus contributing to the field of study. Further research suggestions are provided under section 8.7 which follows.

8.6 Limitations of the study

There were several limitations to this study, which need to be taken into consideration when reading this dissertation. These are discussed below:

- The results from this study are limited to the South African leather industry with particular focus on automotive leather and cannot be extrapolated to other industries in the South African automotive supply chain and the industry in general.
- The survey was conducted using printed questionnaires, instead of a possible electronic survey. This was a self-administered questionnaire that was handed out to participants and the researcher had to wait until the questionnaire was completed before moving on to the next participant. Thus, data collection was a time consuming process that could have influenced the respondents' quality of answers whilst completing the questionnaire.
- When the researcher started to contact the survey participants, it was established that two of the four automotive sewing plants did not want to participate in the study. The initial population was 21 role-players, only 19 responded. The possibility of bias and the smaller number of respondents is, therefore, a limitation of the study.
- The study focuses on the impact of the transition from the MIDP to the APDP. The limitation is that the APDP has only commenced in January 2013 and the full effect of the APDP cannot be fully assessed at this stage.

8.7 Potential areas for further research

Based on the quantitative and qualitative research done for this study, the following potential areas for further research have been identified:

The MIDP's and APDP's contribution to the automotive industry in South Africa has been discussed in chapter 4. South Africa is wealthy in terms of its raw material resources and should be able to provide a comparative and competitive advantage to many of its domestic industries and businesses. Raw materials are important inputs into various automotive supply chains and their usage increases along with the improvements and growth in the domestic automotive industry. In order to ensure the long-term optimal use of these raw materials, as well as strictly adhering to the

promotion and compliance of value addition and beneficiation policies within South Africa, the following potential areas for research could be:

- An analysis on the relevance and value of an export tax/duty on South Africa's raw skins and hides, and its impact on the various stakeholders of the domestic leather supply chain.
- An analysis on the relevance and value of an export tax/duty on South Africa's raw materials with regards to the automotive industry on which there is no export tax/duty.

The APDP has been implemented since the year 2013. Ever since the introduction, and as the APDP progressed, there has been a high degree of negative stigmatisation from various automotive component manufacturers in many different supply chains. Owing to the synergies of the automotive sector with a large number of related upstream sectors supplying raw materials, such as: plastics, metals, rubber, chemicals and leather, amongst others, the following potential areas for further research could be:

- An analysis of the relevance and value of an amended APDP policy regime for investment and manufacturing decisions in the automotive component sectors.
- An analysis of the impact of the transition from the MIDP to the APDP on related economic sectors in the automotive industry in South Africa.
- An analysis of how regional integration in Africa could benefit the South African leather industry under the APDP.

It is well documented that South Africa has a poor geographic location in terms of where the main automotive markets in the world are situated. Because of this logistical disadvantage, domestic manufacturers of many different supply chains are not competitive enough when contesting against competitors from Eastern Europe and other parts of the world. Owing to the importance of the domestic automotive industry and its relevant role-players within the South African economy, the following potential area for research could be:

- An analysis of the benefit of a logistics incentive to the relevant role-players in the South African automotive industry.

8.8 Conclusions to the study

This study aimed to determine the impact of South African automotive policy changes on the domestic leather industry and to determine whether this change has been positive or negative. To achieve this goal, the primary objective of this study and several secondary objectives were set. The literature chapters of this study covered aspects in the domestic automotive industry, the domestic leather industry, and the MIDP's and APDP's policy regimes. These chapters provided the foundation for the information and theory that was used to develop the questionnaire so that the empirical survey could be conducted to gather the primary data.

It can be concluded that the study had achieved its aims and objectives in analysing the impact of South African automotive policy changes on the domestic leather industry. The findings of the study revealed that the domestic automotive leather manufacturers are indeed worse off under the APDP than under the MIDP. From the findings, it is clear that the domestic automotive leather manufacturers need some form of additional government assistance outside of the APDP in becoming even more competitive when contesting against competitors from Eastern Europe.

The recommendations provided in this study will be beneficial to the domestic automotive leather manufacturers and to government in putting this vital industry back on track. A well-developed automotive leather supply chain was developed under the MIDP and this study confirmed the important role that this industry plays and contributes within the domestic automotive industry. On a broader scale, the importance of this industry cannot be emphasised enough, thus making it imperative for the domestic automotive leather manufacturers to become more competitive in ensuring the long-term sustainability of this industry.

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Appendix A: Empirical survey

Survey Questionnaire

The impact of South African automotive policy changes on the domestic leather industry

Respondent no:	

Dear Respondent

Thank you for your willingness to complete this survey on the impact of South African automotive policy changes on the domestic leather industry. The purpose of this survey is to determine your views and perceptions on the previous as well as on the new automotive policy regime namely, the APDP. This survey should not take longer than **10 minutes** to complete. This is an anonymous and strictly confidential survey. All participants will remain strictly anonymous and the answers provided will be used for research purposes only.

Please answer all questions by placing a cross (X), a tick or a circle (O) in the block where necessary and elaborate where required. There are no right or wrong answers.

Section A: General information

1. Name of company: _____

2. When was the company established? _____

3. In which province is the company situated? (Indicate other province(s) if situated in more than one)

_____

4. Which option best describes the status of the company you work for?

Status	**Circle (0) choice**
Chemical company	01
Tannery	02
Sewing plant	03
OEM	04
Independent unit	05

Section B: Company specific information

All chemical companies', tanneries and sewing plants please answer questions 5 – 13 in this section.

All OEMs, please answer questions 14 – 22 in this section.

All independent units, please go to questions 23 - 33 in section C.

5. Please indicate if your company is a majority South African owned or majority foreign owned company.

South African owned		Foreign owned	

6. How many employees are there in your company in South Africa?

_____

7. For the period 1995 – 2012, have the employment levels in your company in South Africa:

Increased from 1995 – 2012?	1
Increased for a certain period but then started decreasing?	2
Decreased from 1995 – 2012?	3
Decreased for a certain period but then started increasing?	4

Please explain the reason for your choice.

_____

_____

_____

8. Please indicate if there has been a change in the major products manufactured/assembled by your company from 1995 to 2012?

Yes		No	

If yes, please rate the extent of changes from 1995 to 2012:

Changed slightly		Changed moderately		Changed significantly	

9. Please indicate all the customers for which your goods are being supplied:

Tanneries	1
Sewing plants	2
Domestic OEMs	3
International OEMs	4

Other (Please specify)	5

Please specify: _____

_____

10. Has there been a change in your target customers/market from 1995 to 2012?

Yes		No	

If yes, please rate the extent of changes from 1995 to 2012:

Changed slightly		Changed moderately		Changed significantly	

11. Please indicate the impact of the challenges that your company has been subjected to from 1995 to 2012:

Criteria	**No impact**	**Very low impact**	**Low impact**	**Moderate impact**	**High impact**	**Very high impact**
Challenged by a shortage of good quality raw materials	1	2	3	4	5	6
Challenged because there is no regulation on the export of raw hides and skins	1	2	3	4	5	6
Challenged because of the prices of domestic raw materials	1	2	3	4	5	6
Challenged because the informal sector is not integrated within the formal supply chain	1	2	3	4	5	6
Challenged because of the rising costs of conducting business in South Africa	1	2	3	4	5	6
Challenged because of the logistical costs to main automotive	1	2	3	4	5	6

markets						
Challenged because of labour problems	1	2	3	4	5	6
Challenged because international competitors can supply main automotive markets at a cheaper price	1	2	3	4	5	6
Other (Please specify)	1	2	3	4	5	6

Please specify: _____

_____

_____

12. Please circle the most important measure that could be taken to prevent the export of raw hides and skins from South Africa.

Export bans	1
Export quotas	2
Export taxes	3
Government monitoring, regulation, guidelines and possible penalties on the exporting of raw hides and skins.	4

Please explain the reason for your choice.

_____

_____

_____

13. Please indicate your level of agreement with regard to the following possible advantages of controlling the export of raw hides and skins from South Africa.

Criteria	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
It will provide access to good quality raw materials	1	2	3	4	5
It will provide access to lower prices of raw materials	1	2	3	4	5
It will assist in lowering the costs of conducting business in South Africa	1	2	3	4	5
There is potential to integrate the informal sector within the formal supply chain	1	2	3	4	5
It will assist in beneficiating raw materials up to the final stages of the supply chain	1	2	3	4	5
It will assist in overcoming labour problems	1	2	3	4	5
It will assist in employment creation	1	2	3	4	5
Other (Please specify)	1	2	3	4	5

Please specify: _____

_____

_____

All OEMs, please answer questions 14 – 22.

14. Does your company utilise automotive leather in the vehicles that you manufacture?

Yes		No	

If **no** go to **question 15.**

If **yes** go to **question 16.**

15. Please state the reason(s) why your company does not utilise automotive leather in the vehicles that you manufacture?

_____

_____

_____

Go to section C.

16. How much, in rand value of automotive leather does your company purchase per annum? Please tick the relevant box.

R1 to R200 million per annum		R201 to R500 million per annum		R501 million or above per annum	

17. From which one of the following two options does your company purchase a higher quantity of automotive leather?

South African manufacturers		International manufacturers	

Please explain the reason for your choice.

_____

_____

_____

18. Did the purchase options of automotive leather from you as an OEM/manufacturer change from 1995 to 2012?

Yes		No	

If yes, please rate the extent of changes from 1995 to 2012:

Changed slightly		Changed moderately		Changed significantly	

19. Who determines the purchasing options of automotive leather for your company?

South African OEM		Parent company	

20. Please indicate the level of importance of the following criteria for selection of which automotive leather manufacturer should get the business.

Criteria	**Not important at all**	**Of little importance**	**Of moderate importance**	**Of high importance**	**Of extreme importance**
Price competitiveness	1	2	3	4	5
Quality of manufacturers	1	2	3	4	5
Trade relations with a country	1	2	3	4	5
Labour stability of a country	1	2	3	4	5
Political conditions of a country	1	2	3	4	5
Economic conditions of a country	1	2	3	4	5
Currency conditions of a country	1	2	3	4	5
Supplier relationships of a country	1	2	3	4	5
Enhanced JIT supply	1	2	3	4	5

requirements					
Other (Please specify)	1	2	3	4	5

Please specify: _____

_____

21. Please rate South African manufacturers using the following criteria:

Criteria	**Very weak**	**Weak**	**Market related**	**Strong**	**Very strong**
Price competitiveness	1	2	3	4	5
Quality of manufacturers	1	2	3	4	5
Standards of manufacturing equipment	1	2	3	4	5
Standards of technological requirements	1	2	3	4	5
Ability to keep up to manufacturing targets	1	2	3	4	5
Labour stability	1	2	3	4	5
Higher risk profile than that of competitors	1	2	3	4	5
Supplier relationships	1	2	3	4	5
Enhanced JIT supply requirements	1	2	3	4	5

Other (Please specify)	1	2	3	4	5

Please specify: _____

_____

22. If your company's trend is to purchase less from South African manufacturers than from international manufacturers, please explain what is required in order to ensure South African manufacturers can be your choice of purchasing options or if the trend or potential trend is upward, please explain the reason(s) why?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Section C: Government policy

All respondents must answer the following questions.

23. Please indicate if your company was registered under the MIDP.

Yes		No	

24. Please indicate if your company benefitted from the MIDP: (tick all that apply)

Directly via IRCCs

Yes		No	

Indirectly via

Increased orders by any user in the supply chain (tanneries, sewing plants, OEMs, other)	Yes		No	
Increased volumes (domestic and export)	Yes		No	
Increased interest	Yes		No	
Other areas (Please specify)	Yes		No	

Please specify: _____

_____

25. Please indicate the value of the MIDP to promote your company in particular since it was implemented in 1995:

Not successful at all	1

Little bit successful	2
Successful	3
Very successful	4

26. Please indicate the value of the MIDP to promote value addition up to the final stages of the supply chain since it was implemented in 1995:

Not successful at all	1
Little bit successful	2
Successful	3
Very successful	4

27. Please indicate if your company is registered under the APDP.

Yes		No	

28. Please indicate if your company benefits from the APDP: (tick all that apply)

Directly via PRCCs

Yes		No	

Indirectly via

Increased orders by any user in the supply chain (tanneries, sewing plants, OEMs, other)	Yes		No	

Increased volumes (domestic and export)	Yes		No	
Increased interest	Yes		No	
Other areas (Please specify)	Yes		No	

Please specify: _____

_____

29. Please indicate the perceived contribution of the APDP to promote your company in particular since it was implemented in 2013:

No contribution	1
Small contribution	2
Moderate contribution	3
High contribution	4

30. Please indicate the perceived contribution of the APDP in promoting value addition up to the final stages of the supply chain since it was implemented in 2013:

No contribution	1
Small contribution	2
Moderate contribution	3
High contribution	4

31. The APDP, in elevating the industry to the next level, has two critical and key objectives. Please rate the perceived impact of these two objectives, in terms of the criteria stated, on the domestic leather industry.

31.1 To increase manufacturing volumes to 1.2 million vehicles per annum by the year 2020.

Criteria	**No impact**	**Very low impact**	**Low impact**	**Moderate impact**	**High impact**	**Very high impact**
Generate business with an increase in sales (domestic and export)	1	2	3	4	5	6
Attract investments (domestic and foreign)	1	2	3	4	5	6
To promote value addition up to the final stages of the supply chain	1	2	3	4	5	6
Adhering to OEMs strict requirements and regulations	1	2	3	4	5	6
Increasing the competitiveness of domestic manufacturers	1	2	3	4	5	6
To achieve economies of scale	1	2	3	4	5	6
To provide alternate opportunities within the	1	2	3	4	5	6

domestic leather industry						
Other (Please specify)	1	2	3	4	5	6

Please specify: _____

_____

_____

31.2 To substantially diversify and deepen the components supply chain.

Criteria	**No impact**	**Very low impact**	**Low impact**	**Moderate impact**	**High impact**	**Very high impact**
Generate business with an increase in sales (domestic and export)	1	2	3	4	5	6
Attract investments (domestic and foreign)	1	2	3	4	5	6
To promote value addition up to the final stages of the supply chain	1	2	3	4	5	6
Adhering to OEMs strict requirements and regulations	1	2	3	4	5	6
Increasing the	1	2	3	4	5	6

competitiveness of domestic manufacturers						
To achieve economies of scale	1	2	3	4	5	6
To provide alternate opportunities within the domestic leather industry	1	2	3	4	5	6
Other (Please specify)	1	2	3	4	5	6

Please specify: _____

_____

32. Please explain the level of impact to your company due to the change of automotive policy from the pre MIDP period to the MIDP period.

_____

_____

_____

_____

_____

33. Please explain the level of impact to your company due to the change of automotive policy from the MIDP period to the APDP period to date and perceived in the future.

_____

_____

_____

_____

_____

_____

34. Contact details:

Name: _____

Contact number: _____

Email: _____

Thank you for your time and contribution in participating in this research study!!

Please email the completed survey back to faizal@soundtech.co.za

Contact number: 083 246 8901

Appendix B: Covering letter

Title of study

Impact of South African automotive policy changes on the domestic leather industry

Dear Participant

The South African leather industry has been significantly transformed over the past two decades and has come a long way since the implementation of the MIDP in 1995. The MIDP had terminated at the end of 2012 and government has implemented its latest rendition of automotive policy namely, the APDP. The domestic leather industry is now regarded as being vulnerable under the APDP policy regime. As part of my research for a post graduate study at UNISA, your views and inputs on the impact of South African automotive policy changes on your business unit within the domestic leather industry is much anticipated and highly appreciated.

Thank you for your participation in this research study. In this rapidly changing business environment were mediocrity and traces of it are being suddenly eliminated, your inputs and views will play a critical role in improving and providing a new approach to the current automotive policy regime with specific reference to the domestic leather industry and more specific to your business unit in general. All the information obtained will be treated with the strictest confidentiality and privacy and will only be published in aggregate format. Feedback on this research study will be made available on request to all participants once it is completed.

Yours faithfully

Faizal Khan

Appendix C: Inferential statistics

Table C1.1 Two key objectives

Ranks

	Manufacturing type with OEM	N	Mean Rank
q31.11	1.00	6	9.00
	2.00	6	6.00
	3.00	7	14.29
	Total	19	
q31.12	1.00	6	9.42
	2.00	6	5.67
	3.00	7	14.21
	Total	19	
q31.13	1.00	6	7.83
	2.00	6	6.42
	3.00	7	14.93
	Total	19	
q31.14	1.00	6	8.08
	2.00	6	7.33
	3.00	7	13.93
	Total	19	
q31.15	1.00	6	7.67
	2.00	6	7.00
	3.00	7	14.57
	Total	19	

q31.16	1.00	6	8.17
	2.00	6	6.67
	3.00	7	14.43
	Total	19	
q31.17	1.00	6	7.92
	2.00	6	6.33
	3.00	7	14.93
	Total	19	
q31.21	1.00	6	8.83
	2.00	6	6.17
	3.00	7	14.29
	Total	19	
q31.22	1.00	6	9.00
	2.00	6	5.50
	3.00	7	14.71
	Total	19	
q31.23	1.00	6	8.92
	2.00	6	6.25
	3.00	7	14.14
	Total	19	
q31.24	1.00	6	9.83
	2.00	6	7.58
	3.00	7	12.21
	Total	19	

q31.25	1.00	6	8.33
	2.00	6	7.17
	3.00	7	13.86
	Total	19	
q31.26	1.00	6	8.25
	2.00	6	6.67
	3.00	7	14.36
	Total	19	
q31.27	1.00	6	8.75
	2.00	6	6.33
	3.00	7	14.21
	Total	19	

Table C1.2 Two key objectives

Test Statistics[a,b]

	q31.11	q31.12	q31.13	q31.14	q31.15	q31.16	q31.17	q31.21	q31.22	q31.23	q31.24	q31.25	q31.26	q31.27
Chi-Square	7.560	7.909	9.124	5.679	7.722	7.450	9.225	7.374	9.289	7.072	2.301	5.761	7.285	7.145
df	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Asymp. Sig.	.023	.019	.010	.058	.021	.024	.010	.025	.010	.029	.317	.056	.026	.028

a. Kruskal Wallis Test

Table C2.1 Two key objectives

Ranks

	Manufacturing type	N	Mean Rank	Sum of Ranks
q31.11	1.00	6	7.58	45.50
	2.00	6	5.42	32.50
	Total	12		
q31.12	1.00	6	7.75	46.50
	2.00	6	5.25	31.50
	Total	12		
q31.13	1.00	6	7.08	42.50
	2.00	6	5.92	35.50
	Total	12		
q31.14	1.00	6	6.75	40.50
	2.00	6	6.25	37.50
	Total	12		
q31.15	1.00	6	6.75	40.50
	2.00	6	6.25	37.50
	Total	12		
q31.16	1.00	6	7.25	43.50
	2.00	6	5.75	34.50
	Total	12		
q31.17	1.00	6	6.92	41.50
	2.00	6	6.08	36.50
	Total	12		
q31.21	1.00	6	7.50	45.00
	2.00	6	5.50	33.00

	Total	12		
q31.22	1.00	6	7.83	47.00
	2.00	6	5.17	31.00
	Total	12		
q31.23	1.00	6	7.42	44.50
	2.00	6	5.58	33.50
	Total	12		
q31.24	1.00	6	7.25	43.50
	2.00	6	5.75	34.50
	Total	12		
q31.25	1.00	6	6.92	41.50
	2.00	6	6.08	36.50
	Total	12		
q31.26	1.00	6	7.00	42.00
	2.00	6	6.00	36.00
	Total	12		
q31.27	1.00	6	7.25	43.50
	2.00	6	5.75	34.50
	Total	12		

Table C2.2 Two key objectives

Test Statistics[a]

	q31.11	q31.12	q31.13	q31.14	q31.15	q31.16	q31.17	q31.21	q31.22	q31.23	q31.24	q31.25	q31.26	q31.27

Mann-Whitney U	11.500	10.500	14.500	16.500	16.500	13.500	15.500	12.000	10.000	12.500	13.500	15.500	15.000	13.500
Wilcoxon W	32.500	31.500	35.500	37.500	37.500	34.500	36.500	33.000	31.000	33.500	34.500	36.500	36.000	34.500
Z	-1.092	-1.260	-.588	-.249	-.251	-.777	-.424	-1.000	-1.338	-.920	-.746	-.426	-.506	-.753
Asymp. Sig. (2-tailed)	.275	.208	.557	.804	.802	.437	.672	.317	.181	.357	.456	.670	.613	.452
Exact Sig. [2*(1-tailed Sig.)]	.310[b]	.240[b]	.589[b]	.818[b]	.818[b]	.485[b]	.699[b]	.394[b]	.240[b]	.394[b]	.485[b]	.699[b]	.699[b]	.485[b]

a. Grouping Variable: manufacturing type

Table C3.1 Value of MIDP and APDP

Ranks

	Manufacturing type with OEM	N	Mean Rank
q25	1.00	6	8.42
	2.00	6	7.25
	3.00	7	13.71
	Total	19	
q26	1.00	6	9.58
	2.00	6	9.58
	3.00	7	10.71
	Total	19	
q29	1.00	6	5.00
	2.00	6	8.58

	3.00	7	15.50
	Total	19	
q30	1.00	6	5.67
	2.00	6	7.83
	3.00	7	15.57
	Total	19	

Table C3.2 Value of MIDP and APDP

Test Statistics[a,b]

	q25	q26	q29	q30
Chi-Square	5.869	.200	12.902	12.385
df	2	2	2	2
Asymp. Sig.	.053	.905	.002	.002

a. Kruskal Wallis Test

b. Grouping Variable: manufacturing type with OEM

Table C4.1 Challenges of companies

Ranks

	Manufacturing type	N	Mean Rank	Sum of Ranks
q11.1	1.00	6	5.92	35.50
	2.00	4	4.88	19.50
	Total	10		
q11.2	1.00	6	5.58	33.50
	2.00	4	5.38	21.50

	Total	10		
q11.3	1.00	6	6.50	39.00
	2.00	4	4.00	16.00
	Total	10		
q11.4	1.00	6	6.17	37.00
	2.00	4	4.50	18.00
	Total	10		
q11.5	1.00	6	6.92	41.50
	2.00	4	3.38	13.50
	Total	10		
q11.6	1.00	6	7.50	45.00
	2.00	4	2.50	10.00
	Total	10		
q11.7	1.00	6	6.50	39.00
	2.00	4	4.00	16.00
	Total	10		
q11.8	1.00	6	7.33	44.00
	2.00	4	2.75	11.00
	Total	10		

Table C4.2 Challenges of companies

Test Statistics[a]

	q11.1	q11.2	q11.3	q11.4	q11.5	q11.6	q11.7	q11.8
Mann-Whitney U	9.500	11.500	6.000	8.000	3.500	.000	6.000	1.000

Wilcoxon W	19.500	21.500	16.000	18.000	13.500	10.000	16.000	11.000
Z	-.548	-.110	-1.369	-.871	-1.901	-2.631	-1.389	-2.412
Asymp. Sig. (2-tailed)	.584	.913	.171	.383	.057	.009	.165	.016
Exact Sig. [2*(1-tailed Sig.)]	.610[b]	.914[b]	.257[b]	.476[b]	.067[b]	.010[b]	.257[b]	.019[b]

a. Grouping Variable: manufacturing type

Table C5.1 Registered under the MIDP

Crosstab

			q23		Total
			1.0	2.0	
Manufacturing type with OEM	1.00	Count	5	1	6
		% within manufacturing type with OEM	83.3%	16.7%	100.0%
		% within q23	41.7%	14.3%	31.6%
	2.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q23	0.0%	85.7%	31.6%
	3.00	Count	7	0	7
		% within manufacturing type with OEM	100.0%	0.0%	100.0%
		% within q23	58.3%	0.0%	36.8%
Total		Count	12	7	19
		% within manufacturing type with OEM	63.2%	36.8%	100.0%

% within q23	100.0%	100.0%	100.0%

Table C5.2 Registered under the MIDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.419[a]	2	.000
Likelihood Ratio	19.601	2	.000
Linear-by-Linear Association	.589	1	.443
N of Valid Cases	19		

Table C5.3 Registered under the MIDP

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.901	.000
	Cramer's V	.901	.000
N of Valid Cases		19	

Table C6.1 Benefitted directly via the MIDP

Crosstab

			q24.1		
			1.0	2.0	Total
Manufacturing type	1.00	Count	0	6	6

with OEM		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q24.1	0.0%	50.0%	31.6%
	2.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q24.1	0.0%	50.0%	31.6%
	3.00	Count	7	0	7
		% within manufacturing type with OEM	100.0%	0.0%	100.0%
		% within q24.1	100.0%	0.0%	36.8%
Total		Count	7	12	19
		% within manufacturing type with OEM	36.8%	63.2%	100.0%
		% within q24.1	100.0%	100.0%	100.0%

Table C6.2 Benefitted directly via the MIDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.000[a]	2	.000
Likelihood Ratio	25.008	2	.000
Linear-by-Linear Association	13.829	1	.000
N of Valid Cases	19		

Table C6.3 Benefitted directly via the MIDP

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	1.000	.000
	Cramer's V	1.000	.000
N of Valid Cases		19	

Table C7.1 Benefitted via increased orders under the MIDP

Crosstab

			q24.21		Total
			1.0	2.0	
Manufacturing type with OEM	1.00	Count	6	0	6
		% within manufacturing type with OEM	100.0%	0.0%	100.0%
		% within q24.21	37.5%	0.0%	31.6%
	2.00	Count	6	0	6
		% within manufacturing type with OEM	100.0%	0.0%	100.0%
		% within q24.21	37.5%	0.0%	31.6%
	3.00	Count	4	3	7
		% within manufacturing type with OEM	57.1%	42.9%	100.0%
		% within q24.21	25.0%	100.0%	36.8%
Total		Count	16	3	19

	% within manufacturing type with OEM	84.2%	15.8%	100.0%
	% within q24.21	100.0%	100.0%	100.0%

Table C7.2 Benefitted via increased orders under the MIDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.107[a]	2	.047
Likelihood Ratio	7.013	2	.030
Linear-by-Linear Association	4.445	1	.035
N of Valid Cases	19		

Table C7.3 Benefitted via increased orders under the MIDP

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.567	.047
	Cramer's V	.567	.047
N of Valid Cases		19	

Table C8.1 Benefitted via increased volumes under the MIDP

Crosstab

	q24.22	
	1.0	Total

Manufacturing type with OEM	1.00	Count	6	6
		% within manufacturing type with OEM	100.0%	100.0%
		% within q24.22	31.6%	31.6%
	2.00	Count	6	6
		% within manufacturing type with OEM	100.0%	100.0%
		% within q24.22	31.6%	31.6%
	3.00	Count	7	7
		% within manufacturing type with OEM	100.0%	100.0%
		% within q24.22	36.8%	36.8%
Total		Count	19	19
		% within manufacturing type with OEM	100.0%	100.0%
		% within q24.22	100.0%	100.0%

Table C8.2 Benefitted via increased volumes under the MIDP

Chi-Square Tests

	Value
Pearson Chi-Square	.[a]
N of Valid Cases	19

Table B8.3 Benefitted via increased volumes under the MIDP

Symmetric Measures

		Value
Nominal by Nominal	Phi	.[a]
N of Valid Cases		19

Table C9.1 Benefitted via increased interest under the MIDP

Crosstab

			q24.23		
			1.0	2.0	Total
Manufacturing type with OEM	1.00	Count	6	0	6
		% within manufacturing type with OEM	100.0%	0.0%	100.0%
		% within q24.23	33.3%	0.0%	31.6%
	2.00	Count	6	0	6
		% within manufacturing type with OEM	100.0%	0.0%	100.0%
		% within q24.23	33.3%	0.0%	31.6%
	3.00	Count	6	1	7
		% within manufacturing type with OEM	85.7%	14.3%	100.0%
		% within q24.23	33.3%	100.0%	36.8%
Total		Count	18	1	19
		% within manufacturing type with OEM	94.7%	5.3%	100.0%
		% within q24.23	100.0%	100.0%	100.0%

Table C9.2 Benefitted via increased interest under the MIDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.810[a]	2	.405
Likelihood Ratio	2.094	2	.351
Linear-by-Linear Association	1.317	1	.251
N of Valid Cases	19		

Table C9.3 Benefitted via increased interest under the MIDP

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.309	.405
	Cramer's V	.309	.405
N of Valid Cases		19	

Table C10.1 Registered under the APDP

Crosstab

			q27		Total
			1.0	2.0	
Manufacturing type with OEM	1.00	Count	2	4	6
		% within manufacturing type with OEM	33.3%	66.7%	100.0%

		% within q27	22.2%	40.0%	31.6%
	2.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q27	0.0%	60.0%	31.6%
	3.00	Count	7	0	7
		% within manufacturing type with OEM	100.0%	0.0%	100.0%
		% within q27	77.8%	0.0%	36.8%
Total		Count	9	10	19
		% within manufacturing type with OEM	47.4%	52.6%	100.0%
		% within q27	100.0%	100.0%	100.0%

Table C10.2 Registered under the APDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.652[a]	2	.001
Likelihood Ratio	18.649	2	.000
Linear-by-Linear Association	6.013	1	.014
N of Valid Cases	19		

Table C10.3 Registered under the APDP

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.848	.001
	Cramer's V	.848	.001
N of Valid Cases		19	

Table C11.1 Benefit directly via the APDP

Crosstab

			q28.1		Total
			1	2	
Manufacturing type with OEM	1.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q28.1	0.0%	46.2%	31.6%
	2.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q28.1	0.0%	46.2%	31.6%
	3.00	Count	6	1	7
		% within manufacturing type with OEM	85.7%	14.3%	100.0%
		% within q28.1	100.0%	7.7%	36.8%
Total		Count	6	13	19
		% within manufacturing type with OEM	31.6%	68.4%	100.0%
		% within q28.1	100.0%	100.0%	100.0%

Table C11.2 Benefit directly via the APDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.033[a]	2	.001
Likelihood Ratio	17.957	2	.000
Linear-by-Linear Association	10.942	1	.001
N of Valid Cases	19		

Table C11.3 Benefit directly via the APDP

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.889	.001
	Cramer's V	.889	.001
N of Valid Cases		19	

Table C12.1 Benefit via increased orders under the APDP

Crosstab

			q28.21		Total
			1.00	2.00	
Manufacturing type with OEM	1.00	Count	1	5	6
		% within manufacturing type with OEM	16.7%	83.3%	100.0%
		% within q28.21	14.3%	41.7%	31.6%

	2.00	Count	1	5	6
		% within manufacturing type with OEM	16.7%	83.3%	100.0%
		% within q28.21	14.3%	41.7%	31.6%
	3.00	Count	5	2	7
		% within manufacturing type with OEM	71.4%	28.6%	100.0%
		% within q28.21	71.4%	16.7%	36.8%
Total		Count	7	12	19
		% within manufacturing type with OEM	36.8%	63.2%	100.0%
		% within q28.21	100.0%	100.0%	100.0%

Table C12.2 Benefit via increased orders under the APDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.698[a]	2	.058
Likelihood Ratio	5.819	2	.055
Linear-by-Linear Association	4.147	1	.042
N of Valid Cases	19		

Table C12.3 Benefit via increased orders under the APDP

Symmetric Measures

	Value	Approximate Significance

Nominal by Nominal	Phi	.548	.058
	Cramer's V	.548	.058
N of Valid Cases		19	

Table C13.1 Benefit via increased volumes under the APDP

Crosstab

			q28.22		
			1.00	2.00	Total
Manufacturing type with OEM	1.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q28.22	0.0%	42.9%	31.6%
	2.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q28.22	0.0%	42.9%	31.6%
	3.00	Count	5	2	7
		% within manufacturing type with OEM	71.4%	28.6%	100.0%
		% within q28.22	100.0%	14.3%	36.8%
Total		Count	5	14	19
		% within manufacturing type with OEM	26.3%	73.7%	100.0%
		% within q28.22	100.0%	100.0%	100.0%

Table C13.2 Benefit via increased volumes under the APDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.633[a]	2	.003
Likelihood Ratio	13.525	2	.001
Linear-by-Linear Association	8.467	1	.004
N of Valid Cases	19		

Table C13.3 Benefit via increased volumes under the APDP

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.782	.003
	Cramer's V	.782	.003
N of Valid Cases		19	

Table C14.1 Benefit via increased interest under the APDP

Crosstab

			q28.23		
			1.00	2.00	Total
Manufacturing type with OEM	1.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q28.23	0.0%	40.0%	31.6%

	2.00	Count	0	6	6
		% within manufacturing type with OEM	0.0%	100.0%	100.0%
		% within q28.23	0.0%	40.0%	31.6%
	3.00	Count	4	3	7
		% within manufacturing type with OEM	57.1%	42.9%	100.0%
		% within q28.23	100.0%	20.0%	36.8%
Total		Count	4	15	19
		% within manufacturing type with OEM	21.1%	78.9%	100.0%
		% within q28.23	100.0%	100.0%	100.0%

Table C14.2 Benefit via increased interest under the APDP

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.686[a]	2	.013
Likelihood Ratio	9.996	2	.007
Linear-by-Linear Association	6.322	1	.012
N of Valid Cases	19		

Table C14.3 Benefit via increased interest under the APDP

Symmetric Measures

	Value	Approximate Significance

Nominal by Nominal	Phi	.676	.013
	Cramer's V	.676	.013
N of Valid Cases		19	