

### **3 Automotive and Automotive Parts Industry in South Africa and KwaZulu-Natal Province**

#### **3.1 Automotive Industry**

##### **3.1.1 Overview**

The automotive industry is the largest component in the country's machinery industry. Its history dates back to the early 1920s, when CBU imports started. In 1924, Ford commenced assembly operation in Port Elizabeth. In 1926, GM followed and inaugurated an assembly plant in the same city. As production initially was on a CKD basis, when local production of parts began it was for products such as batteries, glass products and tires, for which there was strong demand in the aftermarket. Toyota, operating in Durban, started commercial production in 1961 under a licensing agreement with Wessel of Metair Group.

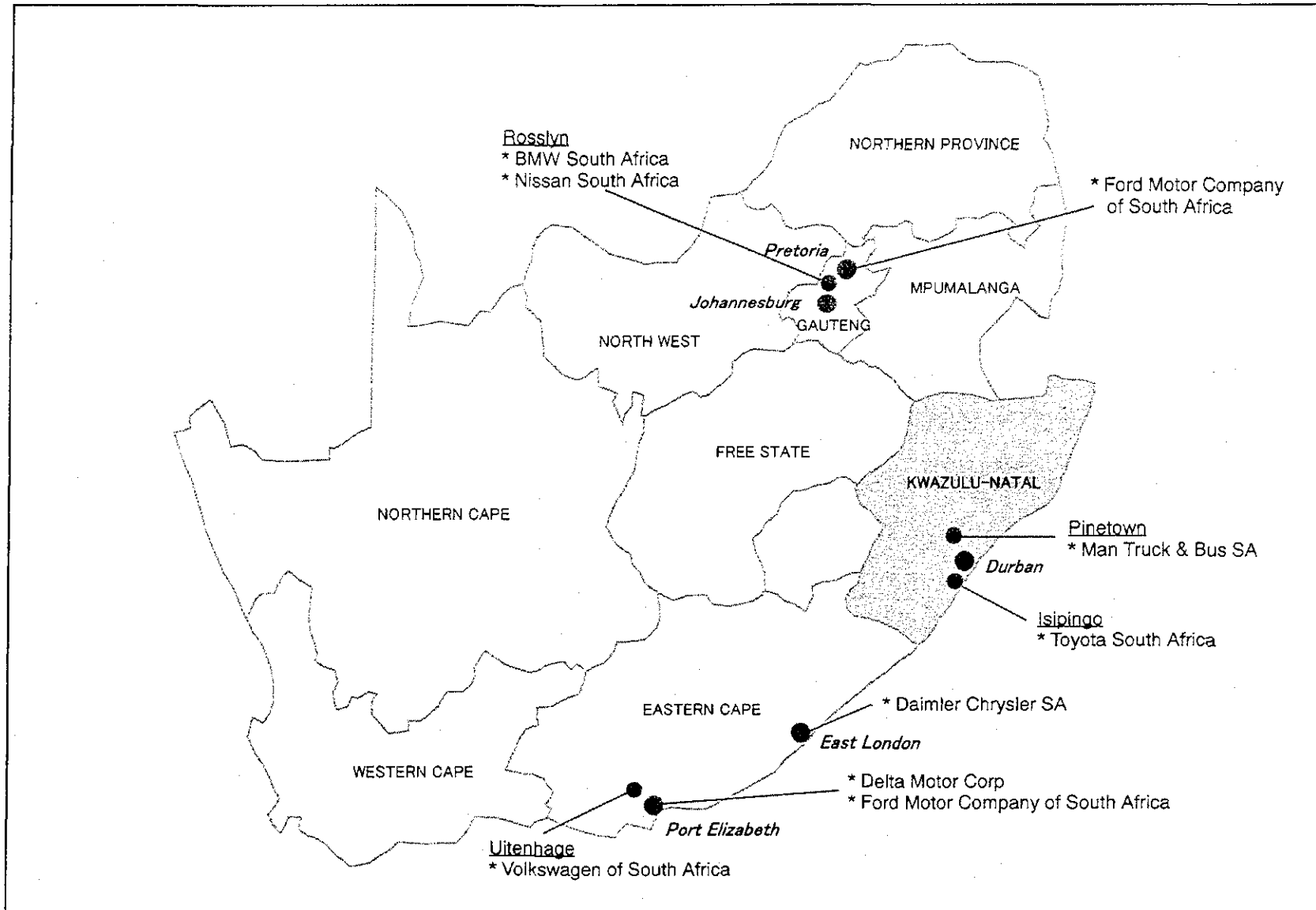
Following the above three companies, Nissan and BMW built assembly plants in Rosslyn, Volkswagen in Uitenhage, and Daimler Chrysler in East London. Thus, seven assemblers were operating in the country in the early 1960s, when the First Local Contents Program (1961 – 64) was enacted for import restriction purposes (Figure II-3-1).

The automotive industry in South Africa is characterized by the presence of seven major automakers that assemble passenger cars and commercial vehicles of varying sizes primarily for the small domestic market, where 300,000 – 400,000 vehicles are newly sold each year. In addition, Man Truck operates a small assembly plant for buses and large trucks. Other major international automakers that do not have production facilities in the country import their own CBUs or contract with local assemblers to manufacture their own models using CKD components. These makers include Volvo and Land Rover (Ford as the contract assembler) and Fiat (Nissan). Three Japanese automakers, Mazda, Isuzu and Mitsubishi, use their affiliated companies (Ford, Delta (GM) and Daimler Chrysler) for production of both passenger cars and commercial vehicles.

##### **Industry Size**

Automobile production in South Africa has ranged between 310,000 and 390,000 units annually. Table II-3-1 shows recent trends in automobile production, sales, exports and imports on a unit basis between 1995 and 2000. Table II-3-2 shows unit-based automobile sales and exports by vehicle type during the same period. The domestic market reached 420,000 units in 1996 and then continued to decline by more than 10%

Figure II-3-1 Plant Locations of Automotive Assemblers



**Table II-3-1 South African Vehicle Production and Sales Data: 1995 - 2000**

	1995	1996	1997	1998	1999	2000
Sales of domestically produced vehicles	373,712	374,758	342,535	286,159	266,349	289,333
Exports	15,764	11,553	19,569	25,896	59,716	68,031
Total domestic production	389,476	386,311	362,104	312,055	326,065	357,364
Exports as percentage of domestic production	4.0%	3.0%	5.4%	8.3%	18.3%	19.0%
Imports	22,081	46,318	56,740	65,351	59,426	66,749
Total local market (including imports)	395,793	421,076	399,275	351,510	325,775	356,082
Imports as percentage of local market	5.5%	11.0%	14.2%	18.6%	18.2%	18.7%

Note: Domestically produced vehicles include cars, light, medium and heavy commercials.

Source: NAAMSA

**Table II-3-2 Annual New Vehicle Industry Sales Performance  
by Sector and Industry Export Figures**

	1995	1996	1997	1998	1999	2000
<Domestic sales>						
Motor cars	236,584	249,838	239,762	203,821	189,370	224,122
Light commercials	128,397	129,575	114,354	99,078	96,169	105,235
Medium commercials	4,139	5,457	5,636	5,092	4,668	5,162
Trucks and buses	7,664	8,110	7,123	6,419	5,568	6,563
Total domestic sales	376,784	392,980	366,875	314,410	295,775	341,082
GDP growth rate (%)	3.4	3.2	1.7	0.1	1.2	3.1
<Exports>						
Cars	8,976	3,743	10,458	18,342	52,347	58,204
Light commercials	6,356	7,125	8,000	6,806	6,581	9,148
Trucks and buses	432	685	1,111	748	788	679
Total exports	15,764	11,553	19,569	25,898	59,716	68,031

Source: NAAMSA

each year to 320,000 units in 1999. Meanwhile, exports grew steadily during the period and reached 66,000 units in 2000. Export growth helped domestic production make a moderate recovery to 357,000 units in 2000, although it is way below the historical high of 389,000 units in 1995.

Total revenues of the automobile and related industries have been growing steadily in recent years, as shown in Table II-3-3. Revenues from the domestic market soared from R63.3 billion in 1998 to R81.3 billion in 2000. While new vehicles are the largest factor, parts and accessories also make sizable contributions. Export revenues also surged, from R10 billion to R18.9 billion, during the same period. It is interesting to note that export revenues from automotive parts exceeded those from assembled cars.

#### **Investment and Production Capacity**

Investment made in the automotive industry has been growing year after year, and exceeded R1.5 billion in 1999 and 2000 (Table II-3-4). According to NAAMSA's forecast, investment in 2001 will exceed R2.7 billion. Priority has been placed on improvement of international competitiveness so as to increase exports, particularly in the areas of product improvement, localization of parts and components, and development of export capabilities.

In contrast, investment in capacity expansion has been on the decline during the same period. This is because the present production capacity far exceeds demand. As shown in Table II-3-5, the capacity utilization rate for production of passenger cars remained at around 66% in 2000, while the international average was 76%.

The capacity utilization rate for heavy commercial vehicles (e.g., trucks) has increased seemingly despite of the decrease in production, due to the fact that some automakers withdrew from the truck sector in response to reduction of import tariff on these vehicles, and the production of remaining manufacturers has increased accordingly.

#### **Employment**

As shown in Table II-3-6, employment in the automobile assembly industry totals approximately 32,000 persons. It declined from 38,600 in 1995 but increased slightly in 2000. The automobile and related industries including automotive parts production and automobile sales employ approximately 254,000 workers as of 2000, of which automobile sales account for the largest portion.

**Table II-3-3 Motor Industry Revenue by Major Sectors**

(Unit: R million)

	1998	1999	2000
Domestic sales revenue			
New vehicles	24,200	24,900	32,650
Used vehicles	12,372	14,477	18,320
Workshop revenue	8,650	8,746	10,122
Spares, accessories & other trading revenue	18,064	17,671	20,190
Total	63,286	65,794	81,282
Export revenue			
Components	7,895	9,600	11,500
Built-up vehicle	2,100	5,200	7,400
Total	9,995	14,800	18,900
Total revenue	73,281	80,594	100,182

Source: NAAMSA

**Table II-3-4 Capital Expenditure - New Vehicle Assembly Industry**

(Unit: R million)

	1995	1996	1997	1998	1999	2000
Product, Local content and Export investments	388.5	586.1	729.7	734.5	1,170.4	1,108.7
Plant, Machinery and Production facilities	345.3	409.6	294.9	409.1	143.7	202.5
Land and Buildings	34.9	46.2	129.1	60.0	81.5	109.7
OEM support structure	78.1	129.4	111.6	138.5	115.4	140.6
<b>Total</b>	<b>846.8</b>	<b>1,171.3</b>	<b>1,265.3</b>	<b>1,342.1</b>	<b>1,511.0</b>	<b>1,561.5</b>

Source: NAAMSA

**Table II-3-5 Motor Vehicle Manufacturing Capacity Utilisation Levels**

(Unit: %)

	Industry average capacity utilisation levels					
	1995	1996	1997	1998	1999	2000
Cars	84.3	78.9	77.3	64.3	64.6	66.1
Light commercials	81.7	75.9	70.6	59.1	57.5	60.2
Medium commercials	81.3	80.0	77.6	73.6	69.7	64.2
Heavy commercials	81.9	68.3	74.2	69.3	61.9	74.8

Source: NAAMSA



**Table II-3-6 Industry Employment Levels: Average Monthly Figures**

	1995	1996	1997	1998	1999	2000
Assembly industry	38,600	38,600	37,100	33,700	32,000	32,300
Component industry	47,000	45,000	44,000	40,000	39,000	38,500
Tyre industry	11,000	10,000	9,500	9,100	9,000	8,600
Motor trade	178,000	180,000	180,000	170,000	175,000	175,000
<b>Total</b>	<b>274,600</b>	<b>272,600</b>	<b>270,600</b>	<b>252,800</b>	<b>255,000</b>	<b>254,400</b>

Source: NAAMSA, Retail Motor Industry organisation (RMI), National Association of Automotive Component and Allied Manufacturers (NAACAM) and SA Tyre Manufacturers Conference (SATMC)

### **Market Outlook**

Automobile demand in the country is expected to increase in the future for the following reasons, according to DTP's "Current Developments in the Automotive Industry" (September 2000).

- 1) Per-capita income is expected to rise on a continuous basis.
- 2) The fact that an automobile ownership is still lower than in other developing countries, in particular, the black population, constitutes a sizable potential market; present ownership is 450 vehicles per 1,000 population in the white population, 200 in the Asian, and 100 in the colored, while it is 26 in the black.
- 3) Automobile prices have been declining year after year due to reduction of protective policy for locally assembled automobiles and automotive parts.
- 4) 2.8 million out of 4.6 million units owned in the country are already 10 years old or older, and replacement demand is rising.

Other indirect factors include low interest rates and high expectation for economic recovery, successful control of inflation, and availability of diverse models offered by automakers in response to diversification of consumer preferences.

Table II-3-7 shows NAAMSA's forecast for domestic automobile sales, exports and imports. The domestic market is expected to grow 8% in 2001 and 8.3% in 2002, reaching 274,000 units. Furthermore, imports will increase rapidly, 26.3% in 2001 and 20.5% in 2002. At the same time, exports will grow 63.2% and 10.5% respectively. As a result, domestic production will increase 17.1% and 5.6% and will reach 285,000 units in 2002.

On the other hand, light commercial vehicles will remain more or less unchanged in terms of both exports and imports, whereas domestic sales will grow at an annual rate of 8% and domestic production will reach 133,100 units in 2002.

On a value basis, automobile exports in 2002 will reach R13 billion, up 75% from R7.4 billion in 2000. Accordingly, automakers are expected to increase investments for the purpose of improving productivity and introducing world-class technologies.

### **Automotive Industry in KwaZulu-Natal Province**

Toyota SA in Durban is the only automaker operating in KwaZulu-Natal Province. In addition, MAN Truck assembles trucks in Pinetown and Bell Equipment manufacturers dump trucks in Richards Bay.

**Table II-3-7 Projection of Vehicle Market Growth**

	2000	2001	2002
<b>Cars</b>			
Domestically produced			
Local sales	172,373	175,000	180,000
Exports	58,204	95,000	105,000
Sub-total	230,577	270,000	285,000
CBU imports			
NAAMSA	51,749	64,000	94,000
Non-NAAMSA	10,000	14,000	-
Sub-total	61,749	78,000	94,000
Total local market	234,122	253,000	274,000
<b>Light commercials</b>			
Domestically Produced			
Local sales	105,235	113,500	123,000
Exports	9,148	9,000	10,100
Sub-total	114,383	122,500	133,100
CBU imports (Non-NAAMSA)	3,000	3,000	3,000
Total local market	108,235	116,500	126,000
<b>Medium and heavy commercials</b>			
NAAMSA sales	11,725	13,000	14,000
Exports	679	800	900
Imports (Non-NAAMSA)	2,000	2,200	2,400
MCV/HCV market	13,725	15,200	16,400
Total aggregate market	356,082	384,700	416,400
Total aggregate exports	68,031	104,800	116,000
GDP growth rate (%)	3.1	3.3	3.5

Source: NAAMSA

Toyota SA holds a share of around 25% of national automobile sales. Its unit sales was more than 90,000 in 1997. However, production declined rapidly to the 70,000-unit level in 1998 and 1999. The company's recent production trends and plans are estimated as follows.

Year	1999 (Actual)	2000 (Estimate)	Plan		
			2001	2002	2003
Unit production	69,500	80,800	84,300	85,600	89,300

Toyota assembles seven models (as of 2000) in South Africa and annual production still remains at 40,000-unit level even in the case of most popular model, Corolla, while the annual production level is 70,000 units on the average in the case of world-class models. Thus, automakers operating in the country must improve and maintain international competitiveness in a small-lot, large variety production environment, and local parts suppliers are expected to meet customer demand to help achieve the goal.

### 3.1.2 Procurement of raw materials and parts

First of all, the current state of procurement of automotive parts varies greatly among assemblers. Secondly, localization that progressed under the LCP program is changing its course significantly under the MIDP. As local content requirements for automotive parts have been lifted, automakers are now free to decide on their own import and local procurement policies on the basis of each company's global strategy for production and procurement. As a result, the number of parts and components made locally is declining, and so is the local content. Thus, local production is decided on the basis of economic factors. (Industrial policy related to automobiles and automotive parts, and their production and export trends that reflect such policy are discussed in 3.4.)

At present, local content ranges between 40% and 60%. The number of suppliers from which each assembler makes procurement is summarized as follows<sup>1</sup>:

- Toyota 108 suppliers
- Nissan 98
- Ford 164
- Volkswagen 210
- Daimler Chrysler 140

<sup>1</sup> The enterprise interview survey.

General characteristics of procurement by automobile assemblers are described below. The structural flow of parts production and supply is shown in Figure II-3-2.

#### **Raw materials**

Steel plates and sheets are a key material used in the CBU assembly industry. Many assemblers purchase all types of steel plates and sheets, other than those used for body skin panels, from the local steel mill, ISCOR. Some assemblers entirely import steel plates and sheets because they will not pay prices quoted by ISCOR, the sole domestic supplier.

Skin panels for car bodies are made of zinc coated steel and in the case of Toyota, BMW and Daimler Chrysler all requirements are met by imports because these companies are not satisfied with the quality of products made by ISCOR. ISCOR is to receive technical assistance from Nippon Steel Corporation (NSC) of Japan and will start a new inspection facility in the second half of 2002. Toyota SA, where stamping division imports 5% - 10% of steel plate and sheet requirements, intends to switch to ISCOR products once their quality has been improved. Other steel materials including stainless steel sheets and seamless pipes, with the exception of some special products, are available from local steel mills including ISCOR.

Steel materials including plates, sheets, pipes, tubes, rods and wires, both of ordinary and stainless steel, with exception of special products, are supplied from local steel mills. However, zinc-coated steel sheets made by local mills have problems related to quality, cost and delivery schedule and are mostly imported.

Also imported are thick hollow tubes, thin steel sheets requiring stress relieving, wires for high grade springs, and stainless mesh.

Welding rods and wires used for welding steel materials are procured locally, while those for brazing of non-ferrous alloys are imported.

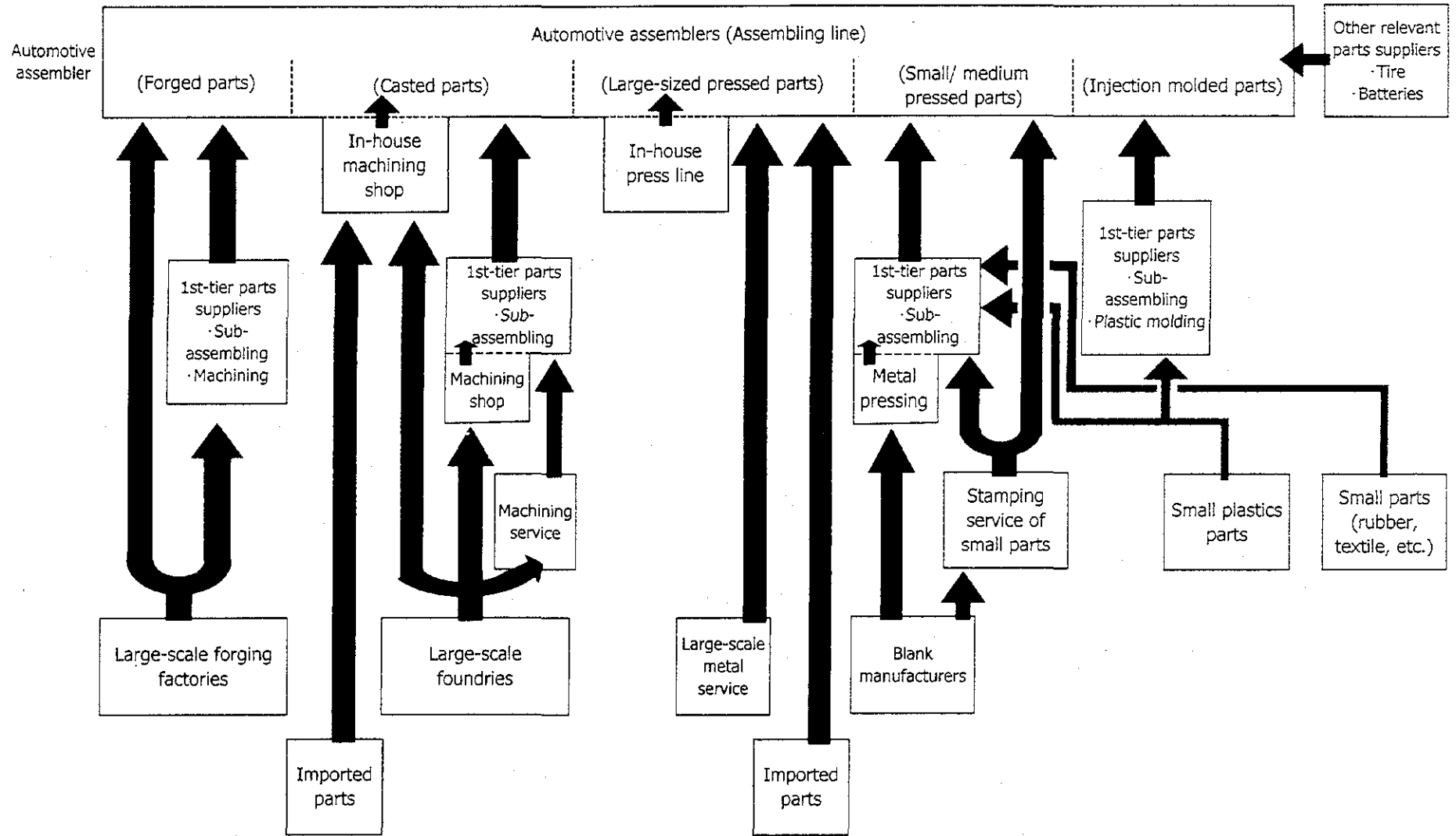
Aluminum alloy materials, both extruded and in sheet form, are primarily purchased from a local company, Hulett. Some products are imported from Germany and Switzerland when Hulett products do not meet specification requirements.

As for plastic resin, both local and imported products are used. Foreign manufacturers are operating in the country.

Water base paint used for coating plastic molded products is mainly purchased from foreign manufacturers operating locally.

It should be noted that many customers specify particular brands for resin and paint.

Figure II-3-2 Product Flow of Automotive Components in South Africa



II-3-14

Source: Field survey on automotive assemblers, and parts suppliers.

Leather and textile products used for seat covers and trim are largely purchased from local sources.

### **Parts**

Major parts purchased by component suppliers are metalworking products, including castings, forgings, press parts, and machined parts, and injection molded plastic products.

Metalworking products have long been manufactured in the country and their quality has achieved a satisfactory level, so that local products are widely used. However, high pressure die cast parts are limited to parts of relatively small size.

Among castings, those requiring a high level of airtightness, such as booster cylinders for brakes and master cylinders for clutches, are imported. A relatively high percentage of locally made castings are rejected by customers due to presence of cavities, including blowholes.

Injection molded plastic products are internally made by many first-tier suppliers, and there is a small number of second-tier suppliers specialized in injection molding, and relatively small size products. Outside procurement is largely made for smaller parts.

Molded and extruded rubber products, such as radiator hoses, gaskets and seals, and CV joint boots, are made by domestic affiliate of Dunlop, Wayne Rubber (Durban-based) and other suppliers.

### **Metalworking component**

The metalworking industry is one of the important supporting industries for the entire automotive industry (including the parts industry). The industry in the country has undergone rapid growth due to localization of automobile production. It mainly consists of metal stamping, casting and forging subsectors, which are in turn supported by basic process operations, such as welding, brazing, machining, heat treatment, electroplating, surface treatment, and tool and die making.

#### **(1) Stamped metal parts**

Toyota, Nissan, Volkswagen and DC have their own large presswork lines, where large parts are made, and purchase small- and medium-sized parts from local suppliers. Since Ford does not have a stamping plant, it imports key safety parts and procures other stamped parts from local sources.

Large pressed parts, such as body panels, chassis frames and fuel tanks, are often made by automobile assemblers, including TSD (Toyota), Nissan, Volkswagen and Daimler Chrysler.

Delta and Ford do not have any internal shops and procure all these parts from outside. Manufacturers specialized in stamping and capable of making large press parts include Comau S.A. (Uitenhage), August Lacpple S.A. (Rosslyn) and Stateline. Many suppliers that use stamped parts as primary materials for their products have in-house stamping shops, including GUD, Luk and Dorbyl. In addition, there are a large number of manufacturers specialized in smaller press parts, including cross members, body inner and bumper inner fittings, suspension components, axle carriers, and catalytic converter cases.

In KwaZulu-Natal Province, companies specialized in the manufacture of smaller stamped parts for Toyota are operating in and around Durban and Pinetown. Most of them make sub-assemblies including welding and some do painting. As for tools and dies used for stamping operations, those of simple design are internally made while progressive dies and precision ones of complex design are imported from Europe, Taiwan, Japan and other countries.

The major issue facing the stamping subsector is the deterioration of equipment due to aging. In particular, smaller stamping manufacturers are lagging in equipment modernization. In particular, an auto-feed system for materials, a work piece automatic transfer system, progressive dies and high speed press machines have not been introduced by most shops. Also, they lack knowledge on the quick exchange of dies.

## (2) Casting

No automobile assembler has its own casting shop.

Castings and forgings used for engines and underframes are primarily procured from local sources, with some imports, because no assembler has an in-house shop. These parts include:

- Cylinder blocks (Grey iron)
- Cylinder heads (aluminum alloy casting)
- Pistons (aluminum alloy casting)
- Intake manifolds (aluminum alloy casting)
- Exhaust manifolds (Grey iron)
- Crankshafts (SG iron)
- Flywheels (SG iron)
- Brake disks (Grey iron)
- Brake drums (Grey iron)
- Hubs (SG iron)
- Steering knuckles (SG iron)



The assemblers believe that the above metalworking parts made by local suppliers have reached a near satisfactory quality level, with some improvement.

The largest supplier of automotive castings (Grey iron, SG iron, aluminum alloy etc.) is M&R Foundries, which has its own casting shops, as follows:

- Autocast Div (Britz): Grey iron & SG iron
- Port Elizabeth Foundry: Grey iron & SG iron
- Gearing Foundry Division (Cape Town): Grey iron & SG iron
- GEMTEC (Port Elizabeth): Aluminum alloy

In addition to M&R Group, there are two large casting manufacturers, SALCAST Division (Benoni South) and Atlantis Foundries (Western Cape) in Dorbyl. These three companies supply most castings to automobile assemblers. Some medium / small foundries are found in Pinetown, KwaZulu-Natal Province.

As for high-pressure die cast parts, only small parts are made locally. Following are the major die cast parts suppliers:

- Zealous Pressure Castings
- Natal Die-Casting Co. (Pinetown)
- FEMCO
- ECOSSE
- Krynie Brothers (Johannesburg)

Aluminum wheels (mainly for export) are made by large manufacturers including the following:

- Alloy Wheels International (Port Elizabeth)
- NF Die Casting (Johannesburg)
- TSW (Port Elizabeth)
- Tiger Wheel

There is no aluminum wheel maker in KwaZulu-Natal Province. The locally made castings, especially grey iron and SG iron, face a high rejection rate by customers due to presence of blowholes and other cavities.

### (3) Forging

No automobile assembler has an in-house forging shop and forging parts are entirely purchased from outside sources. While some assemblers import safety-critical parts,

most assemblers and first-tier suppliers make procurements from the following major forging companies:

- Atlantis Forge (Western Cape)
- Dorbyl Group-Guestro Forge (Uitenhage)
- Auto Industrial Group HUBCO (Johannesburg)

Major forgings for automotive parts include crankshafts, camshafts, connecting rods, axle shafts, steering knuckles, and gear blanks. No complaint about forgings and their procurement has been heard from automobile assemblers and first-tier suppliers.

#### (4) Machining

Automobile assemblers (including Nissan, Ford, Toyota, Volkswagen and Daimler Chrysler) purchase metalworking materials for engine components from outside sources and process them into metalworking parts at in-house machine shops. Also, many first-tier suppliers have their own machine shops to process internally made or procured materials, including Robert Bosch, TENNECO, Luk, Spicer Axle, Italian Engineering and Precision Tools in Dorbyl Group, and Gemtec Machinery in M&R Group.

These metalworking materials are finished to components through heat treatment including I.H. hardening, and surface treatment including cementation and nitration, and blacking.

In KwaZulu-Natal Province, there are second-tier suppliers specialized in machining operations, such as Triple C Productions and Production Components of C&J Services Group.

#### (5) Tool and die making

Many companies that are engaged in molding operations and require dies and molds for the purpose have their own tool and die making shops. There is a very small number of companies specialized in tool and die making. Automobile assemblers and major stamping companies have large in-house tool and die making shops.

TDM, Toyota's tool and die making division, has the largest capacity in South Africa and makes medium- and large-sized stamping dies for doors, body parts, dashboards, chassis frames, and fuel tanks. Following TDM, three companies have relatively large production capacities; Comau S.A. Body Systems (Uitenhage; press parts supplier), Delta (Port Elizabeth; automobile assembler), and August Laepple S.A. (Rosslyn; press parts supplier).

Nissan had a larger capacity than TDM's, which is now much smaller, and the company imports some parts from Japanese tool and die makers in Thailand.

Volkswagen has reportedly moved its tool and die making division to Brazil. Grey iron and SG iron products – materials for large press dies – are mainly supplied from EXMECO Foundry (Port Elizabeth), which make die materials by the lost foam pattern process by using foamed styrene models furnished by tool and die makers. Polystyrene foam materials are supplied by SAGEX in Durban.

Small stamping dies, except progressive dies and high precision dies, are made by press work companies at their own tool and die shops.

On the other hand, plastic injection and die cast molds are mainly imported from Italy, Taiwan, Brazil and Japan.

Tool steel used to make small stamping dies is mostly imported from Germany.

The major issue facing the tool and die industry is a cyclic fluctuation of work volume due to periodical model changes by automobile assemblers. As a result, tool and die manufacturers do not grow and molding companies have to operate their own tool and die making shops to assure supply.

#### (6) Plastic injection molded parts

Only a handful of manufacturers, less than 10 (mainly foreign companies), can make plastic injection molded automotive parts. In particular, most assemblers internally make or import large parts, such as bumpers and instrument panels. Some foreign manufacturers have started local production, but assemblers are not satisfied with local products in terms of quality, technology and/or cost.

#### (7) Components

Assemblers show varying reactions to local procurement of components. German automakers (BMW, Volkswagen and DC) responded quickly to the MIDP and IEC programs and started the development of modular components and the establishment of the JIT delivery system earlier than others. They asked for cooperation of first tier suppliers, especially large European and American suppliers. As a result, foreign large suppliers started local production and joint ventures or licensing agreements with local suppliers were established, and local procurement of components is steadily on the rise. As first-tier suppliers upgrade production techniques, components that are currently shipped to P&A, the aftermarket and export markets will find the way to the domestic OEM markets.

## 3.2 Supply of Automotive Parts in South Africa

### 3.2.1 Overview

Localization of automotive parts started with batteries, tires and glass products for the aftermarket. In 1958 when domestic automobile demand reached 100,000 units, local content rose to 20%.

During the 1960s, when the international public opinion against apartheid increased dramatically, the Government, fearing international sanctions, adopted the business development strategy of fostering the "local content" of manufactured goods, particularly in the defense and automotive industries. Business and financing incentives and protection were provided for the creation of small and medium-size enterprises which could manufacture locally produced components for automobiles, consumer goods, and armaments.

In the 70s and 80s, with a decrease in the birth rate of white people in South Africa, the Government promoted the immigration from Europe and neighboring African countries. The immigrants started businesses in the restaurants and retail shop sectors, and at the same time, many auto repair, panel beating, tool and die shops, and small manufacturing facilities were opened by these emigrants.

*Localization further progressed under the Local Contents Program (1961 – 1995). Automotive parts with the highest level of local content are machined and metal components, including castings, forgings, stamped parts, and machined parts, as well as plastics molded products except injection molded ones.*

Compared to other developing countries, South Africa has the following distinguishing characteristics related to supply of automotive parts.

- 1) A large number of European-based international suppliers are operating in the country, including those specialized in large casting and forging production (more than two in each category). There are press lines owned by automobile assemblers and large press shops. Specialized machining service companies provide advanced service. Thus, medium- and large-sized suppliers having high levels of production technology are present in the country.
- 2) Large company groups consisting of automotive parts suppliers have been formed by domestic interests (plus joint ventures with foreign companies). This reflects the fact that the advanced processes are already taken care of by large foreign suppliers or assemblers themselves.

- 3) Thus, automobile assemblers, large metalworking companies, and large automotive suppliers tend to keep production processes in-house, resulting in a low level of linkage with supporting industries (especially, there are few manufacturers specialized in automotive parts and related services). As an exception, a relative close linkage is observed in the sector making small and medium-sized stamped parts. In other categories, including plastics parts, the linkage is simply weak as assemblers and first-tier suppliers have installed most types of molding machines they need for in-house production, while procuring small parts from local suppliers.
- 4) Automobile assemblers and parts suppliers do not form vertical supply chains, in which suppliers form a pyramidal structure under each assembler. Instead, first-tier suppliers and large metalworking companies (e.g., foundries, forging and press shops) do not serve a specific assembler on an exclusive basis. They deal with multiple assemblers relatively freely. In fact, less and less second- and third-tier suppliers maintain close relationships with specific first-tier suppliers.

Companies related to the automotive parts industry can be broadly classified into the following types.

- 1) Those having large casting, forging, press work or machining capabilities and specialized in manufacture of large or special parts and components that require advanced production skills. They are often joint ventures with foreign companies or their affiliates. Many companies in joint ventures belong to one or another company group owned by local capital.
- 2) Specialized parts suppliers that constitute key elements of the first-tier supplier base. Unlike the companies in type 1), which are specialized in a certain field of technology (e.g., metalworking, a company of this type possesses proprietary technology (or a set of technologies) required to make diverse products in a specific category. For instance, this type of company manufacturers wire harnesses, front-end modules, door modules, and seat modules. Their major distinguishing factor is possession of subassembly capability and they will most likely adapt themselves to the modulation demand by European and American automakers. In addition, many of them belong to local company groups and have acquired technology, capital or both from foreign partners. Foreign suppliers operating in South Africa are often classified in this type. Another example is a local company developing its own electronic safety devices.
- 3) Suppliers that depend more on first-tier suppliers or assemblers and are specialized in manufacture of metalworking parts through stamping, machining, coating and/or surface treatment. Manufacturers of plastics parts are included, although they are

small in number because most plastics parts are made by company groups in 2) that have large plants. Notably, suppliers of this type are primarily engaged in manufacture of automotive parts and are mostly SMEs.

- 4) Suppliers of non-critical parts or small parts (having simple designs) that are delivered to parts manufacturers. They are positioned as first-, second- or third-tier suppliers, depending on the their customer. Many are engaged in metalworking operation, such as stamping, metal-sheet work or machining, but some supply molded plastics, rubber or fabric parts. For suppliers of this type, automotive parts represent small portions of total production as other types of products are also made. They are classified in SMEs or MEs (micro enterprises).
- 5) Job shops that process semi-finished parts furnished by parts suppliers and are primarily specialized in metalworking operations, including coating, electroplating, heat treatment, and machining. Again, their major customers are in other industries and automotive parts account for a minor part of their business. Manufacturers that bring them semi-finished parts are first- or second-tier suppliers. Companies of this type are SMEs or MEs.
- 6) Suppliers of standard machine elements, such as blanks for stamping, tubes, partially processed steel wires, flanges, springs, bolts and nuts. There are a large number of companies in this category. They supply these products to automotive parts manufacturers and others as well. They should be considered to be distributors of basic industrial materials. Some companies have machining or other processing functions. Most companies are SMEs and MEs, while steel centers provide the same function.

In addition, automobile assemblers have their own shops for supply of a variety of parts. Originally, the parts that they made were large ones and components that were not suitable for importation, or were not available from local sources because special equipment was required for their manufacture. Now, these parts are increasingly available from local suppliers. In particular, European assemblers are promoting modularization of parts, a move which is accelerating outside sourcing. Thus, captive production has different meanings for different companies, including those that established in-house shops in response to the imposition local content standards and have continued to operate or even expand them.

Today, there are as many as 300 suppliers in the country, including second- and third-tier suppliers<sup>2</sup>. They include suppliers in 4) – 6), which receive orders of automotive parts supply, which represent the minor portion of their businesses. The members of NAACAM, which are classified in 1) through 3) and mainly represent the relatively large purchase orders from automotive parts manufacturers, totals 84 companies.

Local large suppliers include those in the Dorbyl Automotive Technologies Group and the Metair Group, and make a wide range of components.

In addition, there are a large number of European and American suppliers, including Federal Mogul, Johnson Controls, Dunlop, Behr, Bosch, ZF and Venture.

### **3.2.2 Employment**

Table II-3-6 shows the recent changes (1995 – 2000) in the number of employees of the automotive industry by sector. Employment in the auto parts sector continued to decline during the period, amounting to 38,500 as of 2000.

### **3.2.3 Outputs and markets**

Table II-3-8 shows combined sales of 84 NAACAM member companies in 1999 and 2000, by market segment, and Figure II-3-3 shows the sales in a chart. Generally, automotive parts that are eventually delivered to assemblers as OEM components account for one-third of the total market, and some of them are presumably exported by assemblers as part of assembled cars or system components.

Parts and accessories – those delivered to assemblers as repair parts and sold to the aftermarket through assemblers' channels – represented 17% of the total in 1999 and 19% in 2000. Similarly, those directly supplied by parts manufacturers to the aftermarket accounted for 18.5% in 1999 and 14% in 2000.

On the other hand, parts supplied to other parts manufacturers (other NAACAM member companies) are relatively small in scale (value), accounting only for 2% of the total market. This indicates the lack of a vigorous linkage within the automotive parts industry.

The parts exported by suppliers account for approximately 30% of the total market.

NAACAM estimates that its member companies account for nearly 50% of total sales. Thus, total sales in the country will be twice the NAACAM figures.

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<sup>2</sup> Estimated from the results of the interview surveys of automobile assemblers.

Table II-3-8 Size of Automotive Components Industry, 1999 and 2000

Year	Employee (persons)			Capital Expenses (R '000)	Sales to: (R '000)					
	Monthly	Hourly	Total		OE	P&A	P. AFT.	Other NAACAM members	Export	Total
1999	5,151	17,744	22,895	371,527	2,765,697	1,422,644	1,562,181	118,955	2,570,885	8,440,362
2000	6,377	19,376	25,753	429,284	4,032,188	2,209,504	1,630,526	308,885	3,444,448	11,625,551

Notes: 84 NAACAM members only.

OE: Original equipment

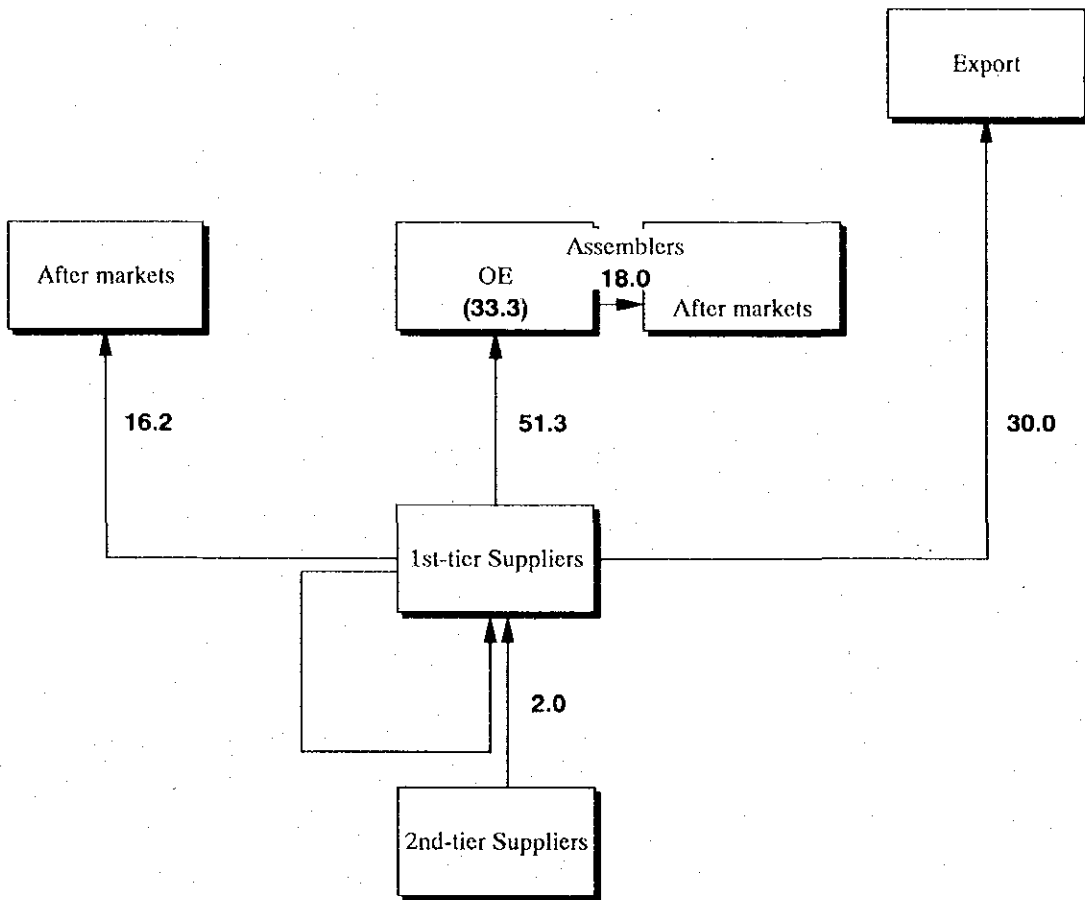
P&A: Parts & accessories

P. AFT.: Parts for aftermarket

Source: NAACAM statistical survey



**Figure II-3-3 Flow of Locally Produced Automotive Parts in South Africa**



Notes: 1) Figures show the flow of parts, in terms of percentage of total local parts production in 1999 and 2000, on the average.

2) NAACAM members only.

Source: NAACAM

### 3.2.4 Exports

Table II-3-9 shows export trends between 1995 and 1999, by key component. As clearly seen in the table, component exports grew rapidly after the introduction of the MIDP and IEC schemes. DTI estimates that the value of exports in 2000 reached at least R12 billion.

In particular, catalytic converters and stitched leather components, both of which use natural resources available in the country, account for a high percentage of total exports. In addition, silencers, exhaust pipes and wheels (aluminum alloy) show rapid growth.

The major destination is the EU, which takes more than 70% of exports (Table II-3-10). Germany holds the largest share. From Table II-3-8, the export percentage is around 30%. There are no statistical data that give an overall picture.

## 3.3 The Automotive Components Industry in KwaZulu-Natal Province

### 3.3.1 Overview

The automotive parts industry plays an important role in the KwaZulu-Natal Province economy. Table II-3-11 shows basic data on the machinery and related sectors in KwaZulu-Natal Province, including automobiles and automotive parts. Among the subsectors listed here, those related to the automobile and automotive parts industries are casting of metals, other fabricated metal products and metalwork service activities, and motor vehicles, bodies and parts for motor vehicles, trailers and semi-trailers.

	Automobiles/ bodies/ parts	Percentage share of the manufacturing sector	Combined total of the three sectors	Percentage share of the manufacturing sector
No. of companies	213	4.2	690	13.8
Employment	17,989	5.6	28,912	9.0
Output (R million)	7,165,398	9.7	9,018,551	12.3
Valued added (R million)	1,220,151	5.7	1,855,136	8.7

It should be noted, however, that the above automobile, car bodies and parts sectors do not represent the automobile and automotive parts industries that are the subject of the present study. A large number of automotive parts manufacturers seem to be classified in metalwork service activities. On the other hand, in the plastics product sector, not many companies should be classified as automotive parts suppliers. At the same time, the

**Table II-3-9 Major Component Exports**

(Unit: R million)

	1995	1996	1997	1998	1999	% of total (1999)
Catalytic converters	388	485	835	1,520	2,569	29.6
Stitched leather components	1,019	1,259	1,408	1,854	1,888	19.5
Tyres	219	296	342	498	639	6.6
Silencers/ exhaust pipes	76	170	151	493	598	6.2
Road wheels and parts	175	227	325	446	518	5.4
Engine parts	112	137	285	390	383	4.0
Wiring harnesses	41	92	136	207	304	3.1
Automotive tooling	259	279	309	256	264	2.7
Glass	49	71	105	112	147	1.5
Radiators	77	107	93	108	111	1.1
Ignition/ starting equipment	4	16	30	47	94	1.0
Transmission shafts and cranks	29	38	7	62	85	0.9
Filters	13	42	55	72	85	0.9
Brake parts	23	29	38	76	79	0.8
Shock absorbers	38	53	56	63	77	0.8
Body parts/ panels	18	39	39	30	75	0.8
Car radios	7	4	29	47	73	0.7
Batteries	53	60	88	79	68	0.7
Gauges/ instruments/ parts	18	28	29	30	59	0.6
Clutches/ shaft couplings	16	21	33	51	54	0.6
Other components	684	598	722	1,454	1,504	15.5
<b>Total component exports</b>	<b>3,318</b>	<b>4,051</b>	<b>5,115</b>	<b>7,895</b>	<b>9,674</b>	<b>100.0</b>

Note: Complete disaggregation of customs data is not always possible and certain categories, such as tooling, may contain a small percentage of non-automotive exports.

Source: DTI

**Table II-3-10 Destination of Component Exports**

(Unit: %)

	1995	1996	1997	1998	1999
Germany	45.0	47.1	48.9	49.1	46.1
United Kingdom	6.4	8.0	9.5	9.1	10.3
USA	4.2	5.0	6.4	6.1	10.0
Belgium	8.0	6.2	4.6	5.2	5.6
Spain	3.6	2.7	1.7	4.7	4.3
Zimbabwe	4.4	5.9	6.5	4.2	3.3
Italy	1.3	1.5	1.1	2.4	3.3
Netherlands	1.9	3.0	2.4	1.6	1.9
France	0.7	0.8	2.1	1.3	1.6
Mozambique	1.4	1.2	1.4	1.1	1.3
Zambia	1.7	1.9	2.0	1.4	1.0
Japan	0.3	0.2	0.2	0.8	1.0
Other	21.1	16.5	13.2	13.0	10.3
EU	67.7	69.7	70.7	73.8	73.6
Africa (incl. SADC)	13.2	14.6	13.9	10.6	9.2
SADC	10.2	13.5	12.7	9.0	7.6
North America	4.7	5.3	6.0	7.7	10.3
Latin America	4.3	3.7	2.2	0.8	0.9

Source: DTI

**Table II-3-11 Major Index of Automotive-related Industries in KwaZulu-Natal Province**

Sectors & sub sectors	Establishments		Paid Employees		Salaries & wages		Output		Intermediate consumption		Value added		Net profit/ loss	
	No.	%	No.	%	R '000	%	R '000	%	R '000	%	R '000	%	R '000	%
Basic metals, fabricated metal products, machinery & equip.	1,164	23.20	47,219	14.62	2,526,082	21.62	13,595,641	18.48	8,622,758	16.47	4,972,883	23.42	1,548,938	26.71
Of which:														
Casting of metals	4	0.08	127	0.04	5,316	0.05	18,985	0.03	10,984	0.02	8,001	0.04	2,029	0.03
Other fabricated metal products; metalwork service activities	473	9.43	10,798	3.34	408,302	3.49	1,834,168	2.49	1,207,184	2.31	626,984	2.95	167,735	2.89
Electrical machinery & apparatus	121	2.41	3,120	0.97	132,588	1.13	630,025	0.86	445,345	0.85	184,680	0.87	36,042	0.62
Radio, television & communication equip. & apparatus; medical, precision & optical instr.	71	1.42	3,070	0.95	82,527	0.71	476,777	0.65	359,275	0.69	117,502	0.55	1,983	0.03
Transport equip.	270	5.38	19,719	6.11	907,792	7.77	7,382,112	10.03	6,070,074	11.59	1,312,038	6.18	237,899	4.10
Of which:														
Motor vehicles, bodies & parts for motor vehicles; trailers & semi-trailers	213	4.25	17,989	5.57	836,711	7.16	7,165,398	9.74	5,945,247	11.36	1,220,151	5.75	224,020	3.86
Total: KwaZulu-Natal	5,017		322,979		11,685,940		73,586,329		52,356,841		21,229,488		5,798,900	

Source: Statistics South Africa

metalwork service sector for the most part is made up of companies that do not serve the automobile and automotive parts industries.

Subsequent to collection of the above data, from the 1996 Census of Industry, the industrial machinery and shipbuilding (including repairing) industries have been losing in terms of their percentage share to the other industries, particularly the automobile and automotive parts industries.

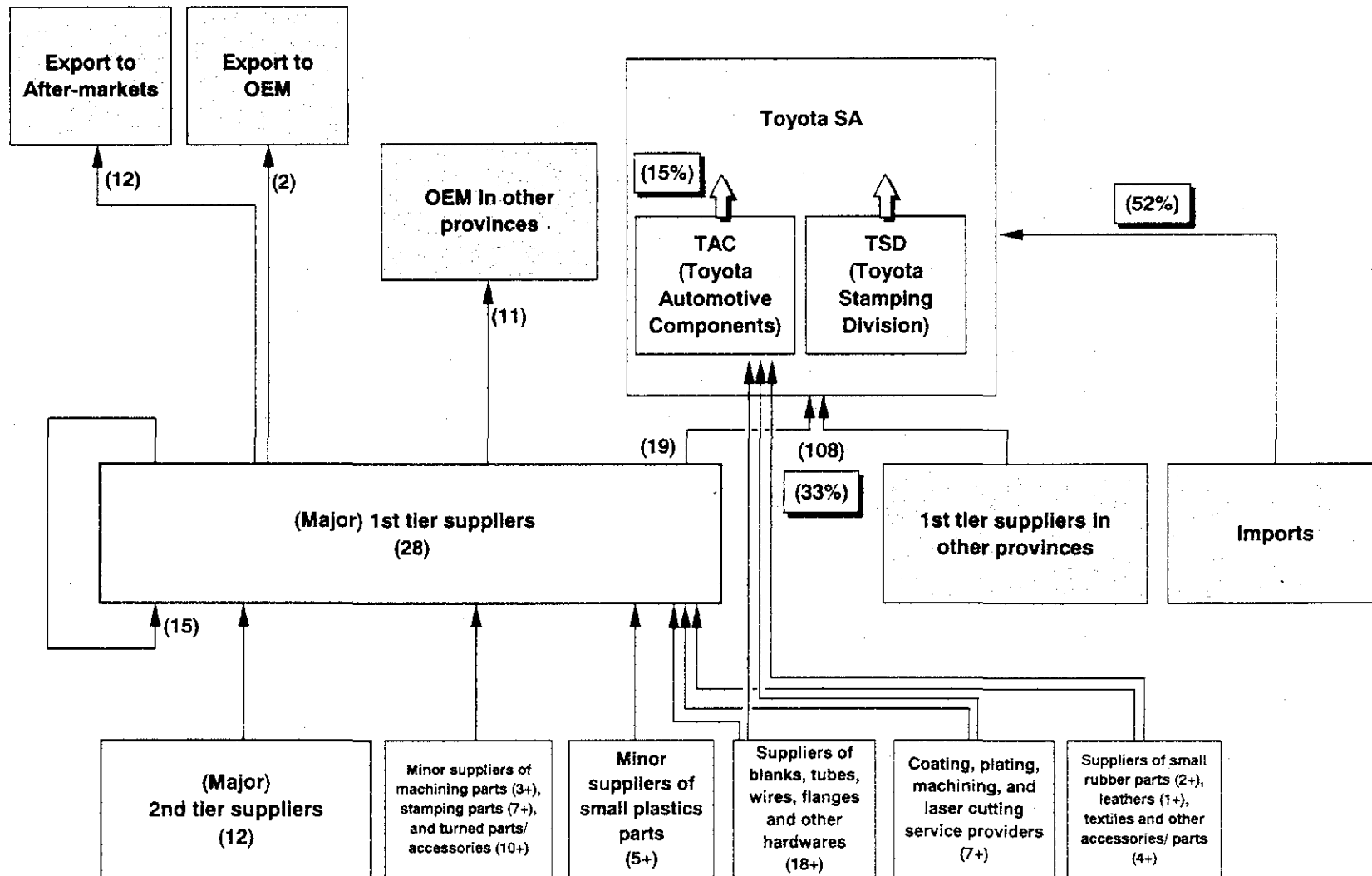
In 3.3.2, 40 leading automotive parts manufacturers are analyzed to obtain information supplementing the statistical data that do not directly reflect the current status of the automotive parts industry in KwaZulu-Natal Province. Nevertheless, there is no list covering all manufacturers of automotive parts, including those serving as supporting industries for the automobile sector by providing various products or services. To identify the current status of automotive parts suppliers as accurately as possible, the study team obtained from assemblers and leading first-tier suppliers lists of suppliers, which include previous or potential suppliers (not currently purchasing any parts). The study team contacted suppliers on these lists, and found that some companies did not respond (including those that rejected to respond or that have gone out of business) and others did not make automotive parts. Based on the results of the field surveys, the study team estimated the entire structure of the automotive parts industry in KwaZulu-Natal Province, as shown in Figure II-3-4.

Toyota SA, which is virtually the only automobile assembler in KwaZulu-Natal Province, purchases raw materials, parts and services from more than 300 local suppliers, including some outside KwaZulu-Natal Province. Among them, suppliers of automotive parts total 108.

At the same time, Toyota SA has two internal shops making automotive parts: Toyota Stamping Division (TSD) that makes large parts; and Toyota Automotive Components (TAC) that makes assemblies, spare parts, and accessories. In addition, the company has large plastics molding machines to make bumpers.

In KwaZulu-Natal Province, there are 28 first-tier suppliers, of which 19 supply a variety of parts to Toyota SA. Toyota's local content has reached 48%, of which TAC accounted for 15%. Thus, the remaining 33% come from outside sources, and most castings and forgings as well as a high percentage of press parts are purchased from outside of the province.

Figure II-3-4 Estimated Automotive Parts Supply Structure in KwaZulu-Natal Province



Notes: Figures in brackets mean the estimated number of companies involved on the flows or the jobs.

Figures in boxes mean the approximate percentage of parts supplied to Toyota SA, through the route.

On the other hand, 11 out of 28 first-tier suppliers in KwaZulu-Natal Province deliver parts to automobile assemblers outside the province, two companies export products to foreign assemblers and 12 ship to the overseas aftermarket.

Then, there are 12 first-tier suppliers that are primarily engaged in production of automotive parts and supply them to first-tier suppliers. By type of product, 5 companies are specialized in machining and surface treatment (mainly stamping), 3 plastics molding, 2 die casting, and 2 others. All except one company (a large manufacturer supplying aluminum extruded pipes) are small- or medium-size companies.

In addition to the 40 suppliers, there are a number of companies that make the following automotive-related parts in KwaZulu-Natal Province. Note that they make automotive parts together with other parts and do not always make automotive parts.

Classification of parts supplied		No. of companies (estimate)
Small metallic parts	Machined parts	3 +
	Stamping parts	7 +
	Assemblies / accessories	10 +
Small plastics parts		5 +
Preliminary processing and supply of blanks, tubes, wires, flanges and other metalworking products		18 +
Metalworking service such as coating, electroplating and machining		7 +
Other small parts	Rubber parts	2 +
	Leather parts	1 +
	Other parts and accessories	4 +

(Note) "+" indicates that the actual number of companies can be slightly larger than the figure shown.

In addition, there are 50 – 60 companies specialized in supply of hardware (bolts, nuts and screws) and metalworking and engineering services, which serve as would-be suppliers of automotive parts. It should be noted, however, that these companies include trading agents.



Finally, there are suppliers of basic materials used by the automotive industry, including steel materials, fuels and chemicals.

In the following section, the leading 40 automotive parts manufacturers (including first-tier and second-tier suppliers) are statistically analyzed<sup>3</sup>. They are established manufacturers specialized in automotive parts in KwaZulu-Natal. Their location and size classification are summarized in Table II-3-12.

### **3.3.2 Location of the automotive components industry**

The industry is concentrated in five distinct areas as listed below. This means that employment, turnover, manufacturing, raw materials, market and export activities are properly studied at both the aggregate provincial and individual location level. The five areas are the Southern Durban Industrial Basin (Prospecton, Jacobs and Mobeni), Pinetown (including New Germany and Westmead), Central Durban (including Springfield Park), Pietermaritzburg (principally Willowton) and Rest of KZN (primarily Isithebe and Stanger).

As revealed in Table II-3-12, the most important location for automotive component manufacturers in KwaZulu-Natal is Pinetown, where 40.0% of firms are located, followed by the Southern Durban Industrial Basin with 32.5%. The Southern Durban Industrial Basin's importance is largely a result of the location of Toyota SA in the area, whilst Pinetown's importance stems from favorable industrial ratings that were made available to industrial investments in that area in the past, as well as the availability of land and excellent infrastructure linkages to the Durban harbor, Gauteng province and Southern Durban Industrial Basin (for supply to Toyota). The only other locality of some importance is Pietermaritzburg, where seven automotive component manufacturers are located. While Pinetown has more automotive component manufacturers than the Southern Industrial basin, as shown in Table II-3-12, the Southern Durban Industrial Basin has a greater proportion of large firms and as will be shown below, it is therefore the most important location for the automotive components sector in terms of employment. Pinetown is, however, the more important location in terms of output levels.

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<sup>3</sup> Data on the 40 companies were obtained from KZN Benchmarking c.c.'s database on automotive parts manufacturers.

**Table II-3-12 Location of Automotive Component Activity in KZN (n=40)**

Location	% of firms	Large firms (employ <200)	Medium firms (employ <100, >=200)	Small firms (employ >=100)
Southern Durban Industrial Basin <sup>1)</sup> (n=13)	32.5	<ul style="list-style-type: none"> <li>• Aunde TAP</li> <li>• Federal Mogul Friction</li> <li>• Feltex Foam Mouldings</li> <li>• GUD Filters</li> <li>• Rockham</li> <li>• Wayne Rubber</li> </ul> (n=6)	<ul style="list-style-type: none"> <li>• Fascor</li> <li>• Feltex Automotive Trim</li> <li>• Venture SA</li> </ul> (n=3)	<ul style="list-style-type: none"> <li>• Commercial Elastic</li> <li>• Grupo Antolin</li> <li>• L&amp;J Tools</li> <li>• SAI Automotive Autoplastic</li> </ul> (n=4)
Central Durban <sup>2)</sup> (n=3)	7.5	<ul style="list-style-type: none"> <li>• Aunde Cartrim</li> <li>• PFK Electronics</li> </ul> (n=2)		<ul style="list-style-type: none"> <li>• Sabex Manufacturing</li> </ul> (n=1)
Pinetown <sup>3)</sup> (n=16)	40.0	<ul style="list-style-type: none"> <li>• Behr Engine Cooling</li> <li>• Federal Mogul Engine Bearings</li> <li>• Midlands Trim</li> <li>• Smiths Manufacturing</li> </ul> (n=4)	<ul style="list-style-type: none"> <li>• Duys Component Manufacturers</li> <li>• Federal Mogul Valves</li> <li>• Microfinish</li> <li>• Natal Die Casting</li> </ul> (n=4)	<ul style="list-style-type: none"> <li>• Automould</li> <li>• Braceable</li> <li>• era-Beier</li> <li>• Component Technologies</li> <li>• Triple C</li> <li>• Houghton Plastics</li> <li>• Sondor</li> <li>• Technique</li> </ul> (n=8)
Pietermaritzburg (n=7)	17.5	<ul style="list-style-type: none"> <li>• Filpro</li> <li>• Shurlok International</li> <li>• Ramsay Engineering</li> </ul> (n=3)	<ul style="list-style-type: none"> <li>• Pressure Die Castings</li> </ul> (n=1)	<ul style="list-style-type: none"> <li>• Kaymac Rotomoulders</li> <li>• Stronga Exhausts</li> <li>• Webroy</li> </ul> (n=3)
Other <sup>4)</sup> (n=1)	2.5	<ul style="list-style-type: none"> <li>• Hesto Harnesses</li> </ul> (n=1)		

Notes: 1) Including Mobeni, Jacobs, Prospecton, Rossburgh and Umbogintwini

2) Including Umbilo and Springfield Park

3) Including Westmead and New Germany

4) Areas outside of metropolitan locations

Source: KZN Benchmarking cc

### **3.3.3 Employment**

Despite the fact that most of the 40 KwaZulu-Natal automotive component manufacturers are located in the greater Pinetown area, the Southern Durban Industrial Basin is the more important locality from an employment point of view. Of the 9,722 persons employed at the 40 automotive component firms, 3,263 or 33.6% of total employment, are located in the Southern Durban Industrial Basin. This is clearly revealed in Figure II-3-5, as is the fact that Pinetown is also an important location for automotive component manufacturing employment. A significant 2,936 jobs are based in the area, with this representing 30.2% of total provincial employment. Pietermaritzburg is of significantly less importance, contributing 14.4% of total employment, with central Durban contributing 10.5% and the remainder of KwaZulu-Natal 11.3%.

The majority of employment is moreover concentrated amongst the larger automotive component manufacturers employing 201 employees or more. This is clearly revealed in Table II-3-13 below. More than 78% of employees are employed in large automotive component manufacturers, with 12% employed in medium size operations (101 to 200 employees) and 10% in small firms employing 100 or less persons. Despite the concentration of firms in the medium to small category the vast majority of employment in the industry is generated among the major players in the regional industry.

### **3.3.4 Manufacturing activities and outputs**

Both first and second tier automotive component activities are evident in KwaZulu-Natal Province, thus highlighting the historical embeddedness of the industry. Unlike many of the newly developing economies, which have lightly entrenched automotive component industries using mostly imported inputs, the KwaZulu-Natal Province automotive components industry has strong backward and forward linkages in the domestic economy. For example, of the 40 automotive component firms included in this analysis, 12 would be classified as predominantly second tier suppliers (Table II-3-14).

**Figure II-3-5 Aggregate Employment Levels in the KwaZulu-Natal Automotive Components Industry (n=40)**



Source: KZN Benchmarking cc

**Table II-3-13 Breakdown of Employment According to Large, Medium and Small Firm Contribution  
in Each Geographical Location**

Location	Large firms (employ <200)	%	Medium firms (employ <100, >=200)	%	Small firms (employ >=100)	%	Total	%
Southern Durban Industrial Basin	2,576	33.9	449	39.0	238	24.4	3,263	33.6
Central Durban	960	12.6	0	0.0	65	6.7	1,025	10.8
Pinetown	1,894	24.9	571	49.7	471	48.2	2,936	20.2
Pietermaritzburg	1,065	14.0	130	11.3	203	20.8	1,398	14.3
Other	1,100	14.5	0	0.0	0	0.0	1,100	11.3
<b>Total</b>	<b>7,595</b>	<b>100.0</b>	<b>1,150</b>	<b>100.0</b>	<b>977</b>	<b>100.0</b>	<b>9,722</b>	<b>100.0</b>

Source: KZN Benchmarking cc

**Table II-3-14 Breakdown of First and Second Tier Suppliers According to Location**

Location	Tier 1 count	% of firms	Tier 2 count	% of firms	Total
Southern Durban Industrial Basin	10	76.9	3	23.1	13
Central Durban	3	100.0	0	0.0	3
Pinetown	9	56.3	7	43.7	16
Pietermaritzburg	5	71.4	2	28.6	7
Other	1	100.0	0	0.0	1
<b>Total</b>	<b>28</b>	<b>70.0</b>	<b>12</b>	<b>30.0</b>	<b>40</b>

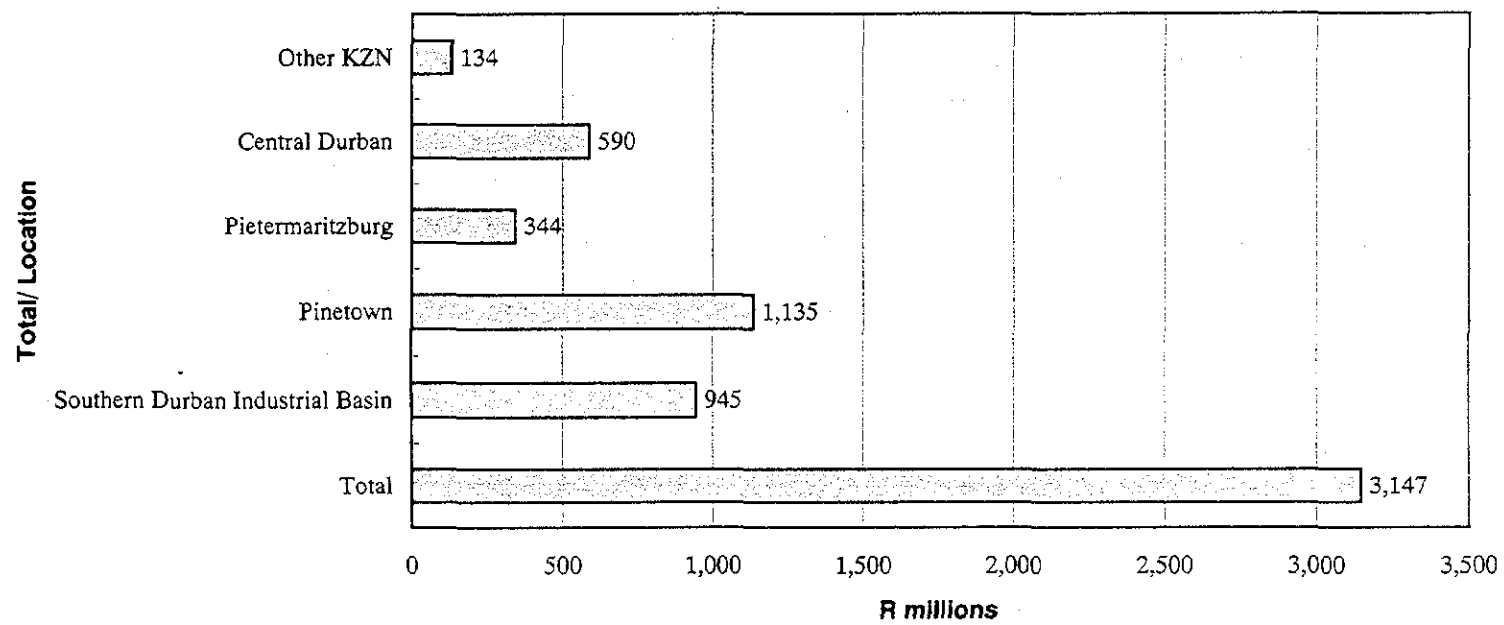
Source: KZN Benchmarking cc

Output level in the province's industry, which is approximately R3.15 billion, largely matches the employment structure. No individual location appears to have a propensity of high-value-added automotive component manufacturers, although it would appear as if the greater Pinetown area has a slightly higher output per employee level than the Southern Durban Industrial Basin. This relates to the types of firms located in Pinetown, e.g. Midlands Trim, which manufactures very high price leather seat covers. The most important automotive localities in the province in terms of output level are Pinetown (R1.135 billion worth of output, representing 36.1% of the provincial industry), followed by the Southern Durban Industrial Basin (R945 million, or 30.3% of the provincial industry) and Central Durban (R590 million, or 18.7% of the provincial industry) (Figure II-3-6).

It is clear that the most important creators of output in the industry are the large automotive component manufacturers employing more than 200 persons. The 16 firms that fall into this category have a combined turnover of R2.7 billion, which is six times the aggregated turnover levels of the medium and small size firms, thus constituting 85.7% of the provincial industry's total output (Table II-3-15).

Given its import-substituting past the province's automotive industry is made up of a disparate number of automotive sub-sectors. The principle manufacturing activities in the province are metal forming, metal pressing and assembly (each representing 17.5% of

**Figure II-3-6 Aggregate Output Levels for the KwaZulu-Natal Automotive Components Industry  
(n=40, Rand millions)**



Source: KZN Benchmarking cc

**Table II-3-15 Annual Turnover by Firm Size Suppliers  
in KwaZulu-Natal Province**

	n	Turnover (R million)	Average turnover per firm (R '000)	% Provincial industry
Large firms (employ <200)	16	2,697	168,563	85.7
Medium firms (employ <100, >=200)	8	250	31,250	7.9
Small firms (employ <1, >=100)	16	200	12,500	6.4
Total	40	3,147	78,675	100

Source: KZN Benchmarking cc



principle manufacturing activities in the province<sup>4</sup>), while molding is also important with 15.9% of principle manufacturing activities.

The molding, here, is primarily plastic injection molding, although roto-molding and rubber molding is also evident. The importance of these manufacturing processes is clearly revealed in Figure II-3-7 above although it is important to note that the findings are severely skewed by the sizes of the firms involved in each of these manufacturing activities. *Metal forming and metal pressing are, for example, over-represented among the small automotive component manufacturers, that do not make a significant contribution to the provincial industry's output.* In addition, cutting and sewing is the principle manufacturing activity of two of the four largest automotive component manufacturers in KwaZulu-Natal and as such its importance is far greater than the findings presented in Figure II-3-7 suggests. This is revealed when exploring the size breakdown of the firms in Table II-3-16.

According to the composition of manufacturing activities by firm size, certain manufacturing activities, such as cutting and sewing, are restricted to large firms. Assembly activities are also heavily weighted towards the large firms, although not exclusively so. A large number of smaller firms perform metal pressing and molding operations as well as metal forming.

From Table II-3-17 it can be seen that the firms based in the South Durban Industrial Basin and Pinetown regions have a greater diversity of operations than do the other areas. The South Durban Industrial Basin have a significant number of firms performing molding, and assembly operations, while the Pinetown region has a propensity for metal pressing, metal forming and molding activities. Outside of these two regions, the only significant number of firms performing any operation is in Pietermaritzburg, performing molding operations. The automotive components industry does not have a significant presence in the Central Durban and remaining KwaZulu-Natal regions.

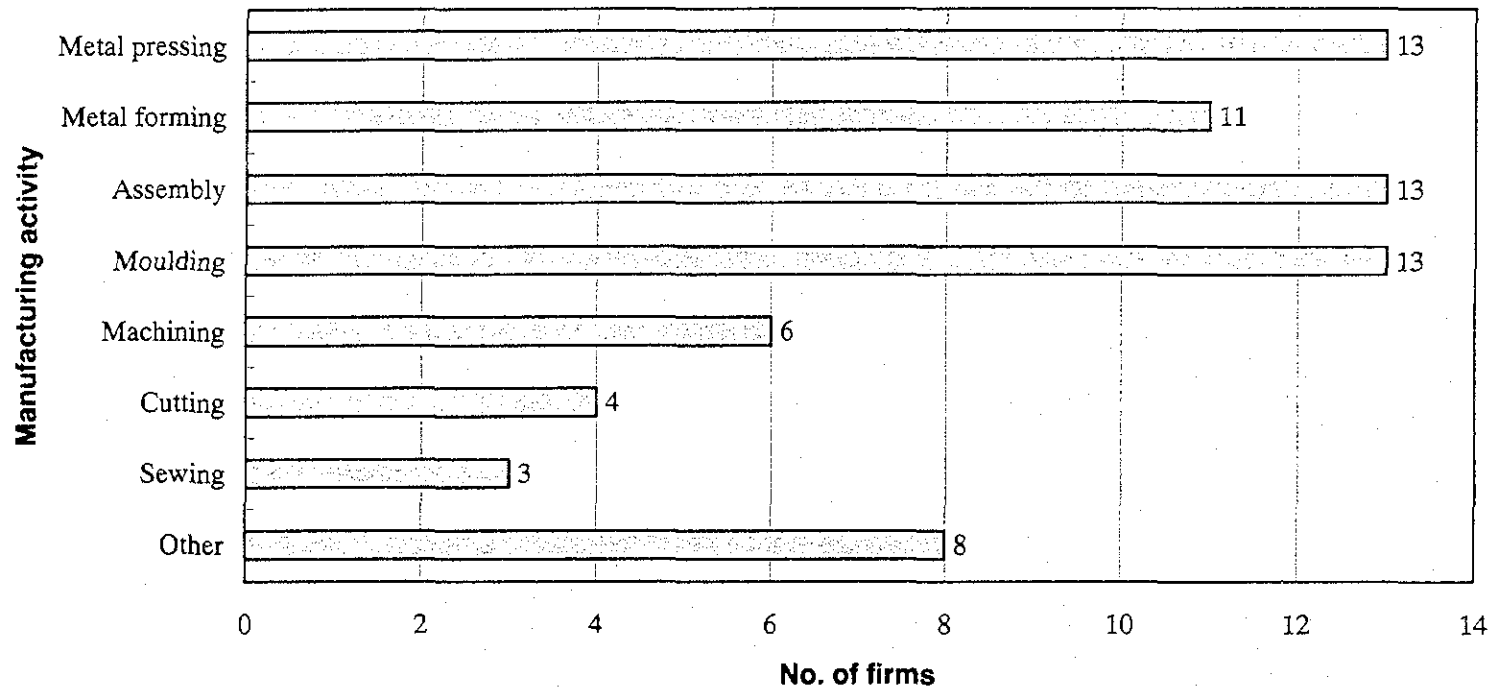
### **3.3.5 Raw materials usage**

Given the wide variety of automotive component manufacturers located in KwaZulu-Natal, the raw materials usage of the provincial industry is diverse. As revealed in Figure II-3-8 the most important inputs into the industry are ferrous metals, polymers, chemicals and textiles, with less important inputs being non-ferrous metals.

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<sup>4</sup> Note that the number of principle manufacturing activities (n=71) exceeds the number of firms (n=40) as a number of firms have two or even three principle manufacturing activities

**Figure II-3-7 Principle Manufacturing Activities of KwaZulu-Natal Automotive Component Manufacturers (n=71)**



II - 3 - 42

Source: KZN Benchmarking cc

**Table II-3-16 Breakdown of Principle Manufacturing Activities  
of Automotive Component Manufacturers  
According to Small, Medium and Large Firm Size**

Location	Large firms (employ <200)	Medium firms (employ <100, >=200)	Small firms (employ >=100)	Total
Metal pressing	5	2	6	13
Metal forming	5	2	4	11
Assembly	10	1	2	13
Molding	5	3	5	13
Machining	2	2	2	6
Cutting	4			4
Sewing	3			3
Other	4	3	1	8
<b>Total</b>	<b>38</b>	<b>13</b>	<b>20</b>	<b>71</b>

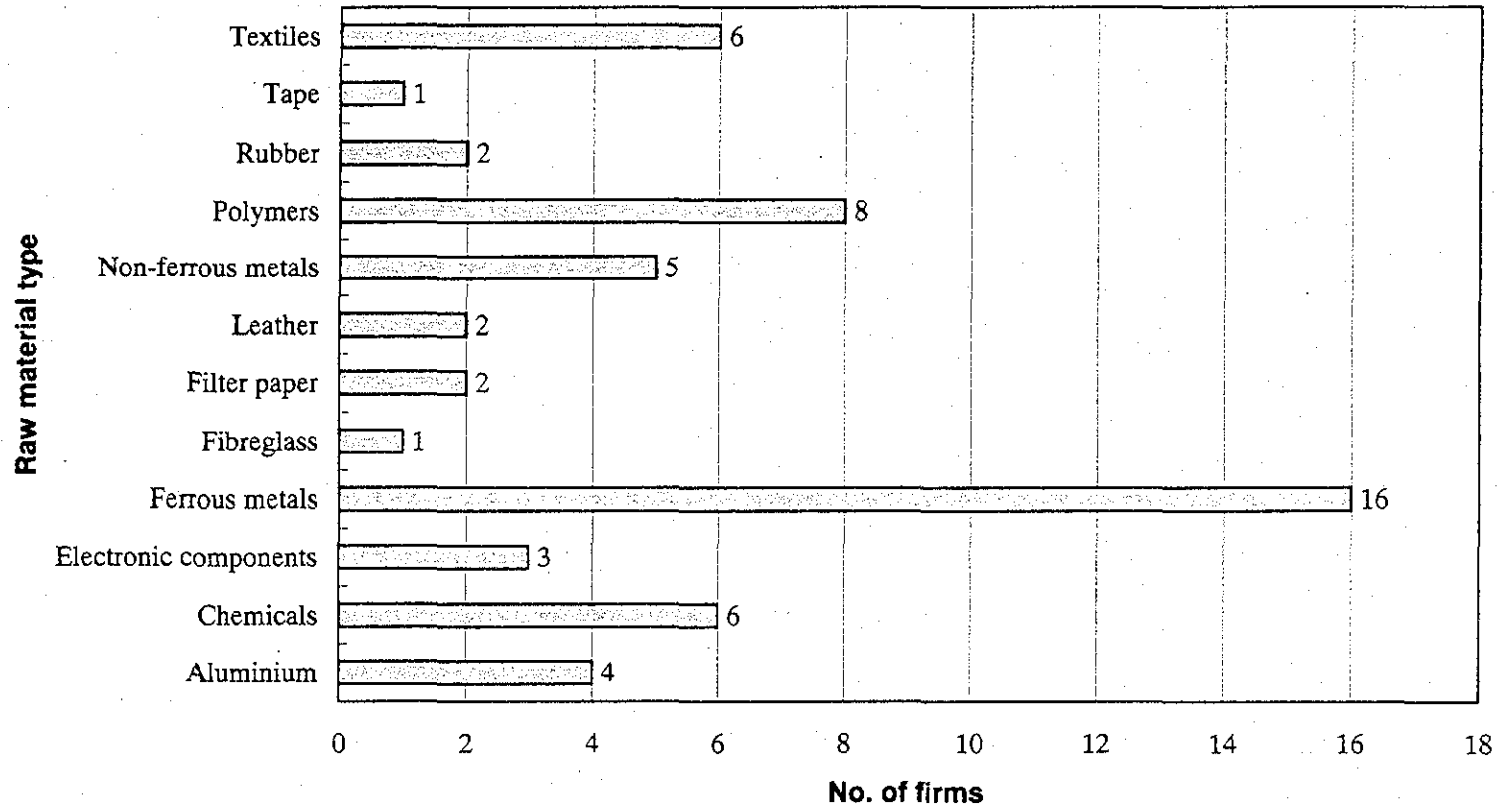
Source: KZN Benchmarking cc

**Table II-3-17 Breakdown of Principle Manufacturing Activities of Automotive Component Manufacturers According Location**

<i>Location</i>	Southern Durban Industrial Basin	Pinetown	Pietermaritzburg	Central Durban	Other KZN	Total
Metal pressing	4	6	3			13
Metal forming	3	6	2			11
Assembly	4	3	4	1	1	13
Molding	6	5	2			13
Machining	1	3	1	1		6
Cutting	1	1		1	1	4
Sewing	1	1		1		3
Other	4	2	1	1		8
Total	24	27	13	5	2	71

Source: KZN Benchmarking cc

**Figure II-3-8 Raw Material Usage by Firms in the KwaZulu-Natal Automotive Components Industry (n=56)**



II - 3 - 45

Source: KZN Benchmarking cc

Table II-3-18 shows the breakdown of raw materials usage in the industry by geographical location; Table II-3-19 gives the same according to firm size. The two tables reveal that the South Durban Industrial Basin has a high concentration of firms that use *chemicals, ferrous metals and textiles as raw materials*. The Central Durban region, on the other hand, has a number of firms producing products from ferrous metals, non-ferrous metals and polymers. Ferrous metals and polymers are used in the Pinetown region. Of all the raw materials utilized by the firms in KwaZulu-Natal, ferrous metals seemed to be important across all firm sizes. Table II-3-19 further reveals that polymers are a particularly important raw material to small firms.

### **3.3.6 Market**

The single most important market for the Southern Durban Industrial Basin KwaZulu-Natal based automotive component manufacturers is Toyota South Africa (in terms of both OEM and OES supply). Other OEMs, the independent aftermarket and the export market are also, however, *important markets for the firms*. *Not all of the large automotive component firms supply Toyota, with MAN Truck and Bus (located in Pinetown) and Bell Equipment (in Richards Bay) also important KwaZulu-Natal based purchasers of automotive components.*

Due to a number of factors, including ownership and global connectivity issues, certain automotive component manufacturers are also more focused on other South African OEMs, as well as the international aftermarket.

A *disaggregation of this market presence according to the geographical location categories used in this section is presented in Table II-3-20, and as revealed there are significant patterns visible in the industry*. Toyota plays a significant role in the South Durban Industrial Basin, with the firms based in this region indicating that Toyota was by far the most important market for them. These firms also show a very low level of export focus in the aftermarket and none whatsoever to international OEMs. The Pinetown firms have a very different focus from those in the South Durban Industrial Basin in that although Toyota still forms a significant part of their market, their prime market is made up of the first tier suppliers. This is largely the result of the number of second tier suppliers located in the greater Pinetown area.

**Table II-3-18 Breakdown of Raw Materials Usage According to Geographical Location**

Location	Southern Durban Industrial Basin	Central Durban	Pinetown	Pietermaritzburg	Other KZN	Total
Chemicals	5	1				6
Electronic components			1	1	1	3
Ferrous metals	5	7	3	1		16
Fiberglass	1					1
Filter paper	1		1			2
Leather		1		1		2
Non-ferrous metals		7	2			9
Polymers	2	4	2			8
Rubber	1	1				2
Tape					1	1
Textiles	5	1				6
<b>Total</b>	<b>20</b>	<b>22</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>56</b>

Source: KZN Benchmarking cc

**Table II-3-19 Breakdown of Raw Materials Usage According to Firm Size**

Location	Large firm contribution (employ <200)	Medium firm contribution (employ <100, >=200)	Small firm contribution (employ <1, >=100)	Total
Chemicals	2	2	2	6
Electronic components	3			3
Ferrous metals	6	4	6	16
Fiberglass			1	1
Filter paper	2			2
Leather	2			2
Non-ferrous metals	3	3	3	9
Polymers	2	2	4	8
Rubber	1		1	2
Tape	1			1
Textiles	2	1	3	6
Total	24	12	20	56

Source: KZN Benchmarking cc



**Table II-3-20 Breakdown of Automotive Component Manufacturer  
Market Presence According to Geographical Location**

	Toyota	International OEM	Other SA OEM	Domestic aftermarket	International aftermarket	Tier 1	Total
Southern Durban Industrial Basin	12		5	2	2	4	25
Central Durban	4	1	3	6	5	9	28
Pinetown	2		2	3	3	2	12
Pietermaritzburg		1		1	2		4
Other	1		1				2
<b>Total</b>	<b>19</b>	<b>2</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>15</b>	<b>71</b>

Source: KZN Benchmarking cc

Table II-3-21 gives the composition of the automotive component manufacturer market according to firm size. The South Durban Industrial Basin has a significant Toyota and Other SA OEM market focus. The first tier suppliers are slightly less important in terms of their market focus. The Central Durban firms are primarily focused on four markets, namely those of the first tier suppliers, domestic aftermarket, international aftermarket and Toyota. The large firms in KwaZulu-Natal show a broad market focus. Whilst Toyota represents the most significant market, other South African OEMs, the domestic aftermarket and the international aftermarket are also important. The international OEMs and first tier markets appear to be less important to the large firms. The medium firms are mostly focused on Toyota, while the small firms are concentrated on Toyota and first tier markets.

### **3.3.7 Exports**

Given the increasingly strong international aftermarket presence of a number of KwaZulu-Natal based automotive component manufacturers, as well as the establishment of two large leather seat manufacturers in the greater Durban area, levels of exporting from the province's industry are relatively high. This is revealed in Figure II-3-9, which reveals that roughly R1.3 billion was generated from automotive component exports in 2000. This equates to 40.6% of the 40 firms' automotive output. This exporting is concentrated in two areas – the greater Pinetown area and Central Durban, with the Southern Industrial Basin firms exporting significantly less.

As revealed in Table II-3-22, much of this exporting is done by the large automotive component manufactures. The majority of the small and medium size automotive component manufacturers remain tied to the domestic automotive industry.

## **3.4 Positioning of the Automotive Industry and Future Outlook for Procurement of Automotive Parts**

### **3.4.1 Industrial policy related to the automotive industry and the industry's reaction**

#### **General Outline**

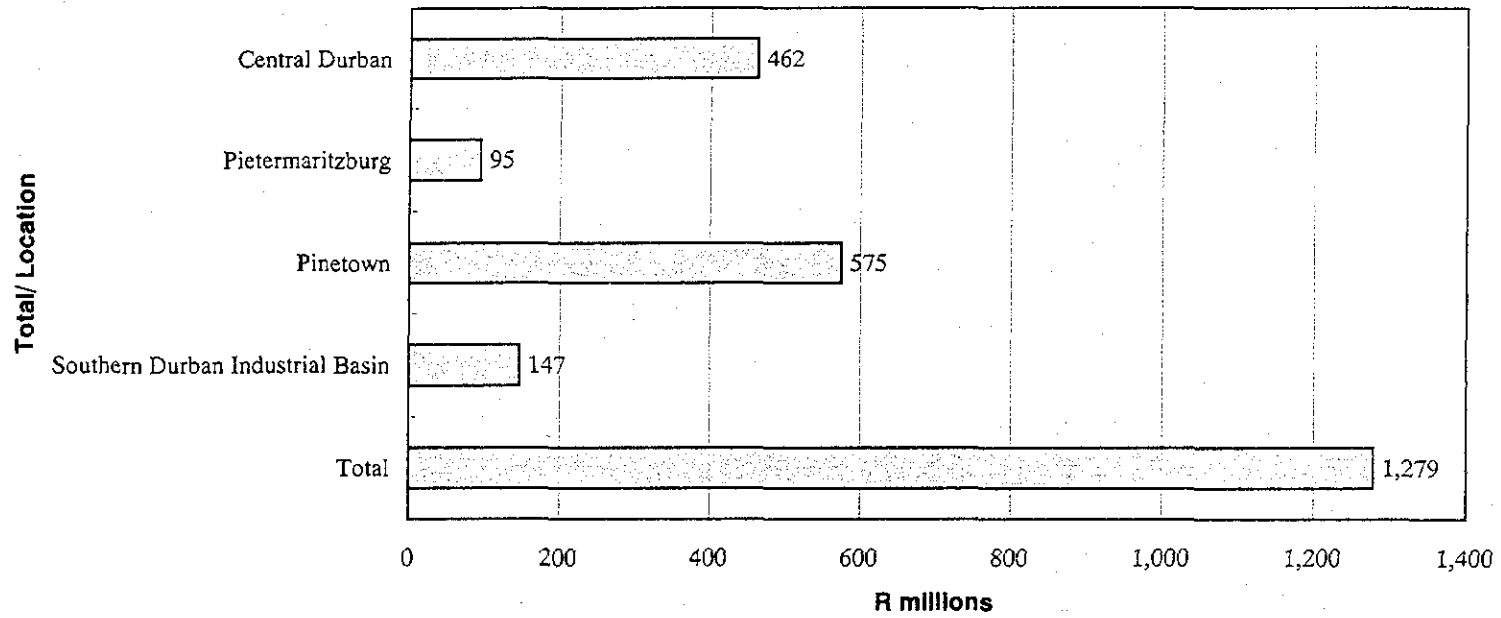
The South African government has recognized the importance of the automobile and automotive parts industries in the national economy from early times and has been implementing industrial policies focusing on these sectors.

**Table II-3-21 Breakdown of Market Presence According to Firm Size**

	Toyota	International OEM	Other SA OEM	Domestic aftermarket	International aftermarket	Tier 1	Total
Large firm contribution (employ <200)	9	2	8	8	7	2	36
Medium firm contribution (employ <100, >=200)	5		3	3	2	3	16
Small firm contribution (employ <1, >=100)	5			1	3	10	19
Total	19	2	11	12	12	15	71

Source: KZN Benchmarking cc

Figure II-3-9 Value and Location of Exports from the KwaZulu-Natal Automotive Components Industry



**Table II-3-22 Breakdown of Exporting According to Firm Size**

	n	% Firms exporting less than 10% of turnover	% Firms exporting more than 10% of turnover	Average: exports as turnover %	Total value of exports (R000s)
Large firms (employ <200)	16	5	11	31.6	1,229,610
Medium firms (employ <100, >=200)	8	6	2	15.3	26,850
Small firms (employ <1, >=100)	16	13	3	11.2	22,500

Source: KZN Benchmarking cc

The automotive industry policy up to 1995 gave priority to localization and promotion of domestic industries.

The Local Contents Program (LCP) was started in 1961 and continued until the sixth period (1989 – 1995). During the period, automobile production grew steadily to 300,000 – 400,000 units. The parts industry expanded with the increase in the number of LCP items, the rise in the LC ratio (66%) and growth of the aftermarket.

However, while the LCP promoted localization of the automotive industry, it made the industry lag behind the wave of globalization. In particular, the small market is crowded, with seven assemblers, who expanded production models to 34 (after 1993) and increased production costs thereby.

After 1995, the policy underwent a major change under the influence of a drastic approach, the Motor Industry Development Program (MIDP).

The government decided to promote liberalization of the automotive industry that had been protected by the import substitution policy, and to help the industry attain international competitiveness, and this led to introduction of the first MIDP (1995 – 2002) in 1995. Under the MIDP, all local contents regulations are terminated and tariff rates on CBU and CKD components will be reduced to 40% and 30%, respectively, by 2002.

At the same time, the Import-Export Complementation Scheme (IEC) was started. By introducing the duty rebate system, it successfully stimulated exports and imports by assemblers and suppliers. The MIDP will be extended until 2007. Tariff rates on CBU and CKD components will be lowered to 30% and 25%, respectively, by 2007.

#### **MIDP (Motor Industry Development Program)**

MIDP is the program designed to help the automobile and automotive parts industries to grow steadily and acquire international competitiveness. This means that the government intends to promote a phased integration of the previously protected (regulated) industry into the global automotive industry, together with rationalization and modernization of production in the industry.

- 1) A gradual reduction in tariffs and the abolition of local content requirements, to expose the industry to greater international competition

The planned tariff reduction schedule for imported CBUs and CKD parts is summarized as follows (in %).

	1995	1999	2002	2007
CBU's	65.0	50.5	40.0	30.0
CKD parts	49.0	37.5	30.0	25.0

- 2) The encouragement of higher volumes and a greater degree of specialization through allowing exporting firms to earn rebates on automotive import duties

This aims to promote exports of assembled cars and parts by combination with various tariff reduction programs, thereby to expand production for each segment and encourage automakers to focus on specific models and parts by terminating localization requirements that are contradictory to economic rationality.

The currently available tariff reduction programs include DFA (Duty Free Allowance) and IEC (Import/Export Complementation), which are limited to exporters who have the IRCC (Import Rebate Credit Certificate). The IRCC is used to prove eligibility for import tariff exemption and can be transferred (one time only) or sold to another exporter who is also registered with the program.

DFA exempts companies participating in the MIDP from import duties on up to 27% of automobile sales (valued at *ex-factory price*). Similarly, IEC allows duty free imports of assembled cars and automotive parts up to the total value of passenger car and light commercial vehicle exports. For exports of automotive parts, import tariff exemption is applied to the amount equivalent to 70% of imports of assembled cars and 100% of parts. (These percentages will be reduced in several steps.)

In 1998, exports eligible for the import duty rebate were dominated by automotive parts, which accounted for 83.7% of the total. In 1999, assembled car exports grew rapidly, to account for 24.7%. This indicates that the program produced the export promotion effect for assembled cars.

- 3) The introduction of a range of supply-side measures designed to upgrade the capacity of the industry in all spheres

In this area, the efforts focusing on development of local automobile clusters should attract attention. In KwaZulu-Natal Province, automobile and automotive parts related industries in Greater Metro Durban have launched cluster initiatives and are making development (business) plans on their own.

Finally, as part of efforts to upgrade automobile related technologies, AIDC

(Automotive Industry Development Center) was established with CSIR as the core organization.

#### **Response of automobile assemblers**

Automobile assemblers have been reacting to these programs as follows.

- 1) First of all, they have been rationalizing (reducing) production models. Up to four to five years ago, a total of 47 models were produced. Now, they have reduced that to 37. NAAMSA predicts that they will be reduced to 27 in the future. At the same time, assemblers have promoted rationalization of their production systems, including procurement from multinational suppliers (not insisting on local sourcing), development of modular parts, and delivery based on the JIT system. For instance, BMW previously produced 3, 5 and 7 Series and is now manufacturing 3 Series only. Toyota will discontinue production of Camri at the time of the next model change and focus on Carolla and other models, while it plans to import new Camri models.
- 2) Also, assemblers plan to expand exports of assembled cars (selected models). For instance, BMW plans to export 3 Series by positioning South Africa as an export base for the global market.
- 3) Thirdly, they are expanding exports of parts and components. At present, they are trying hard to export parts aiming at the use of the IEC. Ford is now exporting engines and expanding its engine factory in Port Elizabeth in order to boost production capacity from 20,000 units to 200,000 units annually. This is part of rationalization efforts that focusing on the specific product and cannot be achieved if supply is limited to the domestic market. The strategy also contributes to reduction of import tariffs on parts and components used for local assembly.

Thus, the government policy has produced the intended results by encouraging exports of automobiles and automotive parts and promoting growth of investment, production and employment.

As seen in Table II-3-2 (export trends) and Table II-3-7 (export outlook), exports of passenger cars have been growing significantly. This accompanies growth of capital spending by assemblers. Table II-3-4 shows capital spending trends between 1995 and 2000. Annual spending having continuously increased since 1996, NAAMSA predicts that it will reach R2.7 billion in 2001. It should be noted, however, that capital spending seems to be primarily directed to rationalization efforts in response to the MIDP, the IEC and globalization, rather than the increase in CBU production, as judged from the low level of capacity utilization rate of 70% since 1996 (Table II-3-5).



### 3.4.2 Future outlook for parts procurement

Procurement decisions by automobile assemblers will be increasingly made in the context of the global sourcing strategy. As assemblers concentrate their production to a selected number of models, the kind of parts to be procured locally decreases accordingly. Furthermore, all parts and components for models produced in the country are not necessarily procured locally. There will be the move to focus on specific parts.

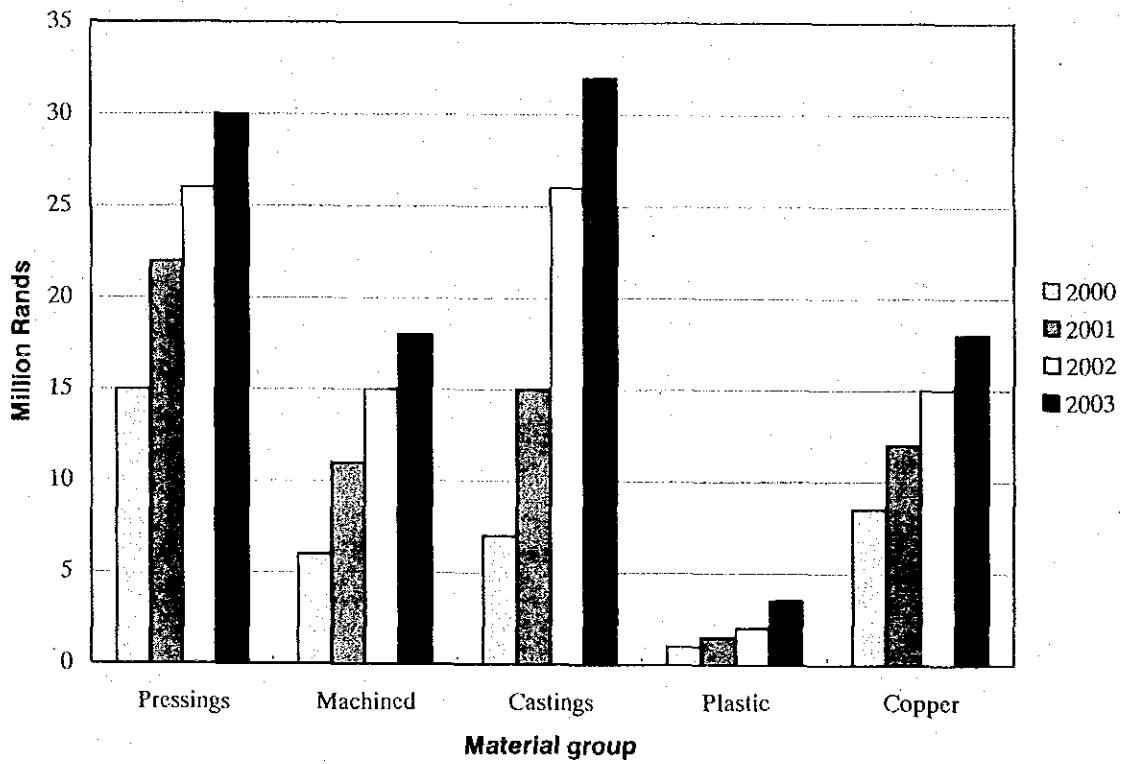
At the same time, assembled cars will be imported to meet the market needs and supplement local production. Also, some parts will be imported. Reciprocally, export drives will be generated for finished cars and parts that correspond to the above imports. In this context, no assembler insists on local production of parts and components for their own cars. And, to give a specific example, they are moving toward expanded production of catalytic converters for export, which capitalizes on the country's comparative advantage.

In this case, assemblers will opt to increase production of specific models and parts. While it is difficult to say whether the number of locally produced parts will increase or decrease as a consequence of focused production by assemblers, total production will grow. This is evidenced by the increase in production and export of automotive parts in the recent years. Also, the move will further intensify with future model changes.

Figure II-3-10 shows localization targets for automotive parts set by a first-tier supplier (by type). This more or less reflects the following views shared by automobile assemblers and first-tier suppliers.

- 1) At present, press parts have achieved the highest level of localization among other parts, but further localization is feasible. For large parts, specialized companies and automobile assemblers have large press lines that are being operated far below capacity. On the other hand, further localization of smaller parts will create new outsourcing opportunities.
- 2) Localization is expected to grow very rapidly in the area of casting. However, foundries that have high levels of technology are concentrated in Port Elizabeth and Gauteng. In KwaZulu-Natal Province, only manufacturers of smaller die casting products are found.
- 3) For plastic parts, it is difficult to find molding companies with adequate skills. As a result, the industry has been very slow in localization and continues to show difficulty in development of local suppliers. Nevertheless, automobile assemblers and large suppliers are moving to install or boost their own production capacities.

**Figure II-3-10 Targeted Local Content per Group in Automotive Component Parts**



Source: An automotive parts manufacturer

No assembler has announced a specific policy as to which parts it will focus on for local production. Nevertheless, assemblers are required to improve competitiveness for exportation of assembled cars under the MIDP, while competing with imported cars in the domestic market. Similarly, first-tier suppliers are required to improve international competitiveness, as assemblers are increasingly demanding it in connection with their purchases of domestic OEM parts. Particularly, European assemblers demand the development of parts in modules, and implementation of the JIT system, and if local suppliers fail to respond, they are ready to bring in European suppliers for the improvement of competitiveness. At the same time, REMs are required to make internationally competitive products for direct exports as well as exports through assemblers.

As viewed from the standpoint of expanding the local production of automotive parts, the following characteristics can be pointed out for the South African industries.

- 1) Given the small domestic market and a large number of models, suppliers are expected to improve flexible production capabilities: the ability to supply internationally competitive parts in small lots and in large varieties. For this purpose, many companies have been taking a "benchmarking" approach to assess their current ability in comparison to counterparts in industrialized countries. The results indicate that the South African industries are lagged behind in "lean manufacturing" benchmarks, including quality, cost, production time, and inventory level. They are basically defined as production management issues, which many companies do not understand, as discussed later.
- 2) Looking at the automotive parts industry as a whole, it possesses relatively high levels of production technology. Given the small local market, the larger operation, especially foundries, forging shops and press work shops, will not be viable. Besides, no quality problem related to castings and forgings has been pointed out by assemblers. Similarly, large press parts are made by assemblers or large, foreign suppliers and do not present any problem. On the other hand, smaller press parts have quality (precision) problems partly due to the lack of mold design that takes into account production efficiency and product quality, and partly due to the use of old equipment. Yet, the largest problem is found in the area of production management. Major problems related to production technology are seen in the plastics molding industry, where not only small companies but large ones as well do not understand basic production techniques.

Under these circumstances, automobile assemblers and first-tier suppliers are in the process of reappraising capabilities of suppliers in terms of quality, cost and delivery schedule and are strictly selecting them on the basis of reevaluation results. They specify quality requirements and standards to suppliers and assist them in efforts to meet the goal. Overall, it is increasingly recognized that bottom-up improvement of second- and lower tier suppliers, in addition to first-tier suppliers, will be essential in promoting sustainable improvement of production efficiency of the industry as a whole, including international competitiveness in terms of cost, quality and delivery schedule.

Nevertheless, there are a large number of suppliers that fail to make the requisite efforts and an assembler believes that more than 30% of suppliers that it deals with will lose the business in the near future. In fact, a survey by Dr. Justin Barnes of Natal University indicates that the highest quarter of automotive parts suppliers in KwaZulu-Natal enjoys increased orders, while the lowest quarter faces the decline in business and feels difficulty to stay in business, when the suppliers are classified into four groups in terms of their recent business trends.

### **3.5 Opportunities for Development of SMEs in Metalworking and Plastics Molding Subsectors in KwaZulu-Natal**

#### **3.5.1 Current state of SMEs in metalworking and plastics molding subsectors in KwaZulu-Natal**

As stated before, there are around 40 major automotive parts suppliers in KwaZulu-Natal Province. While the automobile and automotive parts industries are important elements of the machinery sector, their structures are skewed toward larger and medium enterprises.

In the metalworking industry, there are leading automotive parts suppliers (mostly classified as first tier suppliers). In addition, there are suppliers, mostly stamping shops, which deliver parts or components directly to automakers or first tier suppliers. Also, some companies make small components that are incorporated into automotive parts, although their share in total business is small. Nevertheless, most companies in the metalworking sector do not have any commercial relationship with automobiles and automotive parts. They can be categorized into the following according to the type of businesses they are engaged:

- 1) Enterprises engaged in volume production of industrial products and semi-finished products by machinery, including parts, tools, equipment and devices
- 2) Enterprises engaged in customized production of industrial products and semi-finished products by machinery, including parts, tools, equipment and devices, which are primarily delivered to local machinery manufacturers, plantations and public projects
- 3) Enterprises engaged in manufacture of steel structures and members by plating and welding operations to meet customer specifications, typically ironworks
- 4) Enterprises engaged in manufacture of aluminum products such as window frames and doors for small offices and home

Similarly, most SMEs in the plastics molding industry are seldom associated with production of automotive parts. Some companies make simply designed and small components, the percentage share of which is very small.

Nevertheless, the automotive industry plays a crucial role in the South African economy in terms of GDP share and export contribution. Also, as it purchases the bulk of raw materials and parts from local sources, say 60% of total, the industry creates significant impacts on other industries, including job creation. In fact, its economic effects extend to not only the supplier base, including parts and raw materials, but related service industries ranging from office supplies and furniture, to utilities, security and transportation. In particular, job creation leads to consumption and demand, which benefits society that is afflicted with the high unemployment rate.

As the automotive industry can bring economic benefits to the national economy and a wide range of sectors, it is important to assist SMEs so that they can enjoy such benefits fully. To this end, efforts should be made to encourage SMEs to launch on the local production of parts and raw materials. Opportunities for promotion of SMEs in linkage with the automotive industry and constraints are discussed below.

### **3.5.2 Opportunities for promotion of SMEs as competitive automotive parts suppliers, and major issues**

Automobile assemblers and first-tier suppliers are increasingly exposed to global competition and strive to improve and maintain competitiveness of the entire supply chain including their suppliers. In fact, they require suppliers to make improvements in the following four areas: 1) quality; 2) cost; 3) delivery schedule, and 4) production technology.

Quality requirements include continuous quality improvement activities, quick responses to customer claims, and implementation of quality control in the production process to prevent any defects from producing in each process. Cost requirements mean productivity improvement and continuous cost reduction activities. Key activities include efficiency improvement, inventory minimization and zero defect campaigns.

The improvement of delivery performance involves reduction of the lead-time, improvement of delivery schedule management and production management, and zero defect campaigns. In fact, quality, cost and delivery schedule are interrelated and interdependent factors. Finally, the upgrading of production technology requires procurement or modification of equipment and latest production know-how.

However, many local SMEs are not capable of meeting such requirements and will consequently go out of business in the short or medium run. Automobile assemblers are moving to encourage foreign suppliers to operate in the country in order to satisfy the quality, cost and delivery requirements. More precisely, they plan to use foreign suppliers to produce exportable parts and develop modular components (assemblies). At the same time, they selectively channel orders to a handful of suppliers that can make exportable parts. In fact, many first tier suppliers are capable of supplying products of higher quality than those made by second- and third-tier suppliers and have excess production capacities. Furthermore, they can make additional investment if required. Assemblers are expected to demand further investment by suppliers to introduce the latest technology, but most SMEs cannot afford to make such investment.

As for the plastics molding sector, most molded parts and components are supplied by a small number of foreign-affiliated or large local suppliers. SMEs' activities are limited to making simple and small parts, and delivering them to metal parts suppliers. At present, there is a large gap between foreign and large local plastics molding manufacturers and SMEs in terms of production technology and management policy. Furthermore, most foreign and large local suppliers have excess production capacities. Thus, there is little room for those smaller plastics molders to enter the automotive parts market.

In the case of metalworking subsector, leading manufacturers are specialized in specific fields or products which they excel at and tend to subcontract simple and small parts or auxiliary processing that are not suitable for internal operation. For this reason, SMEs in this subsector can survive as second- or third-tier suppliers. Nevertheless, manufacturers that do not have specific levels of production techniques and a pro-active

marketing policy will have to go out of business and SMEs will likely be reduced in number.

All in all, the number of companies participating in the automotive parts industry will decline, despite some entries being expected, especially by foreign companies. Thus, the opportunity for SMEs to enter the industry is very limited in the short and mid-term run.

On the other hand, so long as the MIDP is maintained and suppliers make continuous efforts to improve competitiveness, the industry has a good future prospect and will expand, while the number of suppliers will continue to decline.

In order to survive and grow in the industry, SMEs have to establish production and management systems that can help automobile assemblers or first tier suppliers to improve their international competitiveness.

(1) Issues related to management and technology

Generally, the manufacture of automotive parts requires three technology systems: 1) production management technology; 2) process technology; and 3) product technology (technology that is incorporated into a product). They are intertwined and integrated to form a comprehensive set of system technologies<sup>5</sup>. Individual technologies are generally distributed in balance among automobile manufacturers and suppliers, forming a highly organized, coherently structured, vertical production system. This integrated production system in the entire automotive industry can lead to high control standards for price, quality and delivery.

Production management technology used in the automotive industry embraces physical distribution of purchased materials and parts and its rationalization. The upgrading of production management technology, therefore, entails the upgrading of suppliers' production processes including their delivery system. The JIT system is a manifestation of the upgraded production management technology.

Major issues related to process technology, which must be addressed by suppliers, include implementation of flexible production in response to diversification of automobile demand. More precisely, it should be carried out by building a computer-controlled flexible production system, introduction of sophisticated machine tools and industrial robots that are networked and controlled by the computer system, and the upgrading of purpose-built, existing machinery and equipment.

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<sup>5</sup> T. Oshima, "Automotive Parts Industry in Japan" (Nihon-hyoron-sha: 1987)

Finally, product technology must address the issues related to environmental protection, safety, and user friendliness and is in the process of innovation by using electronics and new materials.

However, these technology issues are confined to first tier suppliers that need to have the integrated technology base and some of the second tier suppliers that possess sophisticated technology. Most SMEs serving the automotive parts industry in South Africa, especially in KwaZulu-Natal, are engaged in low valued added processing and are required to improve basic production management technology. While they do not understand much about basic production management, most SMEs have excess production capacities and tend to neglect production management. Meanwhile, automakers are required to promote further improvement of competitiveness and suppliers will accordingly be required to cut cost, time and work that is considered to be irrational from the streamlined production system. To compete in the open market, lean and mean production and management is a must for SMEs, if they are to form an integral part of the competitive automotive industry.

Observation at selected SMEs and their factories indicates that considerable time, cost and effort is wasted due to poor production management. If such time and cost is applied to more productive work, productivity will improve significantly and workers' morale will rise.

Similarly, process technology and its importance are little understood by SMEs, despite the fact that it is the foundation of sound production management. Most SMEs do not even have basic knowledge, such as the need for improvement of factory layout.

As for product technology, most SMEs are not in a position to upgrade it according to the market needs. A handful of medium-sized enterprises are capable of product development. Accordingly, automobile assemblers limit the scope of local procurement to products that can be made by local suppliers. In fact, manufacturing operations that are carried out in Durban do not require advanced technology, and therefore the current technology levels of suppliers appear to meet production requirements. Suppliers with advanced technology are located in Port Elizabeth. Given the local market size, it does not make any economic sense to develop the metalworking industry in Durban, which can compete with that in Port Elizabeth. On the other hand, SMEs in Durban should have flexible production capabilities that are demanded by the automobile and automotive parts industries, including mold making technology and capability that meet customer needs for quality and efficient production.



In conclusion, SMEs engaged in production of automotive parts in KwaZulu-Natal should urgently improve production management technology. In particular, they should acquire basic knowledge of process technology that constitutes the foundation of production management in order to raise awareness of its importance in the everyday production management process.

(2) Issues related to production management technology

From evaluation of metal press working, metalworking, and plastics molding companies from the viewpoint of the market needs for the automobile and automotive parts industries, various issues related to production management technology of SMEs in KwaZulu-Natal were identified, as summarized below.

**Quality**

Final inspection is strictly conducted and no defective product is being shipped. However, many companies do not assign staff specifically to quality control work and fail to record quality data (excepting automotive parts suppliers). Some companies collect quality data but they do not effectively use such data for quality improvement. Furthermore, few companies tackle quality problems continuously and understand various techniques to solve them.

1) Maintaining quality

Some automotive parts suppliers use QC flow sheets, but few companies plot collected data on control charts for day-to-day quality control purposes. No company practices quality control based on field data, which are usually limited to defect counts. It is urgent to disseminate quality control techniques using data through a formal education and training system.

2) Quality improvement activity

Some automotive parts suppliers have daily meetings on process problems and corrective measures, but they do not conduct quality improvement activities by setting specific goals. No company conducts quality improvement activity with participation by field workers and other employees. Clearly, it is important to teach systematic quality improvement techniques and activities, including QC circle and similar activities, problem solving techniques (key QC tools), and measures to prevent recurrence of quality problems.

### 3) Response to customer claims

Some automotive parts suppliers and plating companies have quality control sections and take corrective measures when customer complaints are received. However, they only record complaints and corrective measures, and fail to devise measures to prevent recurrence. Most SMEs have lower levels of awareness and concern about quality than their customers. It is desirable to establish a collaborative relationship with the customers' quality control departments and to launch company-wide activities led by the staff in charge of quality assurance.

### **Cost**

Many companies collect and record limited cost data, such as sales per product and working hours. No company monitors actual production cost data per product type and process. This explains why they do not conduct cost improvement or productivity improvement activities. They must first establish a mechanism to grasp production costs per product and process. Then, a cost budget is prepared and compared with actual costs. After that, a cost reduction target is set for each department to initiate formal activities.

#### 1) Productivity improvement

Most production lines are not designed in consideration of physical flow of goods or ease of movement of workers. No company conducts productivity improvement activity. There is no formal mechanism to quantify productivity improvement as actual cost saving.

#### 2) Inventory reduction

Most companies take inventory of raw materials monthly and inventories are generally at high levels. Inventory of intermediate goods is not well managed and generally large. On the other hand, finished products seem to be a problem because they are mostly made on a contract basis. It is imperative to establish a mechanism to assess inventory costs accurately.

### **Delivery**

At present, automotive parts suppliers deliver their products to customers once per day at most. However, automotive assemblers are likely to introduce the kanban system that requires more frequent delivery. In this case, the upgrading of production management technology is essential. On the other hand, raw materials are delivered in large lots, once per week at most. Together with large inventories of intermediate goods, a long

lead-time is a problem.

(3) Issues relating to production technology

Adequate production technology is applied to products that are currently made. In the case of an automobile, a large number of new production techniques are incorporated into each model change, and suppliers must make continuous efforts to adapt them. It is often the case that new production equipment is required to make a new product. While new production technology can be introduced through licensing or other arrangements, vigorous marketing activities are required to win more orders and expand the market in order to secure an adequate return on investment.

(4) Issues related to process technology

In many cases, improvement of production efficiency required by automobile assemblers cannot be accomplished without the improvement of process technology. For SMEs engaged in production of automotive parts in KwaZulu-Natal, there is need to improve the following points that are related to basic process technology:

- 1) Improvement of equipment layout
- 2) Improvement of relative relationships between man and machine (e.g., working position, safety, ease of work)
- 3) Improvement of work method to set a work piece to a machine and remove it
- 4) Separation of machine movement and the worker's moves
- 5) Improvement of physical flow of goods
- 6) Use of auxiliary work equipment

In particular, SMEs lack middle managers and engineers, and owners are expected to make every decision, making it difficult to address the issues related to process technology.

## 4 SMEs in South Africa and KwaZulu-Natal Province

### 4.1 Definitions of SMEs and Their Statistical Significance

#### 4.1.1 Definitions and characteristics

In the country, there is no unified definition of SMEs and various organizations have different definitions of SMEs according to the purpose of their service.

The National Strategy for the Development and Promotion of Small Business in South Africa ("National Strategy"), which sets forth a long-term direction of SME policy for the nation (see II-5 for detail), proposes the following definitions according to the policy objective required for each category<sup>1</sup>.

##### Survivalist enterprises

Survivalist enterprises are activities undertaken by people trying to generate income who are unable to find a paid job or get into an economic sector of their choice. Income generated from these activities usually falls far short of even a minimum income standard. Little capital is invested, and virtually no skills training in the particular field is sought. An extremely large number of people, particularly women, are involved in this type of activities.

##### Micro-enterprises

Micro-enterprises are very small businesses, often involving only the owner, some family member(s) and at the most one or two paid employees. They usually lack 'formality' in terms of business licenses, value-added tax (VAT) registration, formal business premises, operating permits and accounting procedures. Most of them have a limited capital base and only rudimentary technical or business skills among their operators. However, many micro-enterprises grow and develop into viable small businesses.

##### Small enterprises

Employment ranges between five and about 50. The enterprises will usually be owner-managed or directly controlled by the owner-community. They are likely to operate from business or industrial premises, be tax-registered and meet other formal registration requirements. Classification in terms of assets and turnover is difficult, given the wide differences in various business sectors.

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<sup>1</sup> It is difficult to obtain and analyze statistical data based on these definitions.

### Medium enterprises

Medium enterprises constitute a category difficult to demarcate vis-à-vis the “small” and “big” business categories. The employment of 200 and capital assets (excluding property) of about R5 million are often seen as the upper limit. It is still viewed as basically owner/manager-controlled. The National Strategy confines this type of enterprises, which the Strategy covers, to those which have various constraints and limitation, which are deemed to be difficult to solve with the ordinary market mechanism.

Definitions of SMEs used by KHULA are summarized as follows.

	<b>Employment</b>	<b>Annual sales</b>	<b>Total assets</b>
Micro	5 or less	R50,000 or less	R20,000 or less
Small	50 or less	R5,000,000 or less	R500,000 or less
Medium	150 or less	R20,000,000 or less	R5,000,000 or less

Most SMEs have started as sole proprietorships or owner-operated firms, and many are still managed by families or relatives. In the manufacturing sector, the boundary between medium-sized and large enterprises seems to be around 200 employees. Nevertheless, some small companies have a modern management organization whereas large companies may have strong characteristics of a family concern.

In addition, the issues related to SMEs in South Africa need to be addressed in due consideration of those people who have suffered economic disadvantages under the past racial discrimination policy, in addition to ordinary economic considerations (see 4.3 for details).

#### **4.1.2 Statistical view of SMEs**

##### **SME statistics**

There is no statistical system designed specifically to give information enabling one to grasp the situation of SMEs in South Africa.

The data used in the following analysis are cited from “State of Small Business in South Africa, Annual Review 2000,” (issued by Ntsika Enterprise Promotion Agency). The report was compiled using data from appropriate editions of the Industrial Census of Statistics South Africa report, and a study conducted for Ntsika by BEBP (Bureau for Economic and Policy Analysis). The report may be regarded as the sole data set to

indicate the statistical situation of SMEs in South Africa<sup>2</sup>. Nevertheless, the data include the formal sector only, and no data is available on the informal sector.

According to the Annual Review 2000<sup>3</sup>, there are approximately 1,629,000 entrepreneurs throughout the nation, of which 1,140,000 are in the informal sector, while remaining 489,000 are in the formal sector. The total economic population in South Africa is 10,370,000, of which 2,700,000 are in the informal sector and 7,670,000 are in the formal sector.

On the other hand, according to the National Strategy for Small Businesses (issued in 1995), it is estimated that there are 800,000 SMEs and they employ a quarter of 15,000,000 worker. It said that the figure excludes 3,500,000 who are engaged in the survivalist enterprise activities.

#### **Statistical overview**

In many countries, SMEs play the following social and economic roles and their promotion is justified from these viewpoints.

- 1) They are labor intensive and help reduce unemployment.
- 2) They can be established throughout the country and contribute to correction of regional and/or income disparities.
- 3) The technologies which SMEs use are widely used in industry and can be easily transferred to SMEs (unlike advanced technology which often is proprietary to large corporations), and thereby to promote industrial diversification.
- 4) They are creative, playing a supplementary role by covering fields that are not in the traditional domain of large corporations so as to create synergies in industrial.
- 5) They are flexible enough to engage in small-lot, customized production and can form the supplier base that supports growth of large manufacturers, thereby contributing to economic development in the country as a whole.

SMEs in South Africa make significant contributions in terms of job creation and business promotion. They account for 54.5% of total employment in the country and 97.5% of enterprises of all sizes, in comparison to their GDP share of 34.8%. (Large enterprises account for 45.5%, 2.5% and 65.2%, respectively.)

Nevertheless, there is a clear disparity in employment and entrepreneurship conditions

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<sup>2</sup> The data include those of percent share only, and no data is available on the actual figure.

<sup>3</sup> "Statistics South Africa 2000"

among population groups. Although no data showing the issue are available, that an employment gap exists is evident from the significant difference in unemployment rate between major population groups (Table II-4-1). Also, a very small number of black people who own or manage manufacturing establishments in KZN is one evidence of such a gap in entrepreneurship.

Similarly, SMEs have yet to exploit their potential to contribute to industrial diversification, although they operate in a variety of product and service areas which large corporations find unattractive. As a result, both industries and consumers excessively depend on imports in many areas. With regard to formation of the industrial base, the country has not developed SMEs that have high levels of technology and competitiveness in various industries – i.e., SMEs that are needed to serve as supporting industries. Thus, development of competitive SMEs is one of the most important issues for the country with regard to improvement of international industrial competitiveness.

#### **Contribution to GDP**

As discussed above, the contribution of SMEs to GDP is 34.8% on average. By sector, SMEs account for the highest share of 56.5% in the farming sector, 50.9% in the construction sector, and 33.7% in the manufacturing sector, slightly below the overall average (Table II-4-2). On the other hand, the mining and electricity sectors are monopolized by large enterprises, with their shares being 94.7% and 100%, respectively.

In the manufacturing sector, medium-sized enterprises hold the highest share of 21% out of 33.7%, while small enterprises and microenterprises represent 7.4% and 5.3% respectively.

#### **Contribution to employment**

SMEs account for 54.5% of employment in all industries (Table II-4-3). This is smaller than in other countries, but even this scale of employment contributes greatly to job creation. Particularly, in the commerce and agriculture sectors, SMEs hold share of 72.5% and 70.3% respectively. In the manufacturing sector, share totals 43.5%, of which medium-sized enterprises represent 24.6%, small enterprises 10.6%, and microenterprises 8.4%. Table II-4-4 shows the employment ratios by industry and by enterprise group.

Between 1980 and 2000, the population of South Africa grew at an average 2.2% per year. Meanwhile, employment in the formal sector increased by only 1.3%, indicating growth of unemployment and increased absorption by the informal sector during the period (Table II-4-5). In particular, employment by large enterprises grew an annual average 0.93% over the two decades. Thus, SMEs, and especially micro enterprises, made a greater contribution to job creation.

**Table II-4-1 Economic Participation by Population Group: 1999**

(Unit: 1,000 persons)

Population group	African	White	Colored	Asian	Total
Youth and elderly (younger than 15 and older than 65 years)	13,772	1,461	1,435	350	17,045
Not economically active	10,525	1,004	907	300	12,753
Workers	6,668	2,004	1,288	392	10,369
Employed in formal sector	4,425	1,839	1,040	346	7,664
Employed in informal sector	2,243	165	248	46	2,705
Unemployed	2,751	99	232	72	3,158
Unemployment rate (%)	29.2	4.7	15.2	15.6	23.3
Total	33,716	4,568	3,862	1,114	43,325

Source: Statistics South Africa 2000



**Table II-4-2 Percentage Contribution of SMEs to the GDP  
in the Industrial Sectors**

(Unit: %)

	Micro	Small	Medium	Large	Total
Agriculture	4.13	8.67	43.71	43.49	100.00
Mining	1.01	1.74	2.55	94.70	100.00
Manufacturing	5.27	7.37	21.02	66.34	100.00
Electricity	0.00	0.00	0.00	100.00	100.00
Construction	3.14	35.60	12.20	49.06	100.00
Trade	2.27	23.41	17.12	57.21	100.00
Transport	7.07	18.50	20.30	54.13	100.00
Business & other services	14.90	12.90	2.90	69.30	100.00
Average: all sectors	5.82	13.90	15.05	65.23	100.00

Source: NTSIKA 2000

**Table II-4-3 Percentage Contribution of SMEs to Employment  
in the Main Industrial Sectors**

(Unit: %)

	Micro	Small	Medium	Large	Total
Agriculture	4.17	13.81	52.31	29.71	100.00
Mining	0.92	2.51	2.59	93.97	100.00
Manufacturing	8.39	10.57	24.58	56.46	100.00
Electricity	0.00	0.00	0.00	100.00	100.00
Construction	2.93	37.28	13.45	46.34	100.00
Trade	35.77	23.73	13.00	27.49	100.00
Transport	11.38	23.50	20.84	44.27	100.00
Business services	25.14	19.18	5.20	50.48	100.00
Other services	52.68	18.22	8.23	20.86	100.00
Average: all sectors	17.38	16.34	20.76	45.52	100.00

Source: NTSIKA 2000

**Table II-4-4 Sectoral Share in Employment According to SME Classification**

(Unit: %)

	Micro	Small	Medium	Large
Agriculture	2.95	9.28	37.31	6.33
Mining	0.65	1.69	1.85	20.01
Manufacturing	5.93	7.10	17.53	12.02
Electricity	0.00	0.00	0.00	21.29
Construction	2.07	25.05	9.59	9.87
Trade	25.30	15.95	9.27	5.85
Transport	8.05	15.79	14.86	9.43
Business services	17.78	12.89	3.71	10.75
Other services	37.26	12.25	5.87	4.44
Total	100.00	100.00	100.00	100.00

Source: NTSIKA 2000

**Table II-4-5 Average Annual Growth in Employment per Sector  
According to Enterprise-size Class Over  
the Past 20 Years**

(Unit: %)

	Micro	Small	Medium	Large	Average
Agriculture	-3.42	-2.28	5.25	5.32	2.97
Mining	0.14	2.70	1.02	-1.04	-0.91
Manufacturing	3.83	2.35	1.05	0.47	0.99
Construction	1.47	-0.56	-0.78	-3.88	-2.38
Trade	4.28	1.65	0.56	6.00	3.40
Transport	-4.62	-1.19	-0.51	3.11	-0.19
Business services	4.46	11.24	22.97	5.70	6.75
Other services	12.91	19.97	-21.82	N/A	2.33
Average growth	3.42	1.22	0.96	0.93	1.33

Source: NTSIKA 2000

In the manufacturing sector, employment grew at an average 0.99% during the period. Employment growth mainly came from small enterprises and microenterprises. While large enterprises grew only 0.47% and medium-sized enterprises 1.05%, small enterprises and microenterprises increased employment by 2.35% and 3.83% respectively.

#### **Contribution to business startup**

Large enterprises account for only 2.5% in the number of enterprises, compared to microenterprises 67.4%, small enterprises 19.4%, and medium-sized enterprises 10.7%. In the manufacturing sector, large and medium-sized enterprises have higher shares (5.7% and 14.1% respectively) and microenterprises show a lower share of 61.3% (Table II-4-6). Table II-4-7 shows the ratios of number of enterprises by industry and by enterprise group.

As there are no statistical data showing the number of SMEs, annual corporate registration data on two types of companies were compared as surrogates, i.e., closed corporations (CCs) representing small enterprises and private companies (Pty Ltd) large and medium-sized enterprises. In the manufacturing sector, annual registration of the former was three times that of the latter up to 1994. After 1995, registration of CCs increased and it reached five times in 1999 and 2000. This indicates that small enterprises (CCs) can easily be founded.

Geographically, however, startups of SMEs are not evenly distributed and have still to make significant contribution to reduction of regional income disparities. Based on registration of CCs, 550,000 CCs were registered between 1990 and 2000. Of the total, approximately 300,000 CCs were registered in Gauteng, followed by 80,000 in Western Cape and 70,000 in KZN. Thus, the three states account for 82% of total registration during the period. While these figures indicate that more SMEs are established in highly populated states, other data suggest that the three states show higher percentages of business startup per population (Gauteng 4.9%, Western Cape 4.3%, KZN 4.2%, compared to Mpumalanga 4.1% and other states 3.1% or less).

#### **Size and wage levels of SMEs**

The average number of persons employed by large enterprises is 594.5, compared to microenterprises 7.8, small enterprises 29.1, and medium-sized enterprises 96.6 (Table II-4-8). Table II-4-9 shows the contribution ratios of respective enterprise groups to wages and salaries in each industry, while Table II-4-10 shows the contribution ratios of respective industries to wages and salaries in each enterprise group.

**Table II-4-6 Percentage Contribution of SMEs to the  
Number of Establishment in the Main  
Industrial Sectors**

(Unit: %)

	Micro	Small	Medium	Large	Total
Agriculture	24.86	28.35	40.96	5.82	100.00
Mining	57.89	18.98	7.24	15.90	100.00
Manufacturing	61.27	18.92	14.11	5.70	100.00
Electricity	0.00	0.00	0.00	100.00	100.00
Construction	24.50	67.05	4.84	3.61	100.00
Trade	82.57	14.59	1.75	1.09	100.00
Transport	64.66	28.39	5.34	1.61	100.00
Business services	84.99	13.03	0.99	0.99	100.00
Other services	89.26	8.95	1.02	0.77	100.00
Average: all sectors	67.41	19.35	10.74	2.50	100.00

Source: NTSIKA 2000

**Table II-4-7 Sectoral Share in the Number of Establishments  
According the SME Classification**

(Unit: %)

	Micro	Small	Medium	Large
Agriculture	5.07	14.30	53.72	4.30
Mining	11.81	9.57	9.49	11.73
Manufacturing	12.50	9.54	18.50	4.21
Electricity	0.00	0.00	0.00	73.81
Construction	5.00	33.82	6.34	2.67
Trade	16.85	7.36	2.30	0.80
Transport	13.20	14.32	7.01	1.19
Business services	17.34	6.57	1.30	0.73
Other services	18.22	4.51	1.34	0.57
Total	100.00	100.00	100.00	100.00

Source: NTSIKA 2000

**Table II-4-8 Average Employment per Establishment per Industrial Sector per Enterprise-size Class**

(Unit: persons)

	Micro	Small	Medium	Large	Average
Agriculture	2.6	7.4	19.5	77.9	15.3
Mining	10.1	84.8	229.5	3,785.9	640.4
Manufacturing	7.8	29.1	96.6	594.5	55.9
Electricity	0.0	0.0	0.0	37,311.0	37,311.0
Construction	2.9	13.4	67.1	309.4	24.1
Trade	4.5	16.9	77.2	263.3	10.4
Transport	4.1	19.4	91.4	645.4	2.4
Business services	4.2	20.8	74.0	718.3	14.1
Other services	5.3	18.3	72.5	245.0	9.0
All sectors	4.7	15.3	35.1	330.7	18.2

Source: NTSIKA 2000



**Table II-4-9 Percentage Contribution of SMEs to Salaries  
and Wages in the Main Industrial Sectors**

(Unit: %)

	Micro	Small	Medium	Large	Total
Agriculture	2.95	6.84	38.81	51.40	100.00
Mining	0.69	1.48	1.97	95.86	100.00
Manufacturing	6.84	8.51	21.58	63.07	100.00
Electricity	0.00	0.00	0.00	100.00	100.00
Construction	2.30	33.58	12.88	51.24	100.00
Trade	16.80	36.10	29.90	17.20	100.00
Transport	5.87	18.91	22.25	52.97	100.00
Business services	14.90	13.10	2.90	69.10	100.00
Other services	14.90	13.10	2.90	69.10	100.00
Average: all sectors	10.07	16.94	15.69	57.30	100.00

Source: NTSIKA 2000

**Table II-4-10 Sectoral Share of Salaries and Wages  
According to Enterprise-size Class**

(Unit: %)

	Micro	Small	Medium	Large
Agriculture	4.52	5.20	29.14	9.02
Mining	1.06	1.12	1.48	16.82
Manufacturing	10.48	6.47	16.20	11.07
Electricity	0.00	0.00	0.00	17.55
Construction	3.53	25.52	9.67	8.99
Trade	25.75	27.43	22.45	3.02
Transport	9.00	14.37	16.71	9.29
Business services	22.83	9.95	2.18	12.12
Other services	22.83	9.95	2.18	12.12
Total	100.00	100.00	100.00	100.00

Source: NTSIKA 2000

The average wage index per employee (when the average wage in the manufacturing sector = 100) is 121 for large enterprises, 80.3 for medium-sized enterprises, 67.4 for small enterprises, and 57.4 for microenterprises. Thus, there is a marked difference between large enterprises and smaller enterprises (Table II-4-11). Table II-4-12 shows growth rates of wages and salaries by enterprise group in the past 20 years.

## **4.2 SMEs in KwaZulu-Natal Province**

The present study deals with SMEs as part of supporting industries for the machinery sector and thus does not fully cover SMEs in general (the current status and development issues on these SMEs are analyzed in II-3.3 and II-3.5). Given the limited scope, the study reviewed and analyzed various conditions surrounding SMEs in the context of the study objective.

SMEs operating in KZN can be classified into the following types that are thought to well reflect the historical background.

### **(1) SMEs owned and operated by members of the white population**

#### **1) SMEs on the rise**

There are some enterprises owned by whites who learned skills at other companies and then started their own businesses. Some of them acquired management and technical expertise or found customers before startup and have been successfully introducing new technology through a technical assistance or licensing agreement with foreign partners or have been exploring new markets. Some have even acquired proprietary development capabilities and niche markets. These enterprises include automotive parts suppliers that have established good reputations among customers and receive a continuous stream of orders. They are mainly small- or medium-sized enterprises.

#### **2) SMEs in stagnation**

On the other hand, there are many white-owned enterprises, which do not have sophisticated management or technology expertise, continue to use second-hand machinery and equipment, and are unable to make unique products or establish business strategy to differentiate themselves from others. They suffer low operating rates as the domestic market expands slowly, and most of them wait for customers to place orders. They do not have a modern organization consisting of functional units and owners or managers are responsible for every aspect of operation. They lack

**Table II-4-11 Relative Compensation per Employee per Firm  
per Enterprise-size Class in Terms of the  
Sectoral Average**

(Unit: %)

	Micro	Small	Medium	Large	Average
Agriculture	9.83	32.38	75.36	187.45	100.00
Mining	104.70	44.14	73.25	102.19	100.00
Manufacturing	57.42	67.44	80.28	121.01	100.00
Electricity	0.00	0.00	0.00	100.00	100.00
Construction	101.26	101.65	74.00	106.13	100.00
Trade	18.45	91.01	138.43	195.67	100.00
Transport	70.80	76.11	88.30	125.70	100.00
Business services	59.27	67.27	55.76	137.28	100.00
Other services	28.28	70.79	35.23	332.17	100.00
All sectors	37.88	68.26	68.75	149.36	100.00

Source: NTSIKA 2000

**Table II-4-12 Average Annual Nominal Growth in Salaries and Wages per Sector According to Enterprise-size Class Over the Past 20 Years**

(Unit: %)

	Micro	Small	Medium	Large	Sectoral average
Agriculture	1.28	-0.58	9.39	7.73	6.89
Mining	3.78	2.66	2.95	2.05	2.51
Manufacturing	4.42	2.97	2.48	2.50	4.26
Construction	0.64	-0.56	-1.00	-2.69	-2.39
Trade	9.07	4.45	5.43	3.97	6.99
Transport	-1.40	-0.49	1.23	3.65	2.24
Average	6.14	2.94	3.60	2.35	3.90

Source: NTSIKA 2000

willingness to try something new. They believe that automotive parts (first-tier and second-tier) are not their business domain and say that they target low-cost, low-quality products.

### 3) Creative small and micro businesses

The third type are small enterprises and one-man enterprises owned by whites, which develop unique products including design services that target niche markets, such as furniture, interior decorations, and household consumer goods. In the machinery sector, for example, they design and assemble machines that are suitable for production systems in South Africa. And some companies develop fittings and other tools used in machinery and construction industries. They have secured customers in these markets, although sales are not very large due to the limitation in the domestic market size.

## (2) SMEs owned and operated by PDIs

Enterprises established and operated by PDIs are very limited in number, and mostly are in construction, building maintenance, gardening, laundering, catering, security, car remodeling, and furniture businesses. Among them, black-owned enterprises are further limited.

### 1) SMEs owned and operated by Asian population

The resident Asian population was apparently deprived of business opportunity up to 1994, like blacks, but they managed to operate their own business by using whites as owners. Then, after 1994, they established an increasing number of enterprises because they had a high educational background and were highly motivated to operate their own business. While there is no manufacturer making automotive parts, some manufacturers in this category have successfully won orders by offering unique production capabilities such as the electroplating of large parts. These enterprises generally benefit from government procurement.

### 2) SMEs owned and operated by black population

There are several black-owned manufacturers that are classified in microenterprises and have the minimum required set of equipment. They sell products to a limited number of customers and can only receive prices after actual sales, so that their cash flow is strained. At the same time, they lack basic business skills and some do not keep accounting records. Some rely on orders from charitable organizations and government, and they do not develop new sales routes.

However, it is also a fact that there are a limited number of successful black-owned enterprises that have established themselves in the manufacturing sector. One example is an automotive parts supplier that has received a good rating from an assembler. The supplier has emerged from CSIR's incubation center and the manager is customer oriented.

### **4.3 SMEs by the Previously Disadvantaged Individuals (PDI)**

#### **4.3.1 Restriction on business undertakings of the PDI enforced in the past**

During the apartheid era, the government followed a coordinated policy to restrict the development of black-owned businesses. Blacks were prohibited from conducting any business activities in the urban areas populated by whites. Even in the black townships and rural communities, there were many restrictions on business operation by the black people. They were required to obtain the business licenses, but these were issued only to small shops, barbershops, butcheries, shoe repairs, and liquor-free food vendors, etc. It was also government policy that blacks should remain a source of cheap labor for white-owned business, both large and small<sup>4</sup>.

In addition to sector-specific differences of constraints, the legacy of apartheid constitutes an important factor in the inability of black owned or controlled small enterprises to face business development constraints. For decades, if not centuries, the majority of South Africans were deprived of viable business opportunities in the following ways:

- (1) Bantu Education restricted opportunities for the acquisition of technical and professional skills by black people;
- (2) There was total absence of entrepreneurial education or sensitizing for young people in a way that could encourage them to enter business and acquire the culture of entrepreneurship;
- (3) Apartheid confined the majority of the African people to homeland areas which were not only the poorest in terms of living standards and business opportunities, but also lacked a dynamic business environment;

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<sup>4</sup> The Indian ethnics were similarly restricted in the business undertakings. However, the control on the illegal business undertakings were not so tight compared to that of black people. In addition, Indians were afforded better educational and employment opportunities than blacks.

- (4) Even outside the homelands the system of apartheid made it impossible for black would-be-entrepreneurs to participate in business apprenticeships and partnerships with more established (non-black-owned/controlled) enterprises;
- (5) Racially segregated residential areas, enforced through the Group Areas Act, not only uprooted millions from their places of residence and business, but also led to large capital losses and virtually destroyed the fabric of black small enterprises;
- (6) Segregation increased the distance between black residential and working areas, thereby increasing the cost and risk of conducting business;
- (7) The drastic curtailment of property ownership rights of blacks made it impossible for them to acquire assets that could serve as collateral for loan financing; it also excluded blacks from the long-run process of capital accrual and growth through rising property values and share prices;
- (8) Apartheid left no real space for the business involvement of black women; marriage laws reduced women to unions with no contractual capacity at all; even though marriage laws have changed, customary law remains intact and there are cultural, behavioral and attitudinal constraints which affect women's participation in business, particularly in rural areas.

All the above restrictions and constraints were lifted with emergence of the new government as a result of the general election in 1994. The new government has embarked on review and reform of the various existing service systems. However, when taking into account the above facts, small business-support policies will for a considerable time have to focus on the particular needs of black enterprises and ways to overcome the remaining consequences of that legacy.

#### **4.3.2 Current state of selected PDI enterprises in KZN**

Due to the discriminatory treatment in the past, the unemployment rate in KZN remains much higher in the PDI group than others. For this reason, support for startup and sustainable growth of PDI enterprises is very urgent and important from the standpoint of promoting national social and economic development. The situation has long been recognized and a number of programs have been implemented<sup>5</sup>, but it is often criticized that visible results have not been produced<sup>6</sup>. Within the PDI group, black-owned enterprises have not increased as expected and SMEs owned by black entrepreneurs are

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<sup>5</sup> Most SME support programs target PDI enterprises.

<sup>6</sup> While there are no specific data showing the results of PDI programs, the vice minister of DTI admitted in his report at the parliament in November 2001 that no visible result was obtained.



limited to a few types of businesses. Especially, in the manufacturing sector, few companies are operated by black people.

During the study, the study team visited a limited number of PDI-owned manufacturers in KZN for interviews. They were mostly metalworking and plastics processing shops and did not include black-owned enterprises. Although the study team searched for black-owned PDI enterprises, only three manufacturers (detergent, leather shoes, and plastic covers for car seats and reserve tires) were found. It was therefore confirmed that there were a very few black-owned enterprises in the manufacturing sector.

Among the three manufacturers, those making detergent and shoes appear to be at the most primitive level. Both manufacturers hire one or two part-time workers and use hand tools. Their operations do not require much techniques, except for some skills in the shoe making process. Their working capital available for purchase of raw materials is limited. When they sell their products on a consignment basis, they cannot generate a flow of cash enabling them to purchase raw materials. They sell products mostly to charitable organizations and government, while consigning some to retailers or selling some at the storefront.

On the other hand, a manufacturer of plastic covers for car seats and reserve tires is reportedly one of the most successful black-owned enterprises and supplies products directly to automakers. Notably, the manufacturer purchased a factory that the study team visited when it was offered for sale. It bought the factory with its equipment and took over the existing workers, and inherited customers. Many customers highly value the company for good product quality and compliance with delivery schedule, and are expected to provide a firm foundation for growth.

PDI enterprises in KZN include those operated by India-origin South Africans. These enterprises are seen in a variety of industries. Most of them avoid markets where sophisticated production techniques are required or competition with foreign companies is required, and they mainly look for niche markets. In the electroplating business, for instance, there is one manufacturer who has a large plating tank enabling it to receive orders that cannot be handled by others.

In addition, there are several projects supported by NGOs and other organizations. In any case, a key success factor for PDI enterprises is to find customers on their own. As pointed out earlier, most of them are busy making products and do not understand what

customers want. As a result, they primarily serve government and charitable organizations as well as private enterprises, which purchase products of PDI enterprises as part of government policy or social contribution.

#### **4.3.3 Characteristics of PDI enterprise owners and problems facing them**

As pointed out above, while some PDI enterprises are achieving success and are recognized as excellent companies, most of them, especially black-owned enterprises, have a number of problems due to the lack of basic business skills and experience, which is originated in the past unfavorable conditions.

Generally, most PDI enterprises are willing to do business but have little idea about what they can or should actually do. They believe that they can anything. They want to do something and hope that, if a customer tells them what to do, they can. In reality, however, potential customers do not likely find any product that they can purchase from most PDI enterprises. The problem is, PDI enterprises do not understand what customers want or need. They do not even know who can be their customers and which products are demanded in terms of quality, design and other aspects.

This is a matter of business planning. PDI enterprises simply do not know how to plan their business. This is why many support projects emphasize business planning techniques. However, it is difficult to teach a business planning technique in classrooms. It can usually be learned through hands-on experience in actually doing business. Generally, many people learn it as they work for companies. For PDIs whose employment opportunity is limited, a different approach should be taken such as field guidance by an expert during business startup to assist PDI enterprise owners to get practical experience. Use of a business cooperative seems to be an effective method.

Another major problem for PDI enterprises is financial access. Most PDI enterprises start with a very small amount of operating funds. Few enterprise borrow funds from the public loan program for SMEs, and many rely on friends and relatives. Because of limited funds, they cannot buy raw materials until their products are sold. Business expansion is made even more difficult under such circumstances.

They cannot use currently available loan programs in many cases because they cannot submit an acceptable business plan. Also, financial institutions often demand very strict conditions to secure recovery of loans. In this connection, a public loan and credit system should be established in consideration of risk factors related to SMEs and evaluation of economic effects should be taken into account in examining SME loans.