

**Federal Mogul Valves, the Motor Industry Development Program and
Component Manufacture in South Africa.**

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by

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CONFIDENTIALITY REQUEST

The contents of this dissertation are of a strategic nature and are thus considered confidential. It would be appreciated if this were taken into consideration and that the dissertation be withheld from free circulation for a period of 10 years.

Thank you

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ABSTRACT

Federal Mogul Valves manufacture automotive components for customers in both the domestic and export markets. For the components that are exported, they receive a government funded export subsidy. This subsidy is progressively being reduced each year and will, at this point in time, be discontinued in 2007. While Federal Mogul Valves' ability to export these components is not totally dependent on this export subsidy, the subsidy is certainly contributing to the profits that they are achieving. If they simply continue with their present strategy they will experience reduced margins as the export subsidy is reduced and eventually removed completely. If however they alter their strategic approach to the business to take into consideration the changes that they are faced with, they can introduce changes that will compensate for the reduction in profits that they will experience when the export subsidy is removed.

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CHAPTER ONE

Federal Mogul, Export Incentives and Component Manufacture in South Africa

1.1 INTRODUCTION

The purpose of this dissertation is to study and analyse the business conditions and commercial environment in which Federal Mogul Valves operates in South Africa. On the surface it may appear a simple, uncomplicated situation whereby automotive components are manufactured in South Africa and exported to markets overseas. However it is somewhat more complicated than this. There are various factors that come into play, some internally with the control and influence of Federal Mogul. And some externally, beyond the direct influence or control of Federal Mogul, but equally important as their effect plays an important role in Federal Mogul's present business cycle and future business potential.

1.2 FEDERAL MOGUL AND THE AUTOMOTIVE INDUSTRY

Federal Mogul Corporation is a Multinational corporation (MNC), headquartered in Southfield, Detroit, Michigan U.S.A. and listed on the New York Stock Exchange (NYSE). The company has been in operation for 100 years and ever since its establishment has been involved in the automotive industry. Federal Mogul Corporation currently enjoys annual sales of over US\$ 7 billion and employs some 56 000 people around the world (Rodengen, 1998). Its current core business area is considered to be the supply of automotive parts and components to the automotive

industry world-wide. These parts and components are sourced from manufacturing facilities around the globe that include wholly owned subsidiaries, joint ventures and licensees.

1.2.1 SUB GROUPS WITHIN THE AUTOMOTIVE INDUSTRY

Within the automotive industry there are three distinct sub groups or categories. From the perspective of a component manufacturer such as Federal Mogul, these divisions could be viewed as segmentation within the market. Each segment has it's own specific requirements as well as it's own customer base to serve.

1.2.1.1 Original Equipment Manufacture (OEM).

These are the assemblers and manufacturers of the various passenger and commercial vehicles available to the consumer. OEM's would typically purchase components from manufacturers and utilise these components for and in the assembly of new vehicles manufactured by them. Typical examples of OEM's are manufacturers such as Toyota, Volkswagen and Ford.

1.2.1.2 Original Equipment Spares (OES).

Vehicle manufacturers such as Toyota and Volkswagen are obliged to offer spare parts and accessories to the customers that have purchased their vehicles. These automotive parts and accessories, which have a sales outlet through the OEM's, are

known as Original Equipment Spares. The parts are branded with the same brand as the motor manufacturer i.e. Toyota or Volkswagen.

1.2.1.3 The Independent Aftermarket

This is also made up of automotive parts and accessories sales, but these sales are achieved through independent retailers and repair shops rather than through the OEM or OES supply chain. Within this market there exists reputable brands that are known and respected within the automotive industry, however there are also “brand-less” products that are of questionable quality and origin.

1.2.2 SUB GROUPS WITHIN FEDERAL MOGUL

Within the Federal Mogul Organisation there are 2 distinct divisions. These divisions are essentially constituted on the grounds of the function that the operations perform, and at the same time form two links in the typical supply chain.

1.2.2.1 The Manufacturing Division

The Manufacturing Division is, as the name describes, responsible for the physical manufacture of the various products and has two principle customers. The first is the OEMs for use in the assembly of new vehicles, and the second is Federal Mogul’s own Aftermarket Division described in 1.2.2.2 below.

1.2.2.2 The Aftermarket Division

The Aftermarket Division of Federal Mogul is essentially a logistics operation or supply chain extension of the Manufacturing Division. It is responsible for the sourcing, stock holding and distribution of the manufactured goods to the independent aftermarket. OES parts are also typically supplied from the Federal Mogul Aftermarket Division.

1.2.3 FEDERAL MOGUL SOUTH AFRICA

Federal Mogul South Africa is a wholly owned subsidiary of Federal Mogul Corporation. It consists of a number of manufacturing sites throughout South Africa manufacturing spark plugs and windscreen wiper blades and linkage mechanisms, engine parts and gaskets as well as brake products. An Aftermarket division is also present in South Africa, which takes care of stock holding and sales and distribution to the independent aftermarket industry.

1.3 BACKGROUND TO THE PROBLEM STATEMENT

The export of automotive components from South Africa is currently subsidised by the South African government. This export subsidy is more commonly known as the Motor Industry Development Program (MIDP) and was launched in September 1995 to bolster the competitiveness of the industry and hence promote growth through integration into the global automotive industry. Part of the MIDP permits the sale of incentives by the OEMs to component manufactures like Federal Mogul who are involved in the export of automotive components from South Africa. The OEMs, in

turn charge the component manufactures a premium for this service. This premium is negotiated between the OEM and the component manufacturer. Like any export subsidy, this allows for more competitive pricing on components destined for export. The incentive has not only encouraged South African component manufacturers to develop their export markets, but has also allowed manufacturers to enter the export market, who without the export subsidy, would not be able to do so profitably. However, the incentive scheme is set to be discontinued in 2007, with a staged reduction in the subsidy between now and then.

1.4 PROBLEM STATEMENT

The purpose of this dissertation shall be to study the business environment within which automotive components are manufactured by Federal Mogul Valves, a manufacturing unit of Federal Mogul South Africa. Once manufactured, a portion of these automotive components is sold to Federal Mogul Aftermarket operations in various countries around the world. The export of these automotive components renders them eligible for export incentives from the South African government. These incentives are only applicable to exports and thus cannot be claimed against components sold to the local Federal Mogul Aftermarket operation, or to OEM's for use in vehicles sold in South Africa. Consequently this dissertation will not consider the supply of components to the local Federal Mogul Aftermarket operation, nor will it consider the supply of components for the OEM sector of the industry. It will however attempt to determine the actual benefit that Federal Mogul Valves presently achieves from the MIDP, and the consequences and effects that the reduction in the

export subsidy of the MIDP will have on Federal Mogul Valves and their present ability to export automotive components from South Africa.

1.5 BACKGROUND TO THE MIDP

“We, the South African exporters, are not going to succeed as world class competitors if we simply price by undercutting our global counterparts, using marginal methods based on favourable exchange rates and government subsidies. The only way we will succeed is by performing activities better than others. And more importantly, performing them cost-efficiently” (Blumberg, 1993). Although this statement is some 7 years old, and interesting enough was written 2 years prior to the introduction of the MIDP in 1995; it’s validity and underlying message still hold true in the current automotive components environment. It goes a long way in summarising the predicament that Federal Mogul South Africa, as an exporter of automotive components, is faced with.

1.5.1 EXPORT INCENTIVES: REAL BENEFITS OR REAL COST?

While the MIDP mechanism may have some features that are unique to it’s South African origins; it is clearly a Government based and funded subsidy. Hill (2000) describes a subsidy as a government payment to a domestic producer and that the effect of these subsidies is to lower costs for domestic producers. Hill (2000) goes on to describe how these subsidies help domestic producers in 2 ways. Firstly the subsidies help them compete against low-cost foreign imports and secondly they help the domestic producers gain export markets. While feelings on the use of subsidies

appear mixed, their results appear to be more clear-cut. It is clearly the domestic producers who are the beneficiaries of any gains that may accrue from these subsidies. These gains are typically measured as an increase in international competitiveness through reduced costs, as a result of those subsidies (Hill, 2000). The nature and magnitude of these gains can vary dependent on the size of the domestic producer. The domestic producer could vary from a small manufacturing concern employing less than 20 people through a global multinational to a sector of an industry. Dependent on the size of this domestic producer, the gains can have several knock-on effects in the domestic economy. These include increased employment, foreign exchange flows and tax revenues. Unfortunately subsidies need to be paid for by someone, and this is possibly the single biggest reason for their criticism. Governments typically pay for subsidies by taxing individuals. Therefore, whether subsidies generate national benefits that exceed their national costs is debatable. In practice, many subsidies are not that successful at increasing the international competitiveness of domestic producers. They tend to protect the inefficient, rather than promoting efficiency (Hill, 2000). It is for these very reasons that subsidies and their real benefits are a much-debated topic.

1.5.2 A SOUTH AFRICAN PERSPECTIVE: SUCCESS OR FAILURE?

The South African automotive industry has not only accepted the challenges posed by global integration but, in a relatively short period of time, succeeded in many of the objectives of the MIDP. In this regard, the significant growth in exports and foreign investments, the declining trade deficit, productivity improvements and price increases below the consumer price index, speak for itself. Although relatively small

in world terms, a number of first world production facilities indicated that they can compete with the best in the world and can add substantial value to their overseas parent companies and their global strategies (Current Developments in the Automotive Industry, 2000).

The Motor Industry Development Program (MIDP) has now been in operation for five years and has led to rapid structural change in the automotive industry. The program is very different from previous strategies that were aimed at developing local industry by imposing local content requirements and placing high tariffs on imports. Although this policy was effective in leading to the establishment of a significant assembly industry supported by a diversified component sector, most producers were not internationally competitive and most domestically assembled vehicles were sold at a premium compared to world prices. The protected environment led to a proliferation of vehicle models being produced and the resulting low volumes per model have been a significant cost-raising factor. Exports were also minimal.

Phase VI of the local content programme, the forerunner of the MIDP, which measured local content by value, enabled vehicle manufacturers to include exports as part of their local content. This encouraged a rapid expansion of exports, especially of components, and placed increasing competitive pressure on the component industry. The MIDP is the next stage in this process and involved a gradual reduction in assistance up to the year 2007. It deviated from the previous local content phases as no local content requirements are set. The policy program, introduced in September 1995, was aimed at the development of an internationally more competitive and growing automotive industry which will be able to-

- provide high quality and affordable vehicles and components to the domestic and international market;
- provide sustainable employment through increased production;
- make a greater contribution to the economic growth of the country by increasing production and achieving an improved sectoral trade balance.

These national objectives are to be achieved by-

- encouraging a phased intergration into the global automotive industry;
- increasing the volume and scale of production by the expansion of exports and gradual rationalisation of models produced domestically;
- encouraging the modernisation and upgrading of the automotive industry in order to promote higher productivity and facilitate the global integration process.

The major policy instruments to achieve this are-

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

The objectives already achieved under the program include-

- a surge in exports of CBU's and automotive components;
- increased investment by OEM's and their suppliers;

- the creation of a platform for sustainable job growth in future;
- an improved trade balance
- improved affordability as a result of vehicle prices being based on increases below inflation levels;
- MIDC's acceptance of the challenges.

The major challenges ahead include-

- production rationalisation;
- a further diversification of automotive component exports base;
- continued CBU and automotive component export growth;
- growth industry profitability;
- productivity gains in increased volume production;
- technology transfer via joint ventures and FDI. (Current Developments in the Automotive Industry, 2000)

1.5.3 OTHER AREAS OF BENEFIT/NON TARIFF BARRIERS

While the aforementioned issues of globalisation and increased exports for component manufacturers suggest predominantly economic benefits such as increased turnover and profitability, there are also other aspects of the industry that set to benefit. While these economic benefits appear to be more directly related to globalisation and increased exports, there are aspects to the business that are more indirectly related. These benefits almost occur as a consequence of globalisation and often result in improvements within the organisation of the following:

- Quality Standards
- Environmental Standards
- Health, Safety and general working conditions
- Manufacturing Technology

Santivimolnat (2001) suggests that while existing tariff barriers are gradually removed, other non-tariff barriers are emerging. These non-tariff barriers may be the specific requirements of ISO or QS certificates for the manufactured goods, they may be regulations on rules of origin for exported goods, or they may be regulations regarding other safety or environmental standards. Whichever format these non-tariff barriers exist in, their presence is becoming more and more apparent, and they are proving to be barriers to entry that any budding exporter needs to be both aware of and compliant of if he is hoping to export to that particular country. The emergence of these non-tariff barriers is forcing component manufacturers throughout the industry to raise their standards to a point where they comply, or face reductions in their current levels of exports. The customers importing these components are rapidly being enlightened to the benefits that are obtained by sourcing components from manufacturers that are able to comply with these non-tariff barriers.

1.5.3.1 Quality Standards

Quality standards within the automotive industry are based on the International Standards Organisation's (ISO) registration scheme. Certification to the ISO 9000 series involves assessment of the company's quality standards and procedures by a certified third party auditing body. Should the company meet the auditing body's

requirements, then they are recommended for certification. ISO 9000 standards measure management quality, as opposed to product standard or service quality. By design they are very generic, and avoid technological and procedural specificity. They stress the areas where firms need quality standards, where the organisations themselves remain responsible for providing the standards. By doing so, they induce companies to develop formal internal processes for continuous quality improvement (Devos, Guerrero-Cusumano and Selen, 1996).

The ISO 9000 series consists of 5 documents. They are numbered as follows:

- ISO 9000
- ISO 9001
- ISO 9002
- ISO 9003
- ISO 9004

The 2 documents most relevant to industrial processes such as the automotive component manufacturing industry are :

- ISO 9001- Quality systems model for quality assurance in design/development production, installation and servicing.
- ISO 9002 – Quality systems model for quality assurance in production, installation and servicing.

While both of these standards are commonly used for both automotive assembly operations and component manufacturers, the demands of the automotive industry are such that they have been customised slightly to allow specific reference to the

automotive industry. The 2 customised variations that are commonly used in the automotive industry are:

- QS 9000
- VDA 6.1

When buying critical parts, purchasers more and more look for assurances that the requested products respond to high quality standards. Although ISO 9000 standards do not assure quality, they at least guarantee that the suppliers processes are definable, repeatable and predictable. This means that the quality level reached by the supplier is replicated consistently in the production, overtime and across different divisions (Devos, Guerrero-Cusumano and Selen, 1996).

If South African companies plan to export their locally manufactured components, the components must be of an acceptable standard. The only way that South African manufacturers, and any manufacturer for that matter, can ensure that the products that they are manufacturing are done so according to globally acceptable standards, is for the manufacturer to be certified to one or all of the above Quality Standards. There is increasing pressure on component manufacturers to become registered with 52 companies now conforming to the QS9000 quality management system applicable to the automotive industry, and 21 suppliers conforming to the VDA6.1 quality management system applicable to the motor industry. A further 72 dedicated automotive suppliers conform to the ISO 9001 or ISO 9002 (Current Developments in the Automotive Industry, 2000).

It is almost at a point where the possession or significant progress towards, an internationally recognised Quality Certification is mandatory if one is to export automotive components to any one of the developed countries in the world. According to Barnes quality is clearly no longer an order winning characteristic in the international market. It is now simply order qualifying (Barnes, CSDS Research Report No. 13, 1998).

1.5.3.2. Environmental Standards

Environmental standards, like Quality standards, are based on the ISO registration scheme. In the case of environmental standards, certification takes place according to ISO 14001. This standard reflects that the company is conforming to an environmental management system regarding their manufacturing plant, processes and products. Much like Quality standards, there exists increasing pressure from foreign companies to only purchase components from manufacturers that are subscribed to some sort of Environmental Standard. This pressure is significantly greater from developed countries that are particularly environmentally sensitive and aware. These pressures have the effect of forcing up the environmental awareness and standards of component manufacturers in South Africa that are exporting their products.

1.5.3.3 Health, Safety and General Working Conditions

While there are no standards nearly as formal or as internationally recognised as the ISO series for Health, Safety and Working conditions in general; standards do exist.

They are generally more specific to countries, industries and in some cases company specific to the larger corporations and multi-nationals. County specific standards tend to be Government legislation and regulations such as the Occupational Safety and Health Act (OSH Act Number 85 of 1993) here in South Africa and the Commission for Occupational Injuries and Diseases (COID Act Number 130 of 1993). This Act was previously known as the Workman's Compensation Act. South Africa also has a private organisation, National Occupational Safety Association (NOSA) which audits companies and rates them on system of 1 to 5 stars based on a documented system designed to ensure safe working environment. On a micro, or company level, certain companies have created Risk Management departments to assess the various risks associated with their operations. This practise is common in manufacturing operations, and particularly in the automotive and component manufacturing industries. Federal Mogul are very strong supporters of this and have their own Risk Management System which involves the allocation of a monthly safety score to each and every operation; with the highlight being an annual Risk Management audit. The results of both the monthly and yearly audits carry a high profile to such an extent that they form part of the monthly reporting information that is submitted to corporate headquarters each month together with the financial results.

There is no doubt that this additional exposure to global industry and competition will drag the standards of Health, Safety and general working conditions up. Foreign companies purchasing components from manufacturers in South Africa will; in the future be demanding higher quality and environmental awareness of those companies.

1.5.3.4 Manufacturing Technology

As South African component manufacturers endeavour to improve quality, worker safety and reduce the impact that their operations are having on the environment; they will be forced, simply by the very process to upgrade and update their manufacturing technology. The whole process is one of a reciprocating nature where in order to achieve the quality required by export customers; the local manufacturing concern must refurbish or even replace its plant and machinery in order to supply, on an ongoing basis, the required levels of quality. This results in an improvement to the local manufacturing technology.

All these improvements; be they better working conditions, improved health and safety for workers, better and more consistent quality, cleaner manufacturing plants with less impact on the environment all assist in the creation of “world class manufacturing operations” here in South Africa.

1.5.4 COMPONENT EXPORTS

By September 2000 there were approximately 220 automotive component manufacturers in South Africa, with another 150 supplying the industry on a non-exclusive basis (Current Developments in the Automotive Industry, 2000). While not all of these manufactures are currently involved in component exports, it is apparent that those component manufacturers that are exporting are looking to increase the quantities that they are exporting; and those that are not currently exporting, are looking very seriously at export markets for organic growth. The reasons for this

appear to be twofold. Firstly the South African car Parc is both relatively small in global terms and also in growth prospects. The second reason is the incentives offered by the MIDP for component manufacturers to export.

Given the structure of the MIDP and the manner in which it benefits export focussed rather than domestically focussed firms it would appear that those export orientated automotive component firms that tie themselves to the German-owned OEM's have an advantage over others in terms of their long term survival (Barnes, CSDS Research Report No. 13, 1998).

The combination of these two factors has led to a surge in the export of automotive components from South Africa. In 1999 the export of automotive components continued its rapid expansion and increased by 22,5% to R9,674 billion from the R7,9 billion in 1998 (Current Developments in the Automotive Industry, 2000). Figure 1.1 shows the growth in various component exports for the period 1995 to 1999.

FIGURE 1.1

MAJOR COMPONENT EXPORTS

Major component exports (Rm)						
	1995	1996	1997	1998	1999	% of total (1999)
Catalytic converters	388	485	835	1 520	2 569	26,6
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
Total component exports	3 318	4 051	5 115	7 895	9 674	100%
<small>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.</small>						
<small>Source: DTI</small>						

Source: Current Developments in the Automotive Industry, September 2000, DTI, Page 13

According to Barnes the growth in automotive component exports from South Africa is in fact one of the most redeeming features of the MIDP. Exports are, for example, clearly growing extremely rapidly and firms do perceive the generation of major

advantages from exporting, particularly in terms of economies of scale in production, productivity improvements, increased competitiveness and profitability (Barnes, CSDS Research Report No. 13, 1998).

1.5.5 TRADE BALANCE

The automotive sector in South Africa is still heavily dependent on imports for the assembly of automotive vehicles. Consequently there exists a trade deficit for the automotive sector in South Africa. However the increase in component exports has eroded this deficit in recent years. The sector recorded 3 consecutive years of declining trade deficit from 1996 to 1999, with a significant decline of R 1.8 billion for the period 1998 to 1999 (Current Developments in the Automotive Industry, 2000). Figure 1.2 shows the variation in the automotive trade deficit between the period 1992 and 1999.

FIGURE 1.2

TRADE BALANCE FOR THE AUTOMOTIVE INDUSTRY

Trade balance for the automotive industry			
	Imports (Rb)	Exports (Rb)	Forex usage (Rb)
1992	6.6	1.5	5.1
1993	9.1	2.3	6.8
1994	12.0	2.8	9.2
1995	16.4	4.2	12.2
1996	19.2	5.1	14.1
1997	17.2	6.6	10.6
1998	19.9	10.1	9.8
1999	22.8	14.8	8.0

Source : DTI

Source: Current Developments in the Automotive Industry, September 2000, DTI,
Page 14

1.6 SUMMARY

Despite only a very brief introduction to Federal Mogul Valves, their business environment and their manufacture of automotive components for the export market, it is readily apparent that there are several issues that only serve to complicate what appears to be a simple business operation. These issues, be they due to government intervention or due to Federal Mogul Valves own doing, they have a distinct and real

presence in the business environment in which Federal Mogul Valves operates. Some of them may compliment and assist the business in its operation, some may not be so complimentary and could even be detrimental to the operation. The trick for Federal Mogul is to be able to identify and differentiate between the two, devise appropriate action plans and execute those actions accordingly.

CHAPTER TWO

Strategic Model Development

2.1 INTRODUCTION

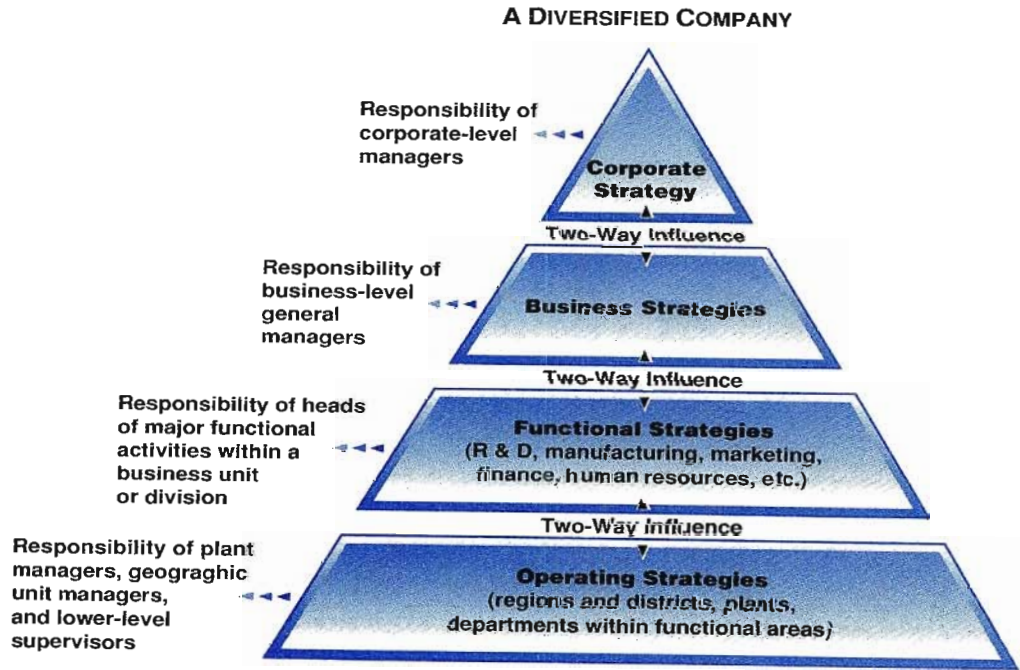
The situation that Federal Mogul is currently faced with appears to be somewhat precarious. They are in a situation where they are exporting components and by doing so, are enjoying the financial benefits of the export incentive associated with the MIDP. While this may be a fairly cosy and favourable position for them to be in; there appears to be a need for a reassessment of the situation regarding the future of these benefits under the MIDP. The current status of the MIDP program is such that these export incentive are to be progressively reduced every year and ultimately phased out in 2007. It is this staged reduction and eventual discontinuation of the export incentive associated with the MIDP that requires a decision be made regarding the long-term manufacture of components for the export market by Federal Mogul. This decision may or may not require a shift in the current strategy of Federal Mogul. In order to better analyse the current and future direction that Federal Mogul are to pursue, some strategic concepts, models and theory will be analysed.

2.2 THE VARIOUS STRATEGIC LEVELS WITHIN AN ORGANISATION

Most large Multinational Corporations typically divide themselves into sub-units. These sub-units are generally based on the basis of function, type of business, or geographical area (Hill, 2000). These various sub-units will have to make decisions regarding their operations. These decisions will vary from day to day decisions

through short term decisions, and on to longer term decisions. This range of decisions will result in each sub-unit creating and having their own specific strategies in order to enable them to perform their required functions. According to Thomson and Strickland (1998), the process of creating and making a strategy is not just a task for senior executives. The task of deciding on what business approach to take and what new moves to initiate often involve senior executives in the corporate office, heads of business units and product divisions, heads of major functional areas such as manufacturing, marketing, sales, finance and human resources, plant managers, area and sales managers and first level supervisors. In diversified companies, strategies are initiated at four distinct levels within the organisation. Figure 2.1 shows the various strategy levels within an organisation.

FIGURE 2.1
STRATEGY PYRAMID



Source: Strategic Management, Tenth Edition, Thompson & Strickland, Page 45

2.2.1 CORPORATE STRATEGY

This is the strategy for the company and all of its businesses as a whole. It extends company wide and much like an umbrella, covers all of the company's businesses. It consists of the moves made to establish business positions in the various industries in which the company is operating; and the approaches that are used to manage these various companies. The responsibility of creating and setting these strategies is that of corporate level management, the CEO and other key executives. At this level, decisions on strategy, or intended changes to it, are generally approved by the board of directors of the company.

2.2.2 BUSINESS STRATEGIES

These are the separate and specific strategies for each of the business the company has diversified into. The prime objective of the business strategy is to determine how to build and strengthen the company's long term competitive position in the marketplace. The business-level or general managers are responsible for setting these strategies. Business strategies are typically reviewed/approved by a senior executive or a board of directors.

2.2.3 FUNCTIONAL STRATEGIES

These are the strategies or managerial game plan for each specific functional unit within the business. Functional strategies involve crafting moves and approaches to support the business strategy and to achieve functional/departmental performance

objectives. They are the responsibility of heads of major functional activities within a business unit or division. Functional strategies are typically reviewed/approved by a business unit head. Examples of these functional strategies are a production strategy, a marketing strategy, human resources strategy and a finance strategy.

2.2.4 OPERATING STRATEGIES

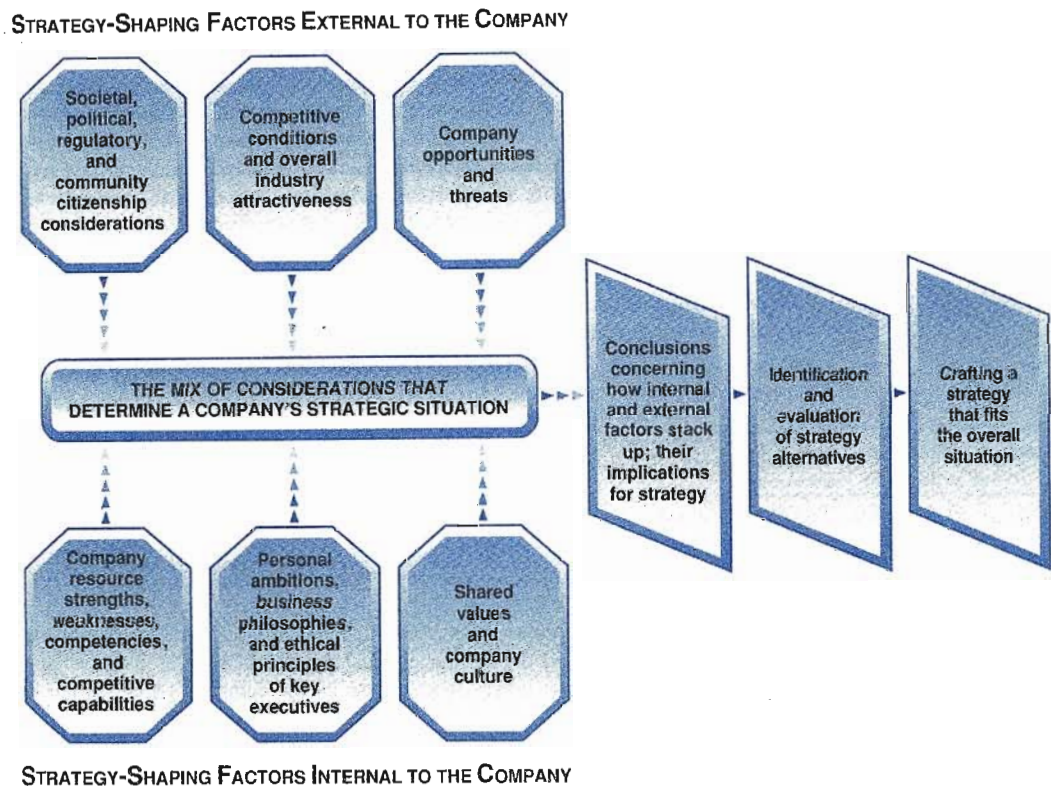
In terms of the organisation, these are the lowest level strategies that are applied at the basic operating units such as plant level, area or regional level and in certain cases even departments within functional areas. While Operational strategies are the approaches/moves used for managing frontline operating units, they are also important supports for both functional and business strategies. These strategies are the responsibility of plant managers, geographic unit managers, and lower-level supervisors; and are typically reviewed/approved by a functional area head or department head.

2.3 FACTORS IMPACTING ON A COMPANY'S STRATEGY

There are many situational considerations that influence and impact on the crafting of a company's strategy. These influences not only vary from industry to industry, but can be so specific that they can be different from situation to situation. Even in the same industry, situational factors differ enough from company to company that the strategies for rivals turn out to be quite distinguishable from one another (Thompson & Strickland, 1998). The factors that influence a company's strategy are clearly distinguishable into two broad segments, those that are external to the company and

those that are internal to the company. Both the external and internal factors that influence a company’s strategy are indicated in Figure 2.2.

FIGURE 2.2
FACTORS SHAPING THE CHOICE OF COMPANY STRATEGY



Source: Strategic Management, Tenth Edition, Thompson & Strickland, Page 55

2.3.1 STRATEGY AND THE EXTERNAL BUSINESS ENVIRONMENT

In more recent years the term “environment” has become more and more associated with green issues such as pollution, deforestation and global warming. While these issues are still completely pertinent to both companies and industries, the term

“environment” is used in a much broader sense to describe everything and everyone outside the organisation. This will include customers, competitors, suppliers, distributors, government and social institutions (Lynch, 1997). As these factors can influence to varying degrees the operation of any business, they are crucial factors that are to be considered when setting or altering the strategy of any business or organisation. As these elements of the environment change, the organisation needs to be aware of and understand these changes in order to alter its strategy accordingly.

2.3.1.1 Societal, Political, Regulatory, and Citizenship Considerations

Government policy and regulations will always have an impact on an organisation and its ability to operate within the legal framework controlled by that Government. Societal expectations and the ability to be seen to be doing the right thing in the eyes of the community has become an important consideration for modern business and industry. One method of analysing the general environment surrounding an organisation is to perform a PEST analysis. A PEST analysis is a study of the Political, Economic, Socio-cultural and Technological factors that effect the organisation.

2.3.1.2 Competitive Conditions and Overall Industry Attractiveness

The competitive conditions and overall attractiveness of an industry are important factors in determining the strategy that a business in that industry will develop and pursue. A company’s strategy can’t produce real market success unless it is well-

matched to the industry and competitive situation. A strategist must therefore be a student of industry and competitive conditions (Thompson & Strickland, 1998).

2.3.1.3 Market Opportunities and External Threats

Any business opportunities that may be open to a company, together with the developments that it faces, will have a significant influence on its strategy. Should any of these situations exist, then it indicates a need for strategic action. This strategic action must be such that it is deliberately aimed at capturing the best growth opportunities, particularly those ones that have the potential to build sustainable competitive advantage. Similarly, the strategy should be such that it provides a defence against external threats to the company's well being and future performance (Thompson & Strickland, 1998).

2.3.2 STRATEGY AND THE INTERNAL BUSINESS ENVIRONMENT

In order for any business to perform its required function, it requires particular resources. These resources include all operations and assets, the human resource, financial resource as well as any intellectual property. Understanding the way that these resources are utilised is crucial in understanding the way that the business operates.

2.3.2.1 Company Resource Strengths, Weaknesses, Competencies and Competitive Capabilities

According to Thompson & Strickland (1998), one of the most pivotal strategy shaping internal considerations is whether a company has or can acquire the resources, competencies, and capabilities needed to execute a strategy proficiently. The strategy that any company develops must be tailored to fit the company's resource strengths and competitive capabilities.

2.3.2.2 Personal Ambitions, Business Philosophies, and Ethical Principles

Any strategy that has been crafted will to some extent have a induced bias from the person responsible for creating that strategy. Managers will not dispassionately assess what strategic course to steer. Their choices will generally be influenced by their own opinion. Their attitudes towards risk will also have an influence on the strategy that they select. Risk averse management will generally tend towards a conservative and defensive strategy, while an aggressive and offensive strategy will generally be chosen by a risk taking manager.

2.3.2.3 Shared Values and Company Culture

All organisations have their own unique way of doing things; these can be policies, practices, traditions and beliefs. These unique ways of doing things lead to each company having it's own culture. These cultures have a varying effect on the strategy

that that company chooses to set. Typically a company that has a very strong culture will have it's strategy influenced, and possibly even dominated, by that culture.

2.4 LINKING THE INTERNAL AND EXTERNAL ENVIRONMENT

A useful way to link the Internal Business environment to that of the External Business Environment is to carry out a SWOT analysis. A SWOT analysis brings together the Strengths and Weaknesses from the Internal Environment with the Opportunities and Threats from the External Environment. A SWOT analysis is grounded in the basic principle that strategy-making efforts must aim at producing a good fit between a company's resource capability and its external situation (Thompson & Strickland, 1998). Without this good fit between the company's resource capabilities and deficiencies, its market opportunities, and any external threats to the company's future well being, the odds of creating a successful strategy that will guide the company to success, are very much reduced. While a SWOT analysis is unique to the company that it is carried out on, typical factors that should be considered when carrying out a SWOT analysis on a company are indicated in Figure 2.3.

FIGURE 2.3

SWOT ANALYSIS, WHAT TO LOOK FOR...

<p>Potential Resource Strengths and Competitive Capabilities</p> <ul style="list-style-type: none"> • A powerful strategy supported by good skills and expertise in key areas • A strong financial condition; ample financial resources to grow the business • Strong brand-name image/company reputation • A widely recognized market leader and an attractive customer base • Ability to take advantage of economies of scale and/or learning and experience curve effects • Proprietary technology/superior technological skills/important patents • Cost advantages • Strong advertising and promotion • Product innovation skills • Proven skills in improving production processes • A reputation for good customer service • Better product quality relative to rivals • Wide geographic coverage and distribution capability • Alliances/joint ventures with other firms 	<p>Potential Resource Weaknesses and Competitive Deficiencies</p> <ul style="list-style-type: none"> • No clear strategic direction • Obsolete facilities • A weak balance sheet; burdened with too much debt • Higher overall unit costs relative to key competitors • Missing some key skills or competencies/lack of management depth • Subpar profitability because . . . • Plagued with internal operating problems • Falling behind in R&D • Too narrow a product line relative to rivals • Weak brand image or reputation • Weaker dealer or distribution network than key rivals • Subpar marketing skills relative to rivals • Short on financial resources to fund promising strategic initiatives • Lots of underutilized plant capacity • Behind on product quality
<p>Potential Company Opportunities</p> <ul style="list-style-type: none"> • Serving additional customer groups or expanding into new geographic markets or product segments • Expanding the company's product line to meet a broader range of customer needs • Transferring company skills or technological know-how to new products or businesses • Integrating forward or backward • Falling trade barriers in attractive foreign markets • Openings to take market share away from rival firms • Ability to grow rapidly because of strong increases in market demand • Acquisition of rival firms • Alliances or joint ventures that expand the firm's market coverage and competitive capability • Openings to exploit emerging new technologies • Market openings to extend the company's brand name or reputation to new geographic areas 	<p>Potential External Threats to a Company's Well-Being</p> <ul style="list-style-type: none"> • Likely entry of potent new competitors • Loss of sales to substitute products • Slowdowns in market growth • Adverse shifts in foreign exchange rates and trade policies of foreign governments • Costly new regulatory requirements • Vulnerability to recession and business cycle • Growing bargaining power of customers or suppliers • A shift in buyer needs and tastes away from the industry's product • Adverse demographic changes • Vulnerability to industry driving forces

Source: Strategic Management, Tenth Edition, Thompson & Strickland, Page 107

2.5 SUMMARY

In order for Federal Mogul to decide on a route forward, they must assess their current strategy. That assessment will involve a close analysis of both their Business and Functional Strategies. However due to the nature of strategies and the way in which they are stratified within an organisation, there is going to be some influence on their Operational Strategy as well. In order to perform this assessment, Federal Mogul will need to consider the factors that will impact on their strategy. In order to do this they must assess both the internal and external environments in which they find their business operation. These assessment will disclose their relative strengths and weaknesses as well as their opportunities and threats. Once these factors have been established, then a new strategy or way forward can be created. If this process has been pursued thoroughly, then Federal Mogul will be in a favourable position to decide on the MIDP and how it will impact on them as a company in the future.

CHAPTER THREE

The Federal Mogul Position

3.1 INTRODUCTION

A government funded export incentive scheme is a topic that could lead to much debate regarding the real benefits and costs of that incentive scheme. Not only is Federal Mogul presently party to this scheme, but they are also in a position whereby they are aware of the reduction in this export incentive. By being in this position they are able to construct some sort of contingency plan to attempt to compensate for the reduction. They have a known time period over which the export incentive is to be reduced. By simply having this information they are in a position whereby they can examine and adapt their existing strategy in order to prepare themselves for the future. They are operating in an environment where there is a known change going to take place. They can sit back, observe that change and accept the outcome; or they can adapt, manage that change and influence their outcome. In order to perform the latter, they need to critically assess where they currently find themselves.

3.2 FEDERAL MOGUL VALVES' HISTORY

The company, which is today known as Federal Mogul Valves, was established in 1978. It originated as a company known as KBW Components that was purchased and subsequent to the purchase, renamed as KBW Valves. From 1978 to 1986, the company traded as KBW Valves from premises in Prospection, south of Durban. In 1988 the company's name was changed to AE Valves. 1989 saw a move to new and

larger premises in the Westmead industrial area just outside Pinetown. This move to Westmead in 1989 also coincided with the first export contract being fulfilled. These exports were supplied to what is now the Federal Mogul Aftermarket operation in the United Kingdom.

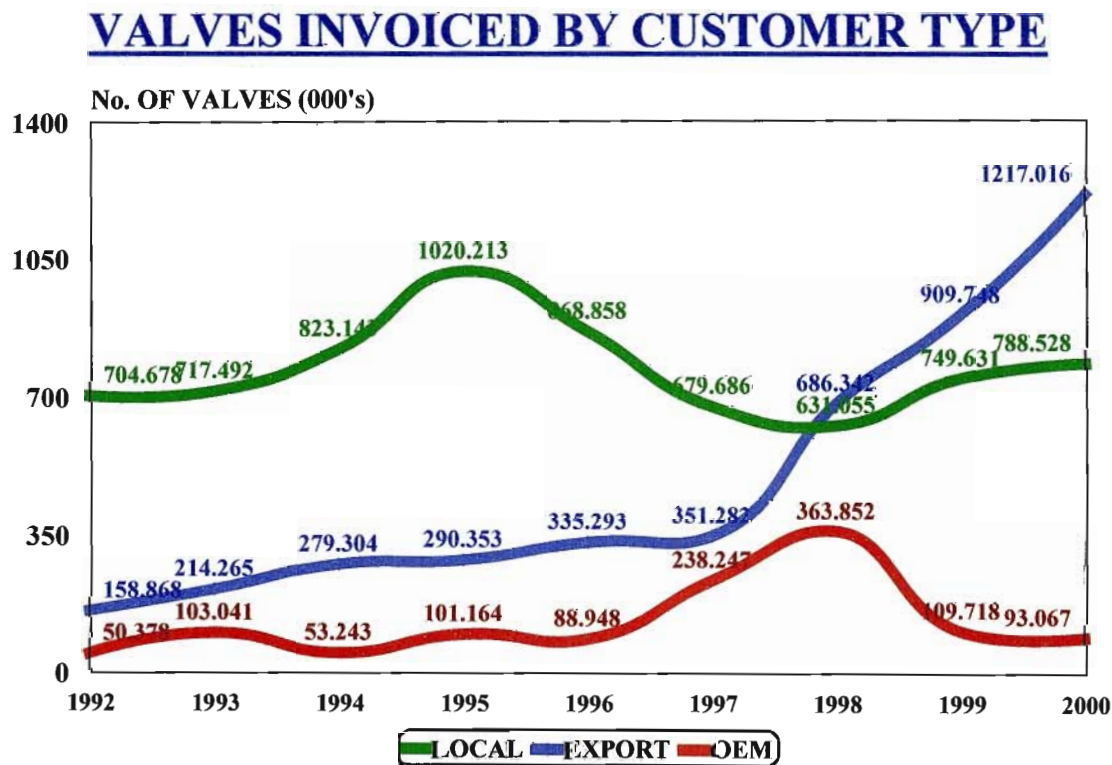
3.3 A GROWTH IN EXPORTS

All of the automotive component exports from the Federal Mogul Valves operation in Westmead, Pinetown are currently sold and shipped to Federal Mogul Aftermarket operations. These Aftermarket operations are located in the following locations:

- Bradford, United Kingdom
- Kontich, Belgium
- Verona, Italy
- Jacksonville, Alabama, United States of America

Export volumes from Federal Mogul Valves have experienced a significant growth since the first components were exported in 1989. This growth is reflected in Figure 3.1 and shows an exported volume of valves of just over 1,2 million valves for 2000. The forecast for 2001 is 1,4 million; with a planned export volume of 1,6 million in 2002 and 2,0 million in 2003 (Federal Mogul Valves, 2001).

FIGURE 3.1
VALVES INVOICED BY CUSTOMER TYPE



Source: Federal Mogul Valves, 2001

3.4 STRENGTHS

3.4.1 CONSISTENT ANNUAL GROWTH IN EXPORT VOLUMES

Since the commencement of exports in 1989, Federal Mogul has experienced a consistent annual increase in the volumes of components that were destined for export markets. This growth in export volumes is shown in Figure 3.1 and relates to an annual compounded growth of just below 26% for the period 1992 to 2000.

3.4.2 POSITIVE ORDER BOOK

The plan for 2001 shows some significant growth over 2000. Current order levels are looking positive and all indications are in place for achievement of forecasted volumes in 2001. The planned volumes for 2002 and 2003 indicate volumes that will continue the trend of growing export volumes.

3.4.3 ESTABLISHED DISTRIBUTION NETWORK

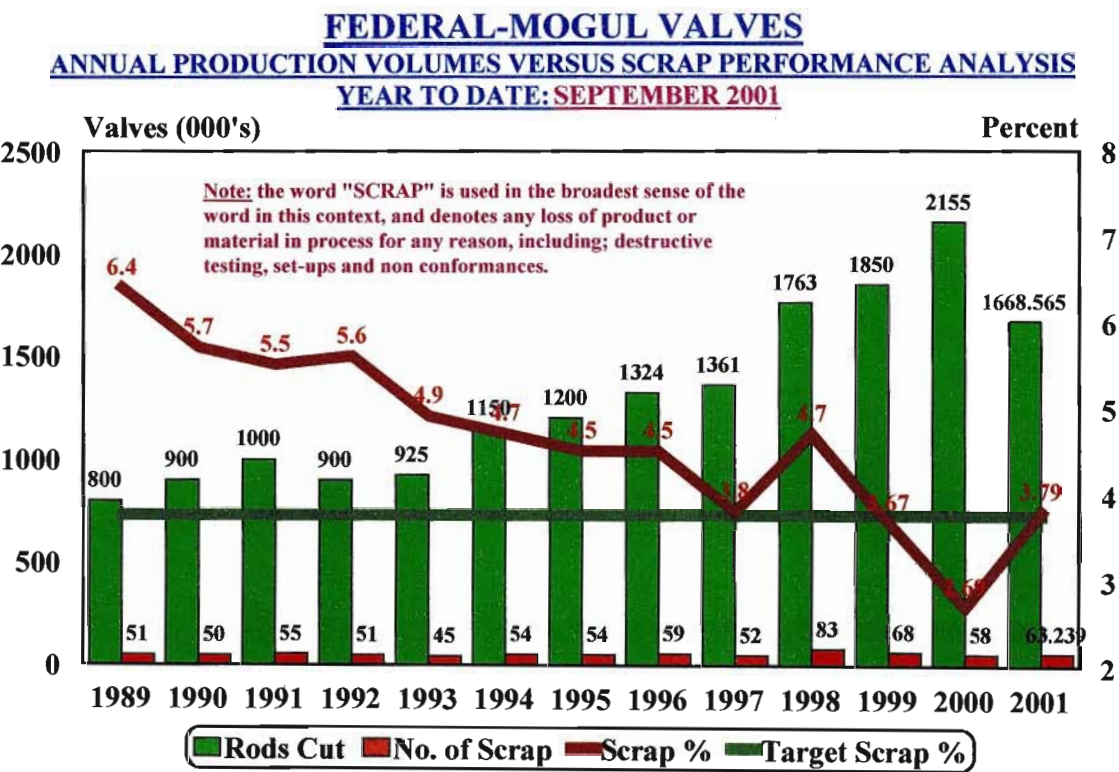
Federal Mogul Valves has the advantage of having access to an established distribution network in the various countries that it exports to. This network is the result of the various Federal Mogul Aftermarket operations strong position and presence in these countries. This network exists in the major markets to which Federal Mogul Valves exports to in Europe, the United Kingdom and the United States of America.

3.4.4 A RECOGNISED SUPPLIER OF QUALITY PRODUCTS

Federal Mogul Valves has been awarded and maintained internationally recognised and certified quality certifications. Initial certification to ISO 9002 took place in 1995, with certification to QS 9000 following 3 years later in 1998. Current certification to both these standards is included in Appendix 1. In addition to these formal certifications, Federal Mogul Valves maintain a reputation with their customers as suppliers of high quality automotive components. There exists in the manufacturing plant a commitment to producing quality products with minimum levels of scrap and wastage. Evidence of this is reflected in the steady reduction in scrap rate percentage produced by the plant. Figure 3.2 indicates this reduction in scrap produced by the plant over the period 1989 to September 2001.

FIGURE 3.2

FEDERAL MOGUL VALVES SCRAP RATE PERFORMANCE



Source: Federal Mogul Valves, 2001

3.4.5 SAFE, HEALTHY AND ENVIRONMENTALLY CONSIDERATE WORKPLACE

Federal Mogul Valves prides itself in the workplace in which it's components are manufactured. Evidence of this is their being awarded certification to ISO 14001 in August 2000. Very few manufacturing facilities in South Africa are able to conform to this demanding environmental standard. The fact that Federal Mogul Valves has been certified to this stringent environmental standard is further indication of the levels of commitment that exist within the company. Current certification to ISO 14001 is included in Appendix 2.

3.4.6 ACCESS TO MANUFACTURING TECHNOLOGY

Over 20 years of experience in the manufacture of engine valves has resulted in a wealth of knowledge and information regarding the suppliers of manufacturing plant, equipment and process technology specific to the manufacture of the components. Relationships established with these suppliers provide access to technological updates and changes.

3.4.7 LEAN FLAT ORGANISATIONAL STRUCTURE

Federal Mogul employs 180 people and practices a principle of lean management. Shopfloor employees report, via first line management, to 5 department heads. These department heads are responsible for Production, Engineering, Human Resources, Accounting and Quality/Health/Environment. These 5 department heads in turn report

to a Managing Director. The lean management principle is not only evident in the management structure, it is also practised throughout the organisation and is such that it promotes efficiency and teamwork while at the same time discouraging wastage and excesses. Employees are multi-skilled and as a result empowered so as not to become task specific. This promotes versatility and flexibility of all employees.

3.4.8 ESTABLISHED SUPPLIERS OF RAW MATERIAL

Much like there is an established relationship with suppliers of plant and equipment, there also exists an established relationship with the suppliers of the raw material. This relationship has been developed and fostered over the 20 years that the organisation has been in operation. This relationship is important in that it provides updates on changes to raw materials, specification changes and research and development possibilities. In addition to this, the suppliers of raw material are themselves certified to the quality standards of ISO 9002. In an industry such as the automotive industry where adherence to specific quality levels is mandatory, this is very important.

3.4.9 EXCELLENT DELIVERY PERFORMANCE

Federal Mogul Valves' delivery performance to its export customers is excellent. Considering that these export customers are, on average over 10 000 kilometres away, the logistical problems can be overcome to a point where delivery performances of over 90% are recorded on a regular basis; is a tribute to the organisation. This ability to ship exports reliably on an ongoing basis has resulted in customers developing a



high level of faith in Federal Mogul Valves’ delivery performance. A summary of the last 12 months delivery performance figures is shown in Figure 3.3.

FIGURE 3.3
FEDERAL MOGUL VALVES DELIVERY PERFORMANCE

DELIVERY PERFORMANCE STATISTICS



FEDERAL-MOGUL VALVES

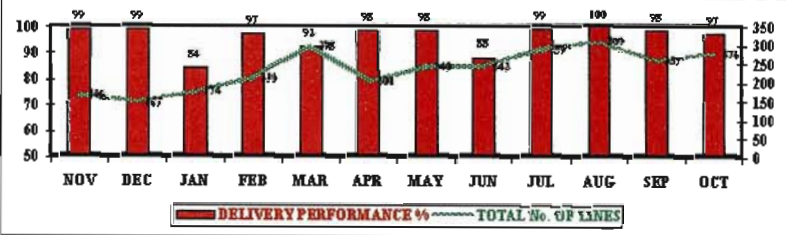
Delivery Performance % by Customer

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
	PERF	PERF	PERF	PERF	PERF	PERF	PERF	PERF	PERF	PERF	PERF	PERF
Federal-Mogul Auto Parts, Bradford, UK	98	99	95	99	85	99	97	77	97	100	97	98
Federal-Mogul Engine Parts, Johannesburg, SA	100	98	100	98	99	100	98	89	100	100	99	100
Federal-Mogul Auto Parts, Geneva, Switzerland	95	100	96	100	100	100	100	100	100	100	100	100
Federal-Mogul Auto Parts, Verona, Italy	100	100	100	100	75	77	100	100	97	97	100	85
Federal-Mogul Auto Parts, Jacksonville, USA	100	100	49	91	90	95	97	100	100	100	94	100
Samsco Engine Plant	100	100	100	100	100	100	100	100	100	100	100	100
TOTAL	99	99	84	97	92	96	98	88	99	100	98	97

No. of Lines in Month by Customer

	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
	LINES	LINES	LINES	LINES	LINES	LINES	LINES	LINES	LINES	LINES	LINES	LINES
Federal-Mogul Auto Parts, Bradford, UK	37	74	51	62	116	66	73	70	67	66	65	73
Federal-Mogul Engine Parts, Johannesburg, SA	44	38	63	74	139	72	100	88	134	157	114	133
Federal-Mogul Auto Parts, Geneva, Switzerland	20	8	22	13	9	15	22	18	26	10	22	13
Federal-Mogul Auto Parts, Verona, Italy	24	26	8	8	12	8	14	44	32	60	6	35
Federal-Mogul Auto Parts, Jacksonville, USA	34	8	28	50	20	38	27	18	28	15	49	20
Samsco Engine Plant	2	1	2	3	2	2	4	4	2	1	1	2
TOTAL	166	147	174	210	298	201	240	242	289	309	257	276

**TRENDS ON OVERALL DELIVERY PERFORMANCE
PERCENTAGE, AND TOTAL NUMBER OF LINES
ORDERED/DELIVERED**



Source: Federal Mogul Valves, 2001

3.5 WEAKNESSES

3.5.1 IMPORTED RAW MATERIAL

While there exists a good relationship with the raw material suppliers, there are also some problems. Two of the main suppliers are located in Italy and Brazil respectively. This in itself is not a problem, however since raw materials are priced in stronger foreign currencies (US Dollars and German Marks), it does mean that the Rand price of those currencies is vulnerable and susceptible to frequent and often extreme variations. In addition, given the location of the Raw material suppliers, lead times on the material is usually between 4 and 6 months. The material is specially produced steel that is generally not produced for any other application. Consequently it is only made to order and none is available on an ex-stock basis. The physical distance of the supplier from South Africa means that material must be consolidated for shipping purposes and can only be sea-freighted to South Africa which generally takes 4 to 5 weeks. In order to satisfy customer demands the only alternative is to hold raw material stocks at the manufacturing facility in South Africa.

3.5.2 IMPORTED PLANT AND EQUIPMENT

As all manufacturing plant and equipment is, like the raw material, imported, it is subjected to the same fluctuations in currency movements of the South African Rand against other major currencies. This means that as the Rand weakens, the Rand cost of importing plant and equipment is higher. This creates a situation where purchasing and upgrading plant becomes a large consumer of local currency.

3.6 OPPORTUNITIES

3.6.1 EXPORTS PRICED IN FOREIGN CURRENCY

Selling prices of exported components are set in various foreign currencies. Sales to Bradford in the united Kingdom are in Pounds Sterling; sales to Kontich, Belgium and Verona, Italy are in German Marks and sales to Jacksonville, Alabama in the USA are in US Dollars. As a consequence of the depreciation of the South African Rand against these foreign currencies, there is an achievement of higher selling prices when these sales are transferred to and reported in South African Rand. This creates an opportunity for higher turnover figures in the South Africa currency.

3.6.2 NETTING EFFECT OF IMPORTS AND EXPORTS

A further consequence of sales being invoiced in foreign currencies is the creation of an opportunity for netting imports against exports. In the case of Federal Mogul, raw material is imported in German Marks and US Dollars, while finished goods are exported in these very same currencies (as well as Pounds Sterling). This is an ideal opportunity to match currency inflows with outflows.

3.6.3 PROFIT MAXIMISATION THROUGH TRANSFER PRICING AND MIDP MECHANISMS

As the Federal Mogul manufacturing operation here in South Africa is a wholly owned subsidiary of the global Federal Mogul Corporation, there exists an opportunity to maximise profits through application of Transfer Pricing practices. While this practise may not be totally accepted or encouraged by governments and regulating authorities, one cannot deny the potential for these mechanisms to maximise profits for an organisation. In addition to the opportunities associated with Transfer Pricing, there also exists the possibility to maximise profits through maximum application of the benefits obtained from the export incentives associated with the MIDP scheme.

3.6.4 ECONOMIES OF SCALE

While economies of scale are typically associated with the actual manufacturing and processing operations, there exists an opportunity to realise these benefits in the supply chain as well. As production volumes grow, more raw materials are required. These greater volumes of raw material will permit more frequent shipments of the imported raw material, which will in turn ensure better availability of raw materials and the potential to reduce stock holdings. (Better working capital management). A similar opportunity exists at the other end of the supply chain or the shipping of the finished goods from the manufacturing plant. As the components are relatively small and consequently fairly light in weight, they have historically been exported by airfreight. While this is an expensive method of transporting the finished components,

it was also a fairly secure method of doing so as there were relatively small volumes involved. Sending these small volumes by sea-freight would have meant that less than a full container would need to be sent, and this posed several problems with security and reliability of shipments associated with groupage shipments. However as these export volumes grow, there is more and more reason to consider sea-freight as a method of transporting these components to their export destinations. The greater volumes now permit complete containers to be filled thus ensuring greater security and peace of mind of safer deliveries as well as less risk of damage and mixed shipments typically associated with groupage shipments. The cost benefits obtained from switching from airfreight shipments to sea-freight shipments are fairly significant and can contribute significantly to greater profits.

3.6.5 GROWTH OPPORTUNITIES

Federal Mogul make significant third part purchases (purchases from suppliers that are not with the Federal Mogul organisation) of these components each year. As long as this situation exists, there is potential to switch these third party purchases internally so that the revenue and profit associated with these sales are retained within, and enjoyed by the company as a whole. While cost plays an important role in determining the source of these purchases, so to does the capacity of the manufacturing plant in South Africa.

3.7 THREATS

3.7.1. AIDS/HIV AND ITS EFFECT ON BUSINESS IN SOUTH AFRICA

It is widely known and accepted that South Africa has one of the highest infection rates of AIDS in the world. While many people and organisations have attempted to project the impact that this will have on business and its ability to continue to operating under the burden of AIDS, it is still a hugely unknown factor that cannot be underestimated by any organisation operating in the country. The biggest threat of AIDS is the very fact that the precise details of its impact are still largely unknown and the best that business has to go on at this stage is projections.

3.7.2. WEAKNESS AND VOLATILITY OF THE SA ECONOMY

While there are benefits that have already been mentioned that are associated with the weakness of the South African currency, there is no denying the huge liability that is associated with weak and unstable economy. While economic stability is a good indicator of political stability, foreign companies will always be dubious about entering into long term supply contracts with suppliers that are located in countries that are considered to be of a higher than average risk.

3.7.3 LOWER PRICED COMPETITORS

As the process of globalisation continues to expand to include more and more developing countries, there is a constant threat of competitor products entering the market with lower priced equivalents. While these products may or may not display similar levels of quality, their presence is an indication that global competition is rapidly increasing and cannot be ignored or underestimated by any organisation. In a global industry such as the automotive industry; this is a threat that is possibly more relevant than some lessor industries which may not be considered as “global”. The threat of the entrance of lower priced competitors cannot be overstated. In an environment where there exists a subsidy with known and reducing benefits; the fact that there are already lower priced competitors present means that surely more will follow in time. These competitor products will come both from companies seeking to develop new markets; as well as those who will be rendered more competitive as a result of the reduction of subsidies available to local automotive component manufacturers.

3.8 SUMMARY

The SWOT analysis that has been performed does not provide a solution to the dilemma that Federal Mogul is faced with. Unfortunately a solution is not that simple to obtain. However, what the SWOT analysis does is to provide valuable information about the position that Federal Mogul finds itself in. It helps to identify opportunities that must be exploited in order for Federal Mogul to craft a strategy to enable them to successfully deal with the dilemma that they are facing. The SWOT analysis helps by

identifying and possibly even suggesting some strategic direction in which Federal Mogul must go in order to address the dilemma. It helps to identify areas that require action in order to deal with threats to the organisation. It also helps to identify areas where the organisation possesses strengths that are critical to the present and future operation of that organisation. These success factors must be both maintained and developed further to prevent competitors from eroding the market share that Federal Mogul have worked so hard to develop over the years that they have been in business.

CHAPTER FOUR

The Motor Industry Development Program

4.1 INTRODUCTION

Federal Mogul Valves is a company whose business involves the manufacture of automotive components. Some of these components are destined for use in the domestic automotive industry in South Africa, however the balance of the components are exported to Europe and the United States of America. Generally the automotive industry is highly regulated and the presence of Government support of the industry is common throughout the world. South Africa is no different in this regard and consequently the export of automotive components from South Africa is currently subsidised by the South African government. This legislation is known as the Motor Industry Development Program (MIDP) and is administered by the department of Trade and Industry (DTI).

4.2 ESTABLISHMENT OF THE MIDP

The Motor Industry Development Program was implemented in September 1995 by the Department of Trade and Industry. This occurred in the context of rapid trade liberalisation and a major structural shift in government policy and the trade regime. The MIDP was initiated in recognition of the problems besetting the domestic automotive industry. These were essentially a high-cost / low volume production structure that was a result of the various local content programmes that had protected the industry for over three decades. The MIDP was a result of government's new

industrial policy to rapidly increase the international competitiveness of the domestic automotive industry and facilitate increased exports of vehicles and components. It was established after considerable consultation between all industry stakeholders, including the South African government, the domestic Original Equipment manufacturers (OEM's) and automotive component producers, as well as NUMSA, the National Union of Metalworkers of South Africa (Barnes, CSDS Research Report No. 27, 2000a).

4.3 OBJECTIVES OF THE MIDP

The Motor Industry Development Program was initiated with five explicit objectives aimed at remedying the problems besetting the Motor Industry in South Africa. These five objectives were to:

1. Improve the international competitiveness of OEM's and automotive component firms.
2. Improve vehicle affordability in real terms
3. Enhance the growth of the assembly and component industries, particularly through exporting
4. Improve the industry's highly skewed trade balance
5. Stabilise employment levels

(Barnes, CSDS Research Report No. 27, 2000a).

These objectives were deemed to be non-mutually exclusive and it was agreed that they could be achieved through the phased integration of the South African industry into the global automotive environment.

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4.4 MECHANISMS OF THE MIDP

In order to achieve these objectives, the MIDP comprises five sets of policy mechanisms. These are the original mechanisms of the MIDP and were set to be in operation until 2002. These mechanisms are:

1. A tariff phase down schedule that reduces nominal rates of protection of over 100 percent under Phase VI of the previous regime's Local Content Programme to 40 percent for Completely Built Up units (CBU's), and 30 percent for Completely Knocked Down (CKD) components by 2002.
2. A Duty Free Allowance (DFA) for domestic OEM's of 27 percent of the wholesale value of the vehicles that they manufacture.
3. A Small Vehicle Incentive (SVI), which operates as a subsidy for the manufacture of more affordable vehicles. It operates via a duty drawback mechanism with the value of the drawback being contingent upon the ex-factory value of the motor vehicle.
4. The complete abolition of a minimum content provision for domestic OEM's.
5. An Import/Export Complementation (IEC) scheme that allows both OEM's and component manufacturers to earn duty credits from exporting. These duty credits can then be used to offset import duties on cars, components or materials, or alternatively they can be sold on the open market. (Barnes, CSDS Research Report No. 27, 2000a).



4.5 MIDTERM REVIEW OF THE MIDP

The MIDP has recently been subjected to a midterm review, which culminated in July 2000. The objective of the midterm review was to provide a longer planning horizon to participants in the program; and to address some of the minor imbalances that had crept in since its inception in 1995. The midterm review also confirmed the extension of the program through to 2007 by finalising tariff schedules that will be applied from 2002 through to 2007. Input into the review was received by component manufacturers, OEM's, retailers and labour. Strong support was received by all players involved in the program (Williams, 2001). The midterm review of the MIDP essentially re-emphasises the mechanisms through which players registered within the MIDP may reduce the duty payable. The original three mechanisms; the Duty Free Allowance (DFA), the Small Vehicle Incentive (SVI) and the Import/Export Complementation scheme (IEC) are still present. A fourth mechanism, a Productive Asset Allowance (PAA) has been added to provide an incentive for further investments and model rationalisation. The mechanism through which Federal Mogul obtains its export incentives is the Import/Export Complementation scheme (IEC). This mechanism will be the subject of further explanation as it is the single mechanism that has an impact on Federal Mogul's competitiveness and ability to export automotive components under the MIDP mechanism. The other mechanisms are more specific to OEM's who manufacture and assemble vehicles in South Africa.

4.6 IMPORT/EXPORT COMPLEMENTATION

The Import/Export Complementation scheme allows for reductions in import duties on cars and light commercial vehicles according to values exported. For example, for every Rand of South African value added/raw material in a CBU exported, a Rand of CBU or components can be imported duty free. Or, in the case that is more relevant and important to Federal Mogul Valves, for every Rand of South African value added/raw material in components exported; either 70 cents (for 2001) of CBU or one Rand of components can be imported duty free. In 2002 the 70 cents reduces to 65 cents, and from 2003 to 2007 this reduces further to 60 cents. These figures, together with the CBU and CKD duties are displayed in Figure 4.1. The CKD column is the column that reflects the rebate applicable to Federal Mogul Valves' component exports. From 2003 onwards there is a further reduction in the value that may be imported for every Rand of local content exported. This is known as the Qualifying value of Eligible Export Performance. Up to and including 2002 it has zero effect as it is reflected at 100%, however from 2003 it starts at 94% and reduces by 6% each year to a final figure of 70% in 2007. These values are also reflected in Figure 4.1.

FIGURE 4.1

TARIFF SCHEDULES OF THE MIDP

Year	CBU Duty Light Vehicles	CKD Duty	SVI Additional DFA	Qualifying Value of Eligible Export Performance	Components, heavy duty vehicles & tooling exported : CBU light vehicles imported	Qualifying Precious Metal Content in Catalytic Convertors
1999	50,5%	37,5%	R 40,000 @ 3%	100%	100:75	90%
2000	47,0%	35,0%	R 44,000 @ 2%	100%	100:70	80%
2001	43,5%	32,5%	R 44,000+PPI@1,5%	100%	100:70	60%
2002	40,0%	30,0%	2001 value + PPI@1%	100%	100:65	40%
2003	38,0%	29,0%	WITHDRAWN	94%	100:60	40%
2004	36,0%	28,0%		88%	100:60	40%
2005	34,0%	27,0%		82%	100:60	40%
2006	32,0%	26,0%		76%	100:60	40%
2007	30,0%	25,0%		70%	100:60	40%

Source: Department of Trade and Industry

4.7 ADMINISTRATION OF THE MIDP

The MIDP is administered by the Department of Trade and Industry (DTI). In order to participate in the MIDP scheme, the importer and exporter must be registered with the Department of Trade and Industry, as must the exported product and the manufacturer. The issuing of documents known as Import Rebate Credit Certificates (IRCC's) controls the scheme. These documents are issued by the DTI, to exporters once the foreign funds have been expatriated. These certificates may be transferred once only, and can be sold by the exporter to a registered importer, thus giving them a cash value on the open market. It is important to mention that the above benefits associated with import rebating using exports only apply to the local content contained in the exported component. The value of any imported raw material and/or componentry is not considered to be South African value added and may not be included.

4.8 THE SALE OF IMPORT REBATE CREDIT CERTIFICATES

The fact that the Import Rebate Credit Certificates (IRCC's) can be sold or transferred once is an important regulation of the MIDP mechanism that permits access to the scheme by Federal Mogul. In terms of the scheme, the more "exports" a motor vehicle assembler can acquire, the greater the rebates that motor vehicle assembler can acquire against imports of either Completely Built Up (CBU) vehicles and/or components. These import rebates or credits are of significant value to the local motor vehicle assemblers who use them to reduce costs of both imported components used in the assembly of their locally assembled vehicles, as well as costs of CBU vehicles

that are imported fully assembled into South Africa. It is only by selling these IRCC's to South African motor vehicle assemblers that Federal Mogul is able to access the benefits associated with the MIDP. The fact that the various motor vehicle manufacturers in South Africa are all looking to earn as many "export credits" as possible, creates the situation of an open market for the sale of IRCC's. This permits a negotiable sale price for these IRCC's between the component exporter and the motor vehicle manufacturer.

4.9 SUMMARY

The rules and regulations that govern the MIDP combined with the position that Federal Mogul are presently in; appears to be a perfect opportunity for Federal Mogul to take maximum advantage of the exports incentives associated with the MIDP. By manufacturing in, and exporting automotive components from South Africa, Federal Mogul are adding a certain percentage of South African value to the components that they are exporting to Europe and the United States. This satisfies the requirements of the MIDP mechanism to enable Federal Mogul to qualify for the export incentives. Although it is necessary to "sell" these incentives to a South African motor manufacturer at a negotiated price, there still exists a potential for the component manufacturer to benefit financially from the MIDP scheme. The exact value of this benefit will vary from component manufacturer to component manufacturer; and will also be dependent on the value of imported componentry and/or raw material.

CHAPTER FIVE

The MIDP and it's benefit to Federal Mogul

5.1 INTRODUCTION

By selling or ceding it's IRCC's to a South African motor manufacturer, Federal Mogul Valves is eligible to obtain export incentives through the MIDP. These incentives are based on the local value added during the course of manufacture of the components in South Africa prior to exporting. While these incentives are set to reduce from their current levels between now and the planned discontinuation date of the MIDP program in 2007, there are still benefits to be obtained for Federal Mogul Valves both now and between the discontinuation date in 2007. As the receipt of the incentives associated with the MIDP are dependant on the sale or ceding of the IRCC's by the exporter to one of the motor vehicle manufacturers; this "sale" or cost of the IRCC plays an important role in the whole mechanism of the MIDP. By negotiating a more competitive price for the IRCC, a component exporter is able to realise a greater portion of the export incentive. Equally important is the demand for these IRCC's from the South African Motor manufacturers who are eager to receive as many cessions of IRCC's as they can. The possession of export credits is crucial to the Motor manufacturers as it provides them with the opportunity to offset their imports against those exports. This takes place in terms of the Import/Export complementation scheme of the MIDP.

5.2 LOCAL AND IMPORTED CONTENT OF EXPORTED COMPONENTS

The components that are manufactured by Federal Mogul Valves naturally require some form of raw material. The particular raw material required is only available ex-import. The raw material is essentially a high quality, heat-resisting steel. It is alloyed with particular elements to provide a combination of strength, durability and corrosion resistance. The grade and quality of the material is such that it is not available from local manufacturers. Consequently it is imported from specialist steel manufacturers in Italy and Brazil. The component itself is a single item that is manufactured from the above-mentioned raw material. The manufacturing process is essentially a metal working process that involves manipulation and further processing of the raw material. Other than the raw material, there is no Bill of Material and no assembly of component parts takes place. The selling price is determined by three factors:

- Raw material
- Direct labour to manufacture
- Overheads, which includes any margin

Consequently calculation of the imported content of the component is simple and limited to the raw material portion. The balance is deemed to be local value added and is subject to the MIDP incentive.

5.3 SALE OF IMPORT REBATE CREDIT CERTIFICATES

Import Rebate Credit Certificates can be sold on the open market at a negotiated price. In reality, these IRCC's are actually ceded by the seller, to the purchaser for an agreed price. In the case of Federal Mogul, their IRCC's are currently sold, or ceded

to the Toyota Motor Corporation in South Africa. The negotiated price of these IRCC's with Toyota Motor Corporation is 20% of their value. Hence for every Rand of South African value added in the component that is exported by Federal Mogul, 80 cents is paid to Federal Mogul, by Toyota Motor Corporation in return for the IRCC issued against that export. Once the ownership of the IRCC has passed onto Toyota Motor Corporation, it can be used freely by Toyota, in the Import/Export Complementation scheme of the MIDP described in Chapter 4.6.

5.4 AUDITING OF THE IRCC SALE PROCESS

The whole process of sale of IRCC's requires auditing in order to verify its validity. This is a requirement of the Department of Trade and Industry and a certificate validating the process is submitted with the MIDP claim. This validation process is generally carried out by a professional auditing firm. In the case of Federal Mogul Valves, the auditing firm KPMG performs the auditing process. In return for their service, the auditing firm charges an auditing fee. This fee is usually negotiated between the exporter of the components and the auditing firm.

5.5 AN EXAMPLE OF THE MIDP MECHANISM

For 2001 the current allowable rebate in terms of the MIDP is 32.5% of local value added. If the component is to be exported, then this 32.5% of the local value added may be claimed back from the Department of Trade and Industry. However as this claim may only be made by a Motor Vehicle manufacturer, the export needs to be ceded to the motor manufacturer in order to permit them to make the claim. In the

case of Federal Mogul Valves this cession comes at the cost of 20% of the claim value. So if the component is sold for R15.00 and the imported raw material content is R3.00, it follows that the local value added is:

$$R15.00 - R3.00 = R12.00.$$

The calculation of the export incentive is thus:

$$R12.00 \times 0.325 \times 0.8 = R3.12$$

So, effectively the real selling price is the original R15.00 plus the export incentive, which in this case is equal to R3.12. So after claiming the export incentive, Federal Mogul Valves receives a total of R18.12. From this it is necessary to deduct the auditing fee due to the auditing firm for validating the process.

5.6 FEDERAL MOGUL VALVES EXAMPLES

As is typical within the automotive industry, all the components that are manufactured by Federal Mogul Valves have unique part numbers or references for identification purposes. Each and every part has an individual part number and Federal Mogul currently have some 1500 different part numbers. Of these approximately two thirds are part numbers that are exported. From the approximately 1000 parts that are exported, two examples have been selected to provide an example of the raw material content included in the components. The two parts that have been selected are sold to

the Federal Mogul Aftermarket in the United Kingdom and the selling price has been converted to South African Rand at an exchange rate of 1GBP to ZAR11.00

5.6.1 PART NUMBER V91835

Part selling price is $\text{GBP}0.82 \times 11.00 = \text{R}9.02$

Value of the material content is R1.44

So material content is:

$$\text{R}1.44/\text{R}9.02 = 0.1596$$

Or 15.96% of the selling price.

So local Value added is:

$$\text{R}9.02 - \text{R}1.44 = \text{R}7.58$$

Hence export incentive is equal to:

$$\text{R}7.58 \times 0.325 \times 0.8 = \text{R}1.97$$

So while the component is sold to the customer at an effective price of R9.02, the real selling price after receipt of the MIDP incentive is:

$$R9.02 + R1.97 = R10.99$$

In this case the incentive associated with the MIDP adds:

$$R1.97/R9.02 \times 100 = 21.84\%$$

To the selling price of part V91835

5.6.2 PART NUMBER V91998

Part selling price is GBP2.21 x 11.00 = R24.31

Value of the material content is R4.88

So material content is:

$$R4.88/R24.31 = 0.2007$$

Or 20.07% of the selling price.

So local Value added is:

$$R24.31 - R4.88 = R19.43$$

Hence export incentive is equal to:

$$R19.43 \times 0.325 \times 0.8 = R5.05$$

So while the component is sold to the customer at an effective price of R24.31, the real selling price after receipt of the MIDP incentive is:

$$R24.31 + R5.05 = R29.36$$

In this case the incentive associated with the MIDP adds:

$$R5.05/R24.31 \times 100 = 20.77\%$$

To the selling price of part V91998

5.7 SUMMARY

In the case of Federal Mogul Valves, the two examples that are reflected in paragraph 5.6 indicate the contribution that the MIDP incentive can and does make, is of such a nature that it cannot be ignored. The ratio of local value added to the selling price of the component is such that; under the current rules and regulations of the MIDP mechanism, it results in impressive yields of 21.84% and 20.77% over and above the effective selling price. These yields are effectively additional margin for Federal Mogul Valves and this is taken directly to the bottom line. While the examples shown are merely a sample of the 1000 parts that are exported by Federal Mogul Valves, it is

commonly accepted that the MIDP mechanism adds an average of 20% to the normal profits earned by Federal Mogul Valves. This is effectively a 20%, on average, export subsidy. Figures of this nature cannot be ignored and must form an important part of Federal Mogul Valves strategic planning. While these incentives could be used to bolster the profitability of Federal Mogul Valves, they could equally be used to subsidise the competitiveness of pricing for exports. Either way they are an important aspect of the operation of Federal Mogul Valves and as such need to be considered with extreme care. The continued presence of the MIDP incentive until 2007 needs to be carefully understood and any strategic plans must take into consideration the phased reduction between the present and 2007.

CHAPTER SIX

Recommendations

6.1 INTRODUCTION

Federal Mogul Valves is faced with somewhat of a dilemma. They are in the fortunate position of being on the receiving end of a significant export subsidy in the form of the Motor Industry Development Fund. That subsidy is effectively contributing an additional 20% to their profitability. While this appears to be a favourable position to be in, there is an area of some concern. The subsidy in its current form is scheduled to be discontinued in 2007. This presents Federal Mogul Valves with the aforementioned dilemma and one that these recommendations will hope to address.

6.2 A CHANGE IN STRATEGIC APPROACH

By crafting a strategy that will take into account the phased reduction in the export incentive associated with the MIDP, Federal Mogul Valves can attempt to pre-empt the business environment without the benefits associated with the MIDP. Armed with this knowledge and by simultaneously making changes to the way in which they currently do business, Federal Mogul can position themselves in a situation whereby they can maintain their success without the financial benefits of the MIDP. The profitability of Federal Mogul Valves is presently complimented by the MIDP. The effective 20% export subsidy is additional profit for Federal Mogul Valves. Without it they are still profitable, but to a lesser extent. As the export incentive decreases with time, changes must be implemented within the organisation to ensure that the

complimentary effect that the MIDP has on profits is replaced with other means of increasing profits. It will mean changes to Federal Mogul Valves strategic approach to business. These changes must be designed to increase manufacturing efficiencies and reduce wastage of all resources. These strategies must be designed to drive up turnover and reduce costs so that profitability in a post MIDP environment will be on par or better than that under the present MIDP. This preparation for the future must transpire, but not at the price of present opportunities. The 20% incentive that is presently available to component exporters must be maximised. As long as the MIDP continues to operate, there exists the possibility to maximise the benefits available to manufacturers and exporters of automotive components. Given there are another 6 years to go before the MIDP incentives are removed, Federal Mogul Valves must apportion sufficient time and effort to this equally important aspect. It is an aspect that must receive equal consideration by Federal Mogul Valves when crafting their strategic approach to the years of business between the present and 2007.

6.2.1 CORPORATE STRATEGY

As Federal Mogul Valves is part of the global organisation, Federal Mogul Corporation; there exists an opportunity for corporate strategy to play a part in what is a local South African export incentive scheme. By doing so there is a potential to focus corporate resources into business units that have the best potential and opportunities.

6.2.1.1 Greater share of 3rd party valve purchases

While the various Aftermarket operations of Federal Mogul are still purchasing a significant portion of the valves from 3rd party, or non Federal Mogul manufacturers; there exists missed opportunities to bring those sales, and subsequent profits, to within the organisation. Corporate strategy must be both changed and enforced to maximise in-house, or purchases from group manufacturing companies. The effect of this will be twofold. Firstly it will bring these sales and any associated profits into the group. Secondly, and more relevant to manufacturing operations in South Africa, it will qualify those components for the incentives associated with the MIDP.

6.2.1.2 Investment in South African Subsidiaries

In conjunction with the transition away from 3rd party purchases mentioned in paragraph 6.2.1.1, corporate strategy must also be tailored to strongly support the appropriate investments in South Africa. When switching component purchases away from 3rd party suppliers in favour of Federal Mogul's own manufacturing plants, there must also be parallel allocation of investment in those manufacturing plants. This investment is required to develop and supplement those manufacturing plants to accommodate the additional capacity that they will be required to produce. In addition to this the plants need to be able to both maintain and upgrade their plant and equipment to newer technologies as well as maintain the capability to produce components that are essentially both precision and highly engineered. In an industry as demanding as the automotive industry, the ability to both maintain and keep pace with these standards is mandatory for success.

6.2.2 BUSINESS STRATEGY

At a business unit level there are general management opportunities to influence methods of competing successfully. These methods of competing must be influenced in such a way as to produce and secure a competitive advantage over rivals. This may mean doing more of the things that they are good at, or possibly improving the things that they are not so good at. Ultimately it will require that both avenues are pursued and in order to effect this, Federal Mogul Valves need to recognise this when crafting their own strategy.

6.2.2.1 Develop and foster relationship with the Product Management Department

The Product Management teams of both the European and American aftermarkets are important to the manufacturing operations. The product management teams are responsible for sourcing, pricing, cataloguing and marketing functions in the aftermarket. In such a role the relationship between the manufacturing plants and product management is an important one that needs to be fostered and developed. The ability to keep track of new model releases is an ongoing task and is essential to a company who is offering spare parts for those new models. By having the first mover advantage, one is guaranteed sales on aftermarket parts as soon as there is a demand for those parts. In order to be that first mover, it is essential that there is a close working relationship between the manufacturing operations and their product management colleagues. Without that relationship it is impossible to achieve rapid response on new product development.

6.2.2.2 Growth in export volumes

As long as the export incentives associated with the MIDP are in existence, it is essential that Federal Mogul Valves maximise the manufacture of components for export. By manufacturing and exporting those components they are entitled to submit claims for those exports. It is very much a case of “make hay while the sun shines” and by not capitalising on this opportunity, Federal Mogul is essentially missing perfectly achievable opportunity to increase both turnover and profits.

6.2.2.3 Maintain policy of invoice currency in foreign/hard currency.

Sales of components from Federal Mogul Valves are invoiced in either US Dollars, German Marks or Ponds Sterling. This must be maintained as it has several significant benefits. Firstly, as all raw materials are imported it allows an ideal opportunity to net off payments of imported raw material against receipts for exports of finished goods. Thus the effect of any significant depreciation in the Rand, is not a significant concern regarding payments for raw material as receipts for the exports will be received in a hard currency. A second important reason to maintain this invoicing policy is that for any depreciation in the Rand, a fixed selling price in a hard currency will naturally yield more Rand in South Africa. This increase in equivalent Rand selling price can be used effectively to counter the high inflation Rand based value adding activities i.e. the labour content of the manufacture of the components. An extension of this could result in it also be used as a mechanism to justify reductions in selling prices in the foreign currency thus rendering locally manufactured components cheaper in foreign markets. A further reason to maintain the invoicing currency policy is that, in general,

the invoice currency is the currency of the market in which the components are to be sold. This is more suited to those particular markets as it permits easier comparison against competitors and reduces transaction risk for those customers purchasing the components.

6.2.3 FUNCTIONAL STRATEGY

While still at a business unit level, Functional Strategies are more specific than Business Strategies. They form part of the managerial game plan and are put in place to support the Business Strategies.

6.2.3.1 Maintain Quality, Health and Environmental Standards

In order to compete on a global scale it is imperative that Quality standards are maintained. Federal Mogul Valves is currently in possession of all the major internationally recognised quality standards. In order to maintain the ability to manufacture quality components it is imperative that these quality standards are maintained. Likewise occupational health and environmental standards at Federal Mogul Valves are comparable with typical global standards. All three of these standards are essential foundations to creating a first world manufacturing facility and must be maintained in order to ensure that the operation maintains this position. Resources and support from management together with commitment from all staff members must prevail in order to ensure that these standards are maintained. A proactive approach to these standards must be used in order to ensure that all future

quality, health and environmental audits proceed successfully and that Federal Mogul Valves remains a certified organisation in these various fields.

6.2.3.2 Maintain Excellent Delivery Performance

The present delivery performance of Federal Mogul Valves must be maintained at all costs. While at first it may not appear to be an important aspect of the company's strategy and one that has the potential to generate more business, it is quite simply a measure of the level of service that the company is providing to its customers. Viewed in this light it is an extremely powerful tool that can and must be manipulated to the benefit of the company. It can even be used as a mechanism to justify higher prices than competitors are able to offer. An example of this is that while a competitor may be 10% cheaper in price, if he is unable to deliver the components in time and the customer has no stock; the lower price is worth naught if there is no stock to sell. The flip side of this is that by ensuring that deliveries are made consistent on time, Federal Mogul Valves are in a significantly more favourable position to negotiate higher prices than poor delivering competitors.

6.2.3.3 Maintain manufacturing capability of Plant and Equipment

The components manufactured and sold by Federal Mogul Valves are engineered and precision components. The plant and machinery used to manufacture these components is specific to the industry of manufacturing Engine Valves. It can not readily be adapted to manufacture other components and as a result has relatively little value to any one other than an engine valve manufacturer. In addition to this it is

imported from various countries, primarily in Europe and as a result is by no means cheap to purchase and import into South Africa. Consequently it is imperative that it be maintained and preserved in order to ensure that it is reliable and able to produce components to the required specifications and quality standards demanded by foreign customers purchasing the exported components.

6.2.3.4 Reduction of freight costs through consolidation.

Federal Mogul Valves exports its components to various countries in Europe as well as the USA. Similarly there are other manufacturing units of Federal Mogul Corporation in South Africa that are doing exactly the same thing. While the components that these other units are manufacturing differ in shape and size, they are still be exported to the same consolidation centres in Europe. As each of these manufacturing units are responsible for their own freight and shipping functions, there surely exists an opportunity to consolidate these exports on a monthly, bi-monthly or even weekly basis. The greater volumes will ensure better bargaining ability for significantly more competitive shipping rates. In addition, with each unit performing its own export documentation, there is surely duplication of services that will be eliminated or reduced by consolidation of this function. The fact that these various component exports are being shipped to the same consolidation centres in Europe makes the whole process significantly easier as there is no need to break up the shipment on arrival in Europe for onward shipping to different locations.

6.2.4 OPERATING STRATEGY

As operating strategies are the lowest level strategies, they are applied at the basic operating unit level. In the case of Federal Mogul Valves, these will be plant level strategies. These operating strategies may even be so specific that they are applied to different departments within the plant.

6.2.4.1 Engineering safer, healthier and more efficient processes

The components manufactured by Federal Mogul Valves are precision engineered components that are manufactured on a wide range of machines. While these machines are currently deemed safe to operate in terms of the OSH act, there is always the possibility to design, engineer and install even safer methods of manipulating the raw material into a finished component. Similarly the processes can be improved to produce less waste, generate lower or ideally zero emissions and utilise fewer resources such as water and electricity. This will ensure an even safer and healthier working environment and the result is surely going to be improved employee morale and attitude. Also through increased and improved application of engineering resources, the various manufacturing processes can be improved and upgraded to yield greater efficiencies and output. All of these improvements will result in a better and more efficient workplace that will yield greater output per employee.

6.2.4.2 Increase operator efficiencies and outputs

The machines used to produce the components manufactured by Federal Mogul Valves like all other machines, require operators in order to make them work. Historically, as the machines have been manually operated, a situation has developed where there has been a requirement of one operator per machine. Through the introduction of semi and fully automatic machines, the opportunity has developed for multi-manning of machines where one operator is able to supervise 2 or possibly even 3 machines. It is only by increasing the number of components produced per operator that Federal Mogul are going to be able to raise operator efficiencies and thus achieve greater returns on both variable and fixed costs incurred during the manufacture of their automotive components. An important aspect impacting on operator efficiencies is the frequency and time taken to perform machine set-ups. This is required when a machine is changed from processing one particular part to being able to process another particular type. As this procedure could be carried out several times a day by a machine operator, it is imperative that this function take as little time as possible and be completed so that the machine and operator can return to more productive and value adding functions.

6.2.4.3 Reduction in Scrap figures

While Federal Mogul Valves does have a relative low scrap rate for the components it produces; and also one that has been steadily decreasing over the years, it is imperative that this decreasing trend continues. While a low scrap rate is a good indication that sufficient controls and procedures exist in the plant, it also represents a

low level of wastage. Essentially for each and every component that is scrapped or thrown away, both raw material and resources are wasted by processing that component to the point where it is discarded and no return can be obtained by selling it to the customer. By reducing this wasted resource, Federal Mogul Valves can realise greater returns on the inputs made.

6.2.4.4 Introduction of Lean Manufacturing Techniques

While there are many different terms to describe this approach to operating an organisation, one cannot deny the benefits that can be obtained by implementing it. However it is not as simple as applying a formula or introducing a new way of doing things; rather it requires a change in philosophy and culture within the organisation. Within the automotive industry the one company that has mastered the implementation of lean manufacturing is Toyota. They have called it the Toyota Production System or TPS. Federal Mogul are in the process of introducing this approach to several of their business units. They have chosen to utilise the term Constraint Management. Regardless of what term is used to describe it, Federal Mogul Valves must continue with their plans to implement lean manufacturing. The concept is one of continuous improvements and more efficient utilisation of resources with reduction in wastage. It is, in a sense, a culmination of all their Operating Strategies in one and while it may be the lowest level of all strategies, it is by no means the least important. In fact it may even be considered as the most important as without an efficient and profitable manufacturing plant, all other strategies regarding marketing, sales and distribution are severely hampered if not supported and complimented by the manufacturing operation.

6.3 SUMMARY

Federal Mogul Valves is a well-managed and run organisation. They are exporting a significant portion of the components that they manufacture. Part of the reason for their success in the export market can be contributed to their being able to offer competitively priced components to international customers. Federal Mogul Valves are able to achieve this without the incentive associated with the MIDP. As things currently stand, Federal Mogul is competitive without the MIDP subsidy; however this situation is by no means guaranteed. Business conditions can and will change and Federal Mogul Valves need to be aware of this and act accordingly. While the export incentive associated with the MIDP is complimenting their profitability, their ability to manufacture components with adequate efficiency results in their ability to generate profits. This is however not their only reason for success. Their ability to provide their customers with exceptional levels of service is equally important. This service may manifest itself in various forms. It may be consistently good delivery performance, it may be quick and efficient responses to new enquiries, it may be the consistent supply of good quality product. In effect it is a combination of all these factors that have made Federal Mogul Valves a successful operation. If they are to continue to be a successful operation after the demise of the MIDP, then they must act now to improve even more on these factors that have brought them this far. They are sound fundamentals that have been good enough this far and will continue to be good enough into the future. However the improved efficiencies and reduction of wastage associated with Constraint Management must continue to be implemented. This introduction will not be a quick fix, it will take time to implement and perfect. It will take time to mould old cultures and introduce new philosophies. Federal Mogul has

this time. The reduction in the MIDP benefits is known and understood. It is schedule to happen between the present and 2007. Federal Mogul Valves must use this time constructively and proactively to implement these improvements. These improvements will help to counter the reduced margins associated with the demise of the MIDP and ensure that Federal Mogul Valves can continue to export components in an environment that is free from export subsidies.

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APPENDICES

APPENDIX 1

ISO 9002/QS 9000 CERTIFICATION



CERTIFICATE



**The Certification Body
of TÜV Management Service GmbH**
certifies that

**FEDERAL-MOGUL
CORPORATION * POWERTRAIN * VALVES.
15 ALEXANDER ROAD
PINETOWN, 3600
REPUBLIC OF SOUTH AFRICA**

has established
and applies a Quality System for

**MANUFACTURE AND DISTRIBUTION OF
INTERNAL COMBUSTION ENGINE VALVES**


An Audit was performed in accordance with the requirements of QS-9000,
Appendix B, Code of Practice and documented in Report No. **24021888**

Proof has been furnished that the requirements according to
DIN EN ISO 9002 :1994 and QS-9000 :1998

are fulfilled. The certificate is valid until **May 2001**

Certificate Registration No. **12 101 6234 TMS**

Munich, 1999-12-14


Certification Body
of TÜV Management Service GmbH
Unternehmensgruppe TÜV Süddeutschland




11527/2-98

Source: Federal Mogul Valves, 2001

APPENDIX 2

ISO 14001 CERTIFICATION



DET NORSKE VERITAS

MANAGEMENT SYSTEM CERTIFICATE

Certificate No. EMSC - 1626

This is to certify that

the Environmental Management System

of

FEDERAL MOGUL VALVES

at

Pinetown, South Africa

has been found to conform to the Environmental Management System Standard:

ISO 14001:1996

This Certificate is valid concerning all activities related to:

MANUFACTURE AND DISTRIBUTION OF INTERNAL COMBUSTION ENGINE VALVES

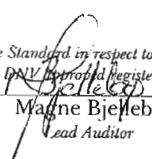
Original Certification date:


July 7th, 2000

This Certificate is valid until:

July 7th, 2003

Compliance to the Standard in respect to the indicated scope is verified by the DNV Approved registered Team Leader:


Magne Bjellebø
Lead Auditor

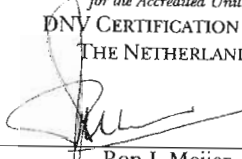

Accredited by the RvA

Place and date:

Rotterdam, July 7th, 2000

for the Accredited Unit:

DNV CERTIFICATION B.V.,
THE NETHERLANDS


Ron J. Meijer
Management Representative

Lack of fulfilment of conditions as set out in the Appendix may render this Certificate invalid.

CERT E 2000-07-01

DNV CERTIFICATION B.V. Haastrechtstraat 7, 3079 DC Rotterdam, The Netherlands, TEL.INT.: +31 10 2922 688, FAX: +31 10 4796 768

Source: Federal Mogul Valves, 2001