An e-business strategy for the South African Automotive Industry

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An e-business strategy

for the

South African Automotive Industry

By

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University of Natal Graduate School of Business Master of Business Administration

August 2000

CONFIDENTIALITY CLAUSE

TO WHOM IT MAY CONCERN

This work is of strategic importance.

It would be appreciated if the contents of this dissertation remain confidential and not be circulated for a period of five years.

Sincerely

Mark Parker

DECLARATION

I declare, to the best of my knowledge, the following statements to be true and correct.

This work has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

This dissertation is being submitted in partial fulfilment for the degree of Master in Business Administration at the University of Natal's, Graduate School of Business.

The dissertation is the result of my own independent work/investigation, except where otherwise stated.

Other sources are acknowledged by giving explicit references. A bibliography is appended.

I hereby give consent for my dissertation, if accepted, to be available for photocopying and interlibrary loans after expiry of a bar on access approved by the University of Natal.

11.08.2000

Mark Parker (981208645)

Date

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DEDICATION

This dissertation is dedicated to my wonderfully smashing girlfriend, Sharni who has given me the freedom to fulfil my ambitions and showered me with her love throughout my study period.

To my Dad and family in Stellenbosch, for your support and encouragement,

To my Mom and family in Durban, for your love and financial assistance,

I love you all and always will.

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FOREWORD

"They tell me that nature is the survival of the fittest. And yet look how many wondrous gold and yellow fishes prosper amongst the silent stones of the ocean beds, while sharks eternally prowl the waters in their impossible dreams of oceanic domination and while whales become extinct; look how many does and antelopes, ants and fleas, birds of aquamarine plumage, birds that have mastered Chinua Achebe's art of flying without perching, how many butterflies and iguanas thrive, while elephants turn into endangered species, and while even lions growl in their dwindling solitude... Nature and history are not just about the survival of the fittest, but also about the survival of the wisest, the most adaptive and the most aware"

(Ben Okri's "A Way of Being Free")

After reading the above excerpt consider for a brief moment the following questions:

- Which industries will be shattered in the new economic revolution?
- Which industries will boom?
- Who will win the Internet war?
- Which companies will dominate the 2020's?

"I don't think there's been anything more important or widespread in all my years at General Electric. Where does the Internet rank in priority? It's number one, two, three and four!"

(John F. Welch – Chairman and CEO, General Electric Corporation)

In a recent book by Wolfgang Grulke – Ten Lessons from the Future, it touches further on this subject and gives possible outlines to the answers to the questions mentioned.

"Gone are the limits, the boundaries, the time zones that once kept us distant and apart from each other. Gone, in a real sense, is the very notion of geographic distance and division. In today's world – the world of networks and connections, the wide, wired world of the 24x7x365 economy – we truly are one, united, joined in destiny, irrespective of our personal politics, ideologies, or pinpoints on the planet."

(Wolgang Grulke – Ten Lesson's from the Future)

As far as I am concerned the organisations, which best adapt to the new Internet Age and adopt ebusiness models/strategies effectively with sound business principles will be the organisations able to compete effectively in the 2020's. I believe my recommendation following in this dissertation will allow the organisations within the automotive parts industry to achieve this feat.

EXECUTIVE SUMMARY

Unlike any technology before it, the Internet has almost overnight achieved a broad level of global awareness, both for businesses and individuals. Global e-commerce will reach approximately \$1.3 trillion by 2003. Current market research data supports that the most rapid growth to come, both for B2C and B2B segments will occur outside of the United States. B2B e-business revenues will dominate, with over 85% of transactions occurring between businesses. To support the unique demands of designing and building e-Business sites, professional services companies are exploding, and are forecasting to generate well over \$60 billion in just the next few years.

According to most market observers, most companies severely underestimate the challenges of building and maintaining the global e-business. Whether a dot.com, Global 1000 or a small enterprise, effectively building robust e-business architecture that is able to address the global challenge requires a strategic outlook. The ability to grasp not only complex interrelationships between the various systems and platforms, but more importantly, the impact of using technology to help meet customer needs in any corner of the globe is required. Because ultimately the real benefit of the Internet is to closely connect company to customer, wherever each may be.

Therefore for industry and organisations to embark upon e-business strategy to effectively meet the needs of customers and at the same time reach operational efficiency within their supply chains and add insurmountable value should be the goal of all organisations.

Section One



CHAPTER ONE

INTRODUCTION & BACKGROUND

1.1 Introduction

This dissertation project aims to determine the benefits and changes that could be brought on A.F.M Holdings* through the introduction of e-commerce/e-business and the impact that is having on the way business is conducted.

Although the scope of this particular exercise was limited to the "sell-side" of A.F.M.'s business, it is difficult to separate the benefits of e-business into separate modules. For the ease of understanding I have included a road-map/diagram of e-business with a view to illustrating the benefits that e-business can bring to an organisation and ultimately to the extended value chain (Figure 1).

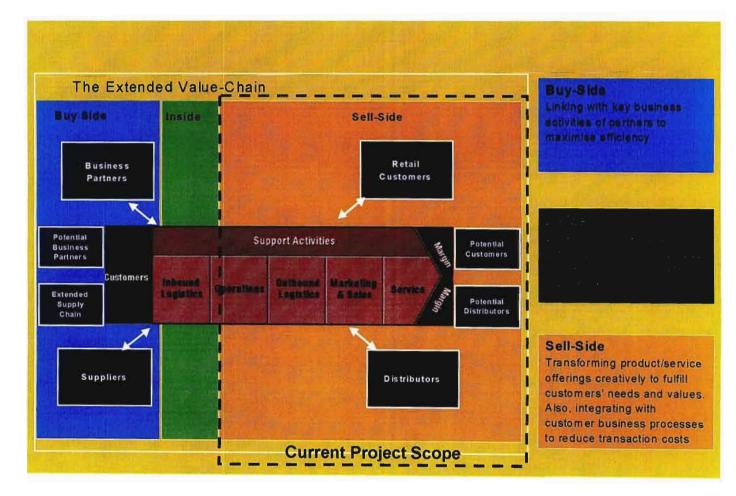
The two main areas of benefit explored were:

- 1. Improved business process efficiencies (cost and time).
- 2. Potential to "create" a new business model.

What is evidently noticed from the diagram displayed, is the entirety of the e-business processes across all levels of an organisation's business. In essence, e-business is industry wide as well as company wide. I have attempted to view purely the supply and logistics/distribution function of the automotive industry as well as certain customer management issues affecting the industry based on certain findings and observations, which will be identified at a later stage in this dissertation.

*A.F.M. Holdings (Pty) Ltd is a fictional name given to the organisation for confidentiality purposes.

Figure 1: e-Business Road Map of Benefits to the Value Chain



1.2 Scope

The scope of this project covered A.F.M. Holdings (Pty) Ltd, which comprises of the two companies namely A.F.M. and Porfil*. Under these two banners, the two operate separately but follow similar strategies. Whilst it is conceivable that there may initially be separate and perhaps disparate strategies for each, I have attempted to bring this together into one overarching strategy for the two companies where applicable.

The scope also included discussions with other select or a representative sample of automotive part manufacturers and suppliers, buying groups, wholesalers, logistics companies and retailers. In essence, the entire extended value chain could be included. I identified an e-Business strategy that covered the "sell-side" of the value chain, i.e. the sale and distribution processes.

The scope from a geographic perspective predominantly covered Durban and Pietermaritzburg but within my research I have journeyed to Johannesburg to gather further research material.

1.3 Objectives

The objective of the project is to develop a Business Strategy for A.F.M Holdings taking into consideration the opportunity e-Business has to offer.

This would:

- Ensure that the Strategy is practical and delivers added value to
 A.F.M. Holdings by covering specific issues such as distribution channel strategies.
- Solicit input from all stakeholders so as to ensure that all possible scenarios are covered in as much detail as possible.
- Understand the industry forces at play whilst recognising that e-Business can potentially redefine this industry.

*Porfil is a fictional name given to the organisation for confidentiality purposes.

1.4 Work Done

1.4.1 Interviews

Detailed interviews were conducted following a questionnaire format developed by myself, which was invaluable to understanding the varied forces at play within the industry. The aim of the questionnaire was to assess the e-business readiness of the various stakeholders so as to ascertain what the impact of certain strategies would have on the industry from a macro point of view, and at the same time gather further information regarding the industry dynamics.

Based on the work done, the entire dissertation's objectives and scope were drawn together to form a framework which would ultimately come together as an e-strategy. Below is a diagrammatic representation of the framework (Figure 2), which clearly demonstrates the process which was followed in formulating this e-business strategy for the South African Automotive Parts Industry. **Figure 2: e-Strategy Framework**

e-Strategy Framework

The framework consists of four major stages:



1.4.2 Assess e-Offerings

The e-business readiness assessment questionnaires conducted throughout the industry gave one a broad understanding of the forces at play within the industry. The questionnaires and general interviews conducted, especially with A.F.M. management, set the groundwork for the entire dissertation and gave one an excellent insight into the offerings which e-business could give to the industry.

1.4.3 Assess Opportunities

Based on my research into e-business as well as gaining valuable experience from my research into the industry it was relatively simple to assess the opportunities which e-business could offer not only A.F.M. Holdings, but also the industry as a whole.

1.4.4 Identify Obstacles

In order to be able to develop any strategy it is critical that an understanding of the obstacles that may occur be thoroughly tested and debated with oneself and industry stakeholders in order to fully understand the implications of the e-business strategy.

1.4.5 Develop e-Strategy

Based on the previous three steps it was then relatively simple to formulate the necessary strategy. However in reality, owing to the complicated nature of the Automotive industry a number of possible strategies have been put forward and each discussed on its merits as well as the risks that may arise from their respective implementations.

In order to proceed to the e-strategy framework, a necessary understanding of e-business needs to be developed by the reader so as to grasp the fundamentals of this dissertation. Whilst e-business is a vast subject that covers all areas of business I have attempted to condense as much information as I can into something easily understood.

SECTION Two

AN INTRODUCTION TO e-BUSINESS

CHAPTER TWO

AN INTRODUCTION TO e-BUSINESS FUNDAMENTALS

Below is a generalised overview of generic e-business fundamentals for an organisation. It is not meant to be all encompassing but attempts to give the best possible background into the way in which organisations can benefit from e-business capability.

2.1 Introduction

"All companies will be doing business over the Internet in five years, or they won't be doing business at all"

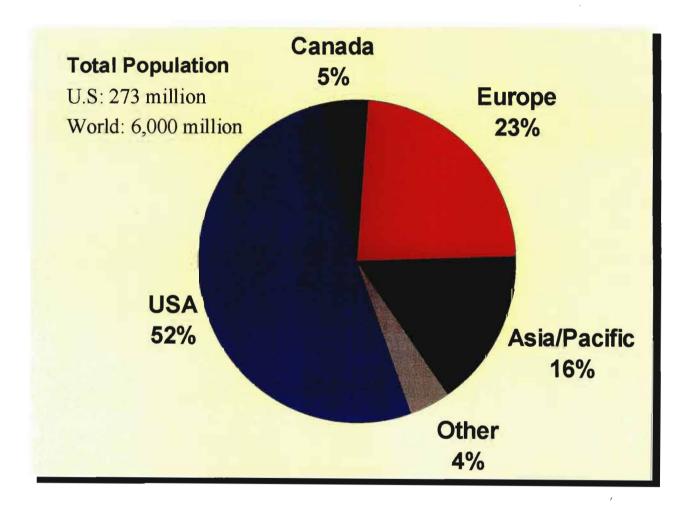
(Andy Grove, Chairman – Intel)

It's no secret that business moves quickly. It always has. But with the advent of the Internet, the speed at which business moves has accelerated to reflect the technology that enables it, signalling the birth of e-business. This modern business phenomenon has revolutionised the way organisations do business with everyone from customers and suppliers to distributors and employees by streamlining the underlying business processes.

Quite simply, e-business transforms the speed of business to Internet time. Today, with effective e-business functionality and corporate strategy, an organisation can work with all of its suppliers, customers, and sites in real time – Internet time.

To further clarify this idea a graphic representation of the global population that had Internet access worldwide as of 1999 has been given (Figure 3). Based on these figures it is seen that 171 million people worldwide had Internet access as of 1999. With South Africa belonging to the "other" sector we can see that it comprises only 4% of the world total. Nevertheless Internet usage in this sector is almost exclusively South African.

171 million people had Internet access as of June 1999 Increasing > 50% annually



2.2 Take a Leading Role

"The debate is raging on whether to lead and pick up the hassles later or whether to sit back and learn from the mistakes of the pioneers. The danger is if you jump in too late, you may never catch up with the early movers. The early mover advantage is that once you have critical mass and a good offering, customers have no desire to use a rival's service."

(Doug Franke, e-Business Director – PriceWaterhouse Coopers)

As a modern enterprise, ideas are one's most valuable asset. The ability to put those ideas into action can be an organisations most competitive weapon. And one must be able to do it quickly to do business in today's Internet-driven business model.

To become a leader in the marketplace – or maintain a leadership position – business must be able to change as quickly as the forces that drive the industry. Access to important information is also key to building or maintaining a leadership position. By keeping informed of the latest information inside and outside of the organisation, organisations are better poised to see the changes coming their way – and take advantage of them.

2.3 Keep Customers Satisfied

"Worldwide, retailers are investing heavily in IT and e-business to improve efficiencies, cut costs and build long term relationships with high value customers"

(Financial Mail - 01 October 1999)

Happy customers are profitable customers. In fact, AMR Research estimates that it costs 10 times more to acquire new customers than to retain the ones organisations already have. These days, customers want options. They want to buy products and services and manage their accounts on

their own time via the Internet. With the correct enterprise systems, it is easy to expand your customers' buying and servicing options with e-business functionality that gives them the options they demand.

With enterprise-wide access to important customer data, Customer Relationship Management (CRM) gives customer service representatives, and sales force, the tools they need to service accounts and provide customers with fast, accurate answers. It allows customers to check orders, inventory, pricing, and other key account information on their own time. Organisations can collaborate with their distributors on joint accounts to optimise delivery of products and services to customers.

Organisations can stay on top of the latest trends that are most important to their customers with a knowledge management solution that delivers this customised information right to their desktop. To ensure that production capacity is in line with the customer commitments, there are supply-chain applications that allow one to collaborate with suppliers and customers to develop accurate forecasts and deliver the right products when promised.

Keeping customers happy is critical to the success of any business. By leveraging the power of the Internet, organisations can expand their customers' buying and servicing options, and work with their suppliers to make sure that the organisation can deliver the right products at the right time.

2.4 Improve the Bottom Line

"Another success story is Internet equipment supplier Cisco. Almost 75% of Cisco's \$2,2bn revenue comes from doing business online. Its end to end e-commerce system means most transactions are not seen by a human being. As a result, Cisco has saved more than \$550m per year." (Financial Mail – 24 September 1999)

1 [

Part of being profitable is making sure that the firm can streamline costs while getting the best possible margin for their products and services.

Procuring the operating resources one needs to run the business can be one of a company's largest expenditures. In fact, some companies may spend as much as 35% of their annual revenues on equipment, supplies, and services for the business according to AMR research.

e-Procurement technology provides companies with an online tool to streamline their procurement process, effectively reducing the cycle time for procuring goods and services and cutting procurement costs in the process. By standardising a company's procurement services enterprisewide and working with preferred vendors, e-Procurement ensures that organisations are getting the negotiated price for goods and services, and that the company's employees get the resources they need when they need them. In the end, it can save as much as 6% of your annual procurement budget.

Through e-Business, one can empower employees and managers to manage their own data and processes with computer applications, which provide the tools they need to manage daily tasks. Employees can update their personal data and access benefit information without involving the Human Resource department, and managers can execute activities such as hiring, termination, and compensation adjustments using workflow functionality that routes the request through proper channels online. The result is increased accuracy and efficiency, less reliance on paper-based processes, and fewer headaches for employees.

Eliminating waste in the supply chain with accurate forecasts and scheduling also contributes to bottom-line savings. Using supply-chain planning applications, one can collaborate with

customers and suppliers via the Internet, ensuring full utilisation of production capacity and optimally deploying the company's resources.

2.5 Meet Your Goals

"Supply-chain automation has allowed Tesco, the biggest supermarket group in the UK, to shift its focus on improving relationships with customers. New offerings include loyalty card programmes, which reward frequent shoppers with a range of discounts and services, and free Internet access service, TescoNet. With its logistics system under control, Tesco has been able to reinvest productivity in lower prices. The group is planning to double its investments in price cuts this year to between \$250m and \$300m."

(Financial Mail – 01 October 1999)

"Making the plan, meeting the quota." These are paramount to a company's success, and ebusiness is key to achieving these goals. In order to grow in key markets, management must be able to make strategic decisions based on the right information, develop strong relationships with new and existing customers, and capitalise on new sales and distribution channels.

Management can develop and maintain strong relationships with customers by giving them more options to buy products and services and enabling them to directly manage their accounts. Companies can build an electronic storefront that draws existing customers to their site and allows the company to expand their merchandising channels to include new customers. Using technology applications, a company's customers can manage their accounts with them on their own time, at their own convenience. Customer Relationship Management (CRM) applications, lets an organisation identify new sales opportunities and capitalise on relationships with existing customers.

By leveraging the power of the Internet and CRM applications, companies can stay on top of the latest trends in their industry, both internal and external to their business. Companies will have instant access to the information that they need to make strategic decisions. The Internet Portal is the gateway to information one selects, including key performance indicators, industry-specific news, and even direct links to the applications management uses most often.

Meeting company's sales and growth objectives is a top priority for any business. e-Business gives management the tools they need to transform the organisation into a dynamic enterprise that can make strategic decisions and grow in key markets.

One of the most important ways e-business helps cut costs is by providing the employee with the information they need to do their jobs more efficiently. With access to up-to-date customer information, via CRM, sales and customer service teams can avoid costly customer service errors and maximise productivity. The company can stay on top of the financial data that drives company's revenue so that management are provided with a global view of such activities as sales, customer service, field service, and order fulfilment. Management can even measure the effectiveness of a specific promotion or pricing strategy using activity-based costing and activity-based management applications available.

2.6 Build Strong Partnerships

"No other business model highlights the need for tight integration across suppliers, manufacturers and distributors quite like the value chain. Delays in inventory tracking and management can ripple from the cash register all the way back to raw material production, creating inventory shortages at any stage of the value chain."

(Business Times – 26 September 1999)

Organisations are only as strong as the weakest link in their supply chain. Building - and maintaining – strong relationships with suppliers and distributors can give one an important competitive advantage. With e-business, one can evaluate the effectiveness of existing partnerships, build new relationships and collaborate over the Internet to streamline the supply chain.

e-Procurement helps organisations save money on the goods and services they need to run their business. Working in conjunction with a network service such as Ariba.com, management can establish networks of preferred suppliers that allow employees to buy the resources they need over the Internet. At the same time, management can ensure that they are doing business with preferred vendors and are receiving pre-negotiated prices.

Maintaining visibility with partners using knowledge management applications that allow partners to analyse their performance based on certain metrics they define. Management can also change business processes to accommodate new partners, quickly and easily. In addition, a supply-chain solution allows one to collaborate with customers and suppliers over the Internet. By including an organisation's suppliers as a constraint in their supply-chain planning and collaborating with them in real time, management can develop more accurate forecasts and optimise their organisation's production capacity.

Taking advantage of one's partners' strengths is essential to succeeding in today's integrated economy. Through effective e-business solutions one can build and maintain strategic partnerships that allow an organisation to optimise its most valuable relationships.

Faced with these formidable advantages outlined above, businesses are faced with an ominous reality – either join the e-business revolution or risk business extinction. The advent of e-business

represents the single biggest threat and opportunity on the business landscape at present. Companies who are getting it right are reaping the benefits of improved efficiency, new markets and better profitability.

It would be unwise to suggest that only the upstart dot.com companies are the only one's getting in on the e-business act. In the US and the EU, old established organisations are realising the possible potential and threat that e-business affords them. In fact most European businesses see ebusiness as a defensive strategy rather than means of attracting new markets (*Financial Mail - 03 December 1999*). The same sentiment is echoed by Johan Buys, the director of Ixchange's business management solutions division, Ability:

"The Internet is not a magic bullet to rags or riches, but a way to improve the process of doing business, as well as a way to expose a company to the global market. It is therefore also a way to make any organisation in any field redundant by enabling competitors (old or new) to undercut, outclass and generally steal customers in the wink of an eye. Depending on the industry, every company needs to be in the process of adjusting and re-engineering their business processes to ensure they can function in the age of global e-commerce."

(Johan Buys, Director Ixchange's Ability)

It is from here that I have attempted to adjust and re-engineer the automotive industry's business processes from the position of one of their automotive parts manufacturers to ensure that they can function in the age of global e-business. Following is a detailed business case compiled with the management of a South African filter manufacturer that not only gives insight into the industry as a whole but also in terms of one of the key players in the industry.

Section Three

AN**O**VERVIEW

OF THE

South A FRICAN A UTOMOTIVE INDUSTRY

A BUSINESS **C**ASE **A**NALYSIS

CHAPTER THREE

AUTOMOTIVE OVERVIEW

3.1 Introduction and Background

Within South Africa as well as elsewhere in the world, the Automotive Parts Industry is in a mature phase of development with volume growth being very slow. Within South Africa volume growth for the industry is only likely to come from increased penetration into export markets. At the same time however the global players in the industry are looking to expand into other sectors of the world economy.

Ultimately, the global players, specifically those from the East are importing into the highvolume/low-cost market. The threat that this poses is not altogether substantial across the board but does hold serious consequences if allowed to gain a foothold in the South African market.

By using a filter manufacturer as an example for this business case one can juxtapose the position of the majority of automotive manufacturers in the industry. In this case the filter manufacturer comprises of two products that it manufactures. At present it has a market share of around 70% for both products.

According to management within the organisation there are no other significant local manufacturers of automotive filtration product. The other local players tend to be niche players in the market providing a restricted product range. There are however a growing number of competitors who import product into the local market. According to management the strategic opportunity for the business lies in the development of export markets.

Although and isolated incident in terms of the automotive industry it is nevertheless a fair reflection of the players within the automotive parts industry, and thus parallels can be drawn across the board and examples of the industry can generally be used for the entire industry.

The target market of the majority of automotive manufacturers products are primarily the wholesale distributors of automotive components. The products are also branded in the livery of vehicle assembly plants for both their assembly lines and parts aftermarket.

3.2 Company Background

The company background described below is that of A.F.M. Holdings (Pty) Ltd of which A.F.M. Filters forms a division.

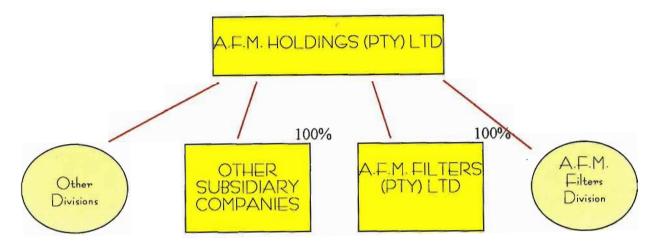
The company was formed in 1949 as a subsidiary of A.F.M. Manufacturing (Pty) Ltd, an Australian company. The major business of the company was then, and still is the manufacture and distribution of oil, air and fuel filters for the automotive industry.

In 1979 the Australian shareholder sold 100% of its interest in the company to the current shareholders. Although the shareholding of the company is based offshore, the company is in essence South African. The company does not form part of any South African listed conglomerate.

In 1980 the company recognised that it needed to have an association with a foreign filter company. In this regard, a licence agreement was entered into with Filterwerk Mann & Hummel of Germany, one of the largest filter manufacturing companies in the world. The licence agreement gave the company access to latest trends in filter technology as well as to export markets through the Mann & Hummel Group.

The division is known as A.F.M. Filters, a division of A.F.M. Holdings (Pty) Ltd. The division fronts to the market through a company known as A.F.M. Filters (Pty) Ltd, a wholly owned subsidiary of A.F.M. Holdings (Pty) Ltd. The relevant parts of the Group structure are shown below (Figure 4).





The division has its main manufacturing operation in Prospecton, Durban with distribution centres in Pinetown, Johannesburg and Cape Town. The division provides employment to approximately 800 employees.

The division's major brand is the A.F.M. brand, which is well recognised in the filtration aftermarket. In addition the division brands product in the livery of all the major vehicle assembly operations. All the assets and liabilities of the business are held within the A.F.M. Filters Division of A.F.M. Holdings (Pty) Ltd. A.F.M. Filters (Pty) Ltd does not have any assets or liabilities to speak of, nor does it trade as a principal. All transactions are carried out in terms of an agency agreement on behalf of the A.F.M. Filters Division of A.F.M. Holdings (Pty) Ltd.

The A.F.M. Filters Division distributes product throughout South Africa, Southern Africa, Europe, United States of America, South America, Australasia and the Far East. Our primary market is however South and Southern Africa.

3.3 Financial Status

A more detailed analysis of the financial status of the division will follow in a separate section. At the outset I must advise that none of the financial figures included either in this section or in subsequent sections are necessarily exact. They have been indexed to actual figures so as to reveal trends and to allow a proper analysis to be formed. The confidential nature of the figures does not allow the actual figures to be presented.

External turnover and profit before interest and tax (PBIT) is shown below for the financial years 1993 to 1999 (Table 1; Figures 5 and 6). PBIT has been chosen as opposed to profit before tax (PBT) as the interest charge is a nominal charge based on different criteria not necessarily linked to the funding requirements of the division. The interest is an internal charge paid to another division of A.F.M. Holdings (Pty) Ltd. The basis of the interest charge has also varied over the period making comparisons difficult.

Table 1: External Turnover and Profit Before Interest and Tax

	1993	1994	1995	1996	1997	1998	1999
External Turnover	100.0	113.1	134.9	161.4	172.9	201.3	212.9
PBIT	19.4	24.4	26.3	31.0	34.6	43.5	45.2

Figure 5: External Turnover

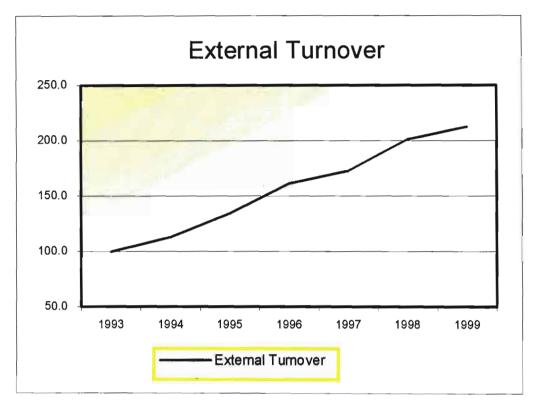
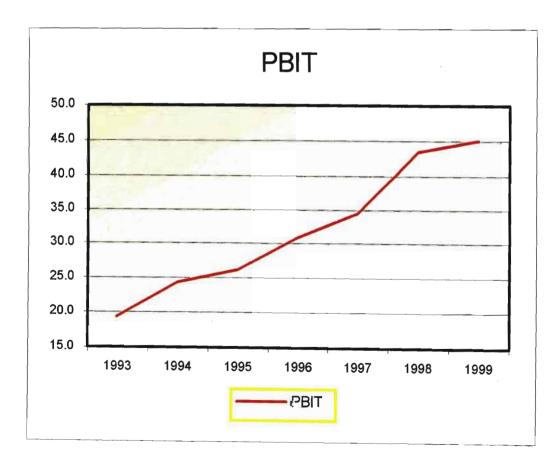


Figure 6: Profit before Interest and Tax



The seven-year review of external turnover and profit before interest and tax reveals a growth trend that has exceeded inflation over the period while at the same time maintaining margins. This growth has been achieved organically primarily as a result of increased penetration into export markets. Again this will be analysed in more detail in a subsequent section of this business plan.

The company is funded from shareholder loans and from the generation of cash from operations. The company is adequately funded and no further funding is sought at this stage.

CHAPTER FOUR

INDUSTRY & COMPETITION (I)

4.1 Industry Definition

The nature of the business in which the A.F.M. Filters Division operates is that of the manufacture and distribution of automotive filtration products. The business is not limited to distributing only products manufactured within our factories, but also the distribution of automotive filtration products sourced from other manufacturers both from within and outside South Africa. Likewise the distribution of their products is not only limited to South Africa, but encompasses markets throughout the world.

4.2 Size and Growth Rate of Industry

Although they market their products internationally, they are predominantly a South African business. The Company is a dominant player in the South African market, but a very small player globally. The size of the worldwide industry is therefore not really applicable and the comments that follow will relate primarily to the South African industry.

The size of the industry is directly linked to the size of the vehicle population. The vehicle population in South and Southern Africa has not grown and is unlikely to grow in the medium term in any significant way. New car sales figures back this statement up. The age profile of vehicles in the South African market is also ageing. This further complicates the industry as the range of product required to be provided into the market is growing all the time. Newer vehicles are using latest technology products, which must be provided, while at the same time the ageing vehicle population still needs to be serviced with older technology products. The result of this is smaller and smaller volumes of an ever growing range of product.

The estimated size of the automotive filtration industry is in the range R500 million to R1 billion. A.F.M. is the dominant player in this industry and as a result is able to lead the market in price setting and is therefore to a certain extent able to control their profitability through adjusting prices. Having said that though, as South Africa globalises their ability to dictate prices is becoming restricted. More and more their focus will move to cost control and process design to maintain profitability.

It is estimated that the industry employs approximately 2000 employees many of whom are unskilled or semi-skilled. The South African industry is a blend of both capital-intensive and labour-intensive operating techniques. In first world countries the trend is to move to capitalintensive production techniques and this trend is likely to be followed in South Africa as labour costs increase. The shift from labour to capital can be made over a period of time thereby reducing the impact of large capital projects on cash flow. This is made possible by many of the machines being of a modular nature.

The industry is not impacted by seasonality factors to any significant extent. Sales do however increase in the run up to the holiday season as consumers service their vehicles prior to embarking on their holidays. In addition, farmers will often service their agricultural equipment prior to the onset of the planting season. The seasonality factors are not however so significant as to materially impact on sales forecasting.

The industry is fortunately not significantly cyclical in nature, although sales do increase during economic upturns and do decrease during economic downturns. The extent of the variation is not however extreme. Consumers still need to service their vehicles during economic downturns although the decision to service may be temporarily delayed.

4.3 Stage of Development

The industry is in a mature stage of development with volume growth being very slow. Volume growth for the division is only likely to come from increased penetration into export markets. Profitability levels are good and cash flow is extremely positive. As alluded to earlier, A.F.M.'s ability to control this market will be eroded over time as international competitors enter the market. The only way to ensure their ongoing success is to focus on exports thereby increasing throughput resulting in a lower overhead cost per unit. In addition processes must be reviewed in an endeavour to reduce costs.

4.4 Environment Factors

4.4.1 Technological Change

The A.F.M. Filters Division is not at the forefront of developing new filtration products and processes. This is done by the large filter manufacturers often in conjunction with the major vehicle manufacturers. It is not their strategy to be leaders in the design of new products. They are followers and the entire strategy is centred around this.

The industry is certainly experiencing technological change. New vehicles are being introduced with longer and longer service intervals, which directly impacts on the sales aftermarket. Through the use of synthetic fibres the efficiency and life of a filter can be extended. A major international filter manufacturer has forecast that oil filters will only need to be replaced every 40,000 kms in 2010 compared to the current 10,000 - 15,000 kms. Likewise, air filters are forecast to be replaced every 80,000 kms compared to the current 40,000 kms. This will have a major impact on sales volumes although higher sales prices per unit will partially offset the impact on revenues.

Other technological changes include fuel injection systems that have resulted in the need for electronic fuel injection (EFI) filters to replace filters (nylon petrol) used with carburettor systems.

The A.F.M. Filters Division has already dealt with this technological change and is able to supply the market with this new generation filter.

Panel air filters have replaced plastic air and metal air filters, but here again A.F.M. are making the newer technology product. The constraint here for the business is that the design of new panel filters is becoming increasingly complex and more difficult for manufacturers like A.F.M. to copy.

New technology has allowed cabin air filters to be fitted to vehicles whereby air entering the cabin of the vehicle is filtered. Technology has developed to such an extent in this area that not only are the filters capable of removing dust, pollen and other particles, but are now also able to remove odours. At this stage volumes in South Africa are not significant to warrant the manufacture of such filters locally. The filters are sourced from other manufacturers outside of South Africa for A.F.M. to distribute in the local market.

Environmental concerns in developed nations is pushing filter manufacturers into the manufacture of metal free filters. Every spin-on filter replaced currently results in approximately 500 ml of concentrated dirty oil having to be disposed of. The use of metal free filters not enclosed in a can ensures that there is no dirty oil around the filter that needs to be disposed of when the filter is replaced. In addition metal end caps currently used need to be thoroughly degreased often with the use of environment unfriendly chemicals such as trichlorethylene. Metal free end caps do not need to be degreased as they will not have been manufactured in a metal pressing environment. The A.F.M. Filters Division does not currently manufacture any metal free filters but will need to follow this route to keep pace with current developments in automotive filtration.

4.4.2 Government Regulations and Incentives

Import duties do provide protection against imported product. The extent of these duties, however, is not prohibitive, currently 16%.

Export incentives are offered in terms of the motor industry development programme (MIDP) to assist both the vehicle manufacturers and the automotive component manufacturers to price product competitively in export markets. These incentives commenced in September 1995 and were scheduled to be phased out by 2002. The mid-term review of this programme recommended, and it has now been accepted, that the programme be phased out over a longer period ending in 2007. The export incentives are based on the net foreign currency earnings of the product exported. Currently the incentives amount to 37.5% of the net foreign currency earnings derived from exporting. (Net foreign currency earnings is defined as f.o.b. selling price less foreign currency utilised e.g. in importing raw material). The extension of the programme to 2007 will greatly assist our business to develop footholds in certain niche export markets.

CHAPTER FIVE

INDUSTRY & COMPETITION (II)

5.1 Competitors

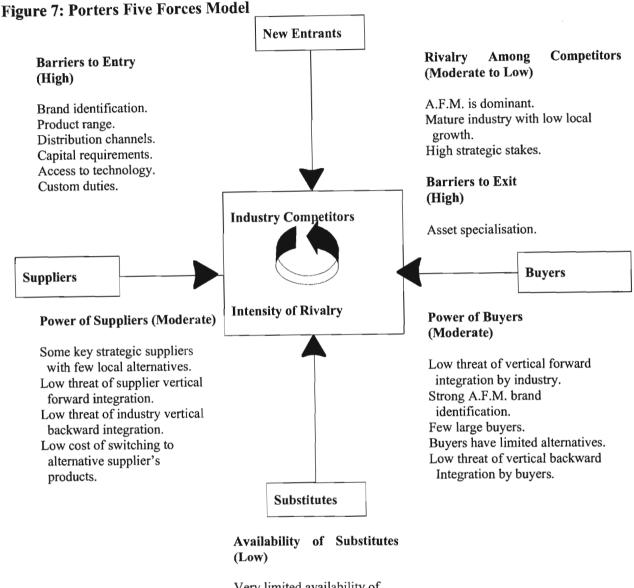
The main players in the passenger vehicle filtration market are A.F.M., Frit*, Unifil and a variety of imported filters. Frit forms part of the A.F.M. Holdings (Pty) Ltd group and therefore is not directly a threat. Although the A.F.M. and Frit brands do compete in the market place the group would not allow competitive activity between the two brands to the extent that overall group interests are harmed. The two Group brands enjoy approximately a 70% market share with the A.F.M. brand having the lion's share of this. Given the dominant position of the group, the other players tend to be niche players supplying only a limited range. Imported product is likely to be a bigger threat in future as international players enter our market.

The heavy-duty filtration market is a lot more competitive with the two group brands having a combined market share of 30% to 40%. The heavy-duty market is very different to the passenger vehicle market and requires a different marketing strategy, different distribution channels etc. The other big players in the heavy-duty market are Donaldson, Baldwins, Fleetguard and other imported product.

*Frit is a fictional name given for confidentiality purposes.

5.2 Structural Analysis Of The Automotive Filtration Industry

I have used Porter's Five-Forces model to analyse the industry. (Figure 7)



Very limited availability of substitutes to filters.

The threat of new entrants manufacturing in South Africa is moderate to low. High capital requirements in terms of plant & machinery would need to be invested; access would need to be gained to international filtration technology either in the form of a licence agreement or equity interest; the new entrant would have to break into the automotive parts distribution network which

is often tied into product exclusivity agreements; an extensive product range would be required to cover the entire market; and the new entrant would have to overcome strong brand identification.

New entrants not manufacturing in South Africa would not face the first two set backs but would still have to face the other hurdles mentioned. In addition customs duties, currently at 16%, would have to be borne. The dominant position of A.F.M. in the market place coupled with A.F.M.'s strong financial muscle would make it difficult for a new entrant to gain a foothold. New entrants would also have to consider the high losses, which would inevitably result if the new venture did not succeed primarily due to the specialist plant, & machinery that is required.

The power of buyers is rated as moderate. Although there are a few very large buyers that dominate the distribution channels, they currently have limited alternatives, which have the same strong brand identification and product range that A.F.M. has. It is considered unlikely that buyers would vertically backward integrate nor is it likely that the industry would vertically forward integrate, although with e-business this possibility can be seen as a threat.

The power of suppliers is also considered moderate. Although there are some key strategic suppliers with few local alternatives, the costs of switching to alternative suppliers from abroad is not high. The sourcing decision becomes an economic one. It is unlikely that suppliers would vertically forward integrate nor is it likely that the industry would vertically backward integrate.

The availability of substitutes to automotive filters is low. As discussed earlier in this business plan technological changes are extending service intervals, but the product is still in essence the same. The rivalry among competitors is considered to be moderate to low due to the dominant position A.F.M. enjoys.

The industry analysis leads me to conclude that the A.F.M. Filters Division is in a very strong position in the local market and should be able to continue in this dominant position provided the correct strategy is followed. The most likely threat to this will come from imported product and e-business ventures.

5.3 Strategic Opportunities

The A.F.M. Filters Division's strategic opportunities lie in the export market. The capital base, access to technology, technical expertise, human resources and management are all essentially well structured. The plant currently operates a 42-hour week with only certain lines working night shift. Where night shift is worked, the plant is still only being utilised for 84 hours a week. The plant therefore has plenty of available capacity that can be utilised to meet additional orders. It is unlikely, given the dominant position in the local market, that large additional orders can be obtained in the local market. It is therefore imperative that efforts be channelled in procuring further export orders or through e-business endeavours. A.F.M. can expect export markets to be fiercely competitive. However, the additional volumes should enable them to reduce overhead costs per unit and this, coupled with MIDP export incentives offered by the government, should assist them to be competitive.

CHAPTER SIX

PRODUCTS & MARKETS

6.1 **Product & Service Definition**

The A.F.M. Filters Division manufactures and distributes automotive filtration products in the form of oil, fuel, air and cabin-air filters for the passenger vehicle, light commercial vehicle and heavy-duty market.

6.2 Target Market Definition

The target market of A.F.M. branded product is primarily wholesale distributors of automotive components such as Femo, Robert Bosch and PIA, but also includes specialist retailers. Prices are differentiated based on whether the customer is a wholesale distributor, large retailer or spares outlet.

The target market for filters branded in the livery of vehicle assembly plants is obviously the vehicle assembly plants themselves as well as the vehicle dealerships. This is known as contract-original equipment (OE) and contract-parts and accessories (P& A) target market.

Exports into Africa tend to follow a similar pattern to the South African target market although contract business is not targeted in this market. Exports to markets outside of Africa are targeted primarily at other filter manufactures to supplement their range. In certain markets, particularly the United States, the target market includes import specialists.

6.3 **Points Of Difference**

As mentioned earlier in this business plan A.F.M. are a dominant player in this market. Their strengths lie in the quality product they manufacture, the broad product range offered, access to technology and the high level of brand identification which the product has, amongst other advantages. No other competitor is able to offer all of these attributes in the local market. Other local manufacturers tend to be niche players offering a limited range of product to a limited customer base. Some of the points of difference are highlighted in the matrix below (Table 2):

Table 2: Competitor Analysis and Advantage						
	A.F.M.	Competitors				
Target Market	Contract customers, wholesale parts distributors and large and medium parts retailers.	Contract customers, wholesale parts distributors and large and medium parts retailers.				
Products Offered	Broad range of automotive filtration products.	Niche players servicing certain parts of the market.				
Price	What the market will bear.	Will often try undercut A.F.M. price to buy market share.				
Quality	Good quality product that is manufactured to ISQ9000 and VDA6 quality standards.	Varies from comparable to poor.				
Delivery Time	Local customers can generally have product within a few days of ordering from our regional distribution centres.	Varies, but as most competitor product is imported, the lead- time can be substantial.				
Marketing	Excellent brand identity supported by a focused marketing effort.	Some better known brands but a lot of product that is sold purely on price.				
Warranty	Should our product fail and give rise to engine damage due to a defect in the product, we will repair at our expense.	Recourse to the supplier is unlikely on cheap imports.				

Table 2: Competitor Analysis and Advantage

6.4 Marketing & Sales Plan Highlights

6.4.1 The marketing message

I will discuss the marketing message in the traditional format of defining the marketing mix in terms of the "Four P's" – Product, Price, Place and Promotion.

The **product** description, qualities, warranties, brand name etc have already been discussed in previous parts of the business plan. Likewise has the **place** i.e. target market, distribution channels used etc. What remains is a discussion of **price** and **promotion**.

The **price** is set based on what the market will bear taking into account factory cost, other overheads, our desired margin, as well as competitive pricing. A separate list price is prepared for different target markets. A.F.M. have a standard list price for branded product, list prices for each contract customer eg. Toyota, VW etc, and list prices for each export customer. Pricing is differentiated within the brand target market through the use of volume and settlement discounts. For example, large wholesale distributors will be invoiced at list price less 8% for ordering at maximum volume breaks and in addition will receive a 20% settlement discount for settlement of the account within 30 days from date of statement. The settlement discount effectively combines traditional trade discounts with standard settlement discount terms. The reason for combining them and treating them as a settlement discount is that it acts as a major incentive for customers to meet credit terms.

Promotion is the 4th P and is dealt with under marketing strategy below.

6.4.2 Marketing strategy

<u>**Promotion**</u> of the product to potential customers as well as existing customers is done through a co-ordinated marketing effort. This involves, inter-alia, flighting of advertisements on national

television, flighting of radio commercials on regional and national stations, advertising in magazines, competitions to incentivise over the counter salesman to promote the product, new product bulletins, quarterly A.F.M. newsletters, point of sale promotional material etc. This marketing strategy is developed in-house within the marketing department in conjunction with an advertising agency. All promotions are evaluated to ensure that maximum exposure is gained for the money spent.

6.4.3 Tactical execution

Aside from marketing staff based at corporate head office dealing with promotions, logistics, administration etc, A.F.M. also have regional distribution centres in Durban, Johannesburg and Cape Town. Customers place orders on the regional distribution centres from where goods are despatched from inventory held on site to customers within a few days of receipt of order. Sales representatives are based at these distribution centres whose function is to visit existing customers, search for new customers and generally gather market information. Telesales clerks are based at the distribution centres to take customer orders.

CHAPTER SEVEN

OPERATIONS & MANAGEMENT & ORGANISATION

7.1 **Operations**

7.1.1 Facilities & equipment

The A.F.M. Group owns all the properties, which the A.F.M. Filters Division occupies in the course of carrying on its business with the exception of the Cape Town branch. The Cape Town branch is rented. This includes the factories and offices in Prospecton, Durban, and the distribution centres in Pinetown and Johannesburg. Despite the properties being owned by the Group a market related rental is charged by the Group to the A.F.M. Filters Division to ensure products are costed appropriately and that management is aware of the cost of floor space and thereby is encouraged to use it efficiently.

An extensive investment has been made in the plant & equipment infrastructure to ensure they have sufficient capacity to meet market demand in a cost-effective manner whilst making a product of international standard. The replacement value of plant & equipment is in excess of R100 million. All the plant & equipment is owned by the division and is unencumbered. Most of the equipment is specific to the filter manufacturing industry. The equipment has been sourced mainly from specialist equipment suppliers whilst some has been developed in-house.

7.1.2 Production

Air, oil & fuel filters are produced in the A.F.M. factories to meet a broad range of vehicle requirements ranging from the smallest passenger vehicle to filters for large commercial vehicles. The production processes for the different filters vary, but they all essentially involve the use of filtration media, be it filter paper or felt. The filter paper is imported in jumbo rolls, slit to size using the internal slitting facility, and then pleated. The pleated paper is assembled into a filter in a variety of ways depending upon the type of filter that is being made. For example, panel air filters are assembled by inserting the pleated paper into a mould containing polyurethane, whereas spin-on oil filters involve wrapping pleated paper around a metal centre tube and inserting it between two end caps – this is known as a filter element which is in turn inserted into a metal can along with other metal components such as relief valves, by-pass valves, tapping plates etc.

The process can be either labour intensive or capital intensive. A.F.M. use a mixture of both labour and capital intensive processes but are gradually moving towards capital-intensive processes as South African labour rates increase and make this option more cost effective.

Most processes are performed in-house but some non-core processes are outsourced. For example, they use a facility in a nearby township, which provides employment to disabled members of the community to assembly relief valves used in spin-on filters. A.F.M. have provided the necessary equipment and transport components to and collect assembled relief valves from the facility on a daily basis. This assists the company by outsourcing a fairly mundane task and at the same time provides employment to a community that otherwise may not have had a source of income.

Production demand is forecast by means of a fairly sophisticated sales forecasting model. As mentioned earlier, demand is not particularly seasonal nor is it subject to dramatic variations due to economic cycles. Forecasting is therefore reasonably simple. The sales forecast is downloaded through MRP (material requirements planning) production planning process to develop a production plan taking into account plant capacity. The production plan is prepared for a 7-week period, of which the first three weeks are fixed. Forecast demand beyond the 7-week plan is also shown to give management and suppliers a longer-range view of factory loading.

Quality standards in the motor industry are extremely high. In addition to being ISO9000 accredited A.F.M. are also an A rated VDA6 supplier to the vehicle assembly plants. An A VDA6 rating is a quality standard specifically required by the motor assembly plants. Periodic audits are conducted by the motor assembly plants to ensure this quality standard is maintained. A new requirement of the motor assembly plants is a QS 9000 accreditation. We anticipate achieving this by December 1999.

7.1.3 Inventory Control

Using the seven-week production schedule referred to in the previous topic, orders are placed on suppliers for the following weeks production. The suppliers are instructed to deliver during the current week the materials required for the following weeks production. The suppliers receive a vendor schedule, which indicates the requirements in the next three weeks, which are fixed, and a view of what they will require in the four weeks following that, which can change, as well as a view beyond seven weeks. This helps the suppliers to plan their production to ensure they meet the orders during the fixed three-week period.

Imported suppliers cannot obviously be dealt with in this manner due to the long lead times. Imported supplies therefore tend to be ordered based on historical usage.

Using the above technique should theoretically never have more than 10 days raw material stock on hand of goods which have been ordered from local suppliers. A.F.M. have managed to achieve this with most suppliers. Continuing efforts are being made to drive stock even lower.

Because pressed components are made in-house, A.F.M. have to carry sufficient stock of pressed components to meet assembly line requirements. Pressed components once made are stored in an internal component store until required by the assembly lines. They are currently investigating the possibility of using a Kanban stock control and replenishment system for pressed components. This system requires one to establish the ideal number of component baskets there should be on hand at any point in time of a particular pressed component. As a basket of components is used, this triggers an order on the press shop to make another basket. This system has been seen to work quite well in other factories and should theoretically be suited to the press shop.

As mentioned in the proceeding topic, product is made based on a sales forecast. A model stock holding for each part number has been set up in the sales forecasting software. Based on forecast sales and model stock holding, the sales forecasting software creates a demand on the factory. The safety stock for each part number has been set by the marketing department taking into account the demand for each product and lead times on the factory. In order to reduce inventories, model stock has to be reduced. In order to do this, one has to have confidence in the accuracy of the sales forecast as well as the ability of the factory to produce to schedule. Over time, through experience, the sales forecasting accuracy has improved as has the ability of the factory to meet schedule. This will enable them to gradually reduce model stock holding. Currently the finished goods stocks represent approximately 30 selling days.

7.2 Supply & Distribution

Their policy is not to single source raw materials from suppliers where possible. Approved suppliers are called to quote on an annual basis. The supplier with the lowest quote generally is awarded 75% of the business whilst the supplier with the second lowest quote is awarded 25% of the business. It is important to note that only approved suppliers are allowed to quote. In order to be approved, suppliers must satisfy A.F.M. that they are able to consistently meet the demand as well as quality requirements.

Finished product is despatched from the factories to the distribution centres in Pinetown and Johannesburg. The Cape Town distribution centre is replenished on a periodic basis from the Pinetown warehouse. Customer orders are placed on the regional distribution centres who pick and despatch stock directly to customers using a combination of both A.F.M. owned vehicles as well as hired vehicles. They are gradually moving to hired vehicles including a driver as this has been found to be more cost effective. From a security point of view this also ensures that drivers can be rotated or even removed from delivering our stock altogether if necessary.

7.3 The Company and its Culture

The company has a conservative culture that fits the needs of the shareholders. There is very little flamboyance or expenditure on luxuries despite the highly successful nature of the business. Expenditure is functional.

The company employs approximately 800 employees most of which are factory floor workers. About 200 office staff are employed. Policies and procedures are described in a manual, which is handed to senior management to ensure they are adhered to. This ensures consistency and fairness in dealing with employees.

Most factory employees are unionised and wages are negotiated with the Union. Salaried employees are awarded annual increases based on performance. Wages and salaries are both paid monthly directly into employees' bank accounts.

CHAPTER EIGHT

FINANCIAL

8.1 Introduction

The shareholders require the division to return at least a constant US\$ denominated profit before interest and tax (PBIT). This is the minimum requirement. Obviously a growing US\$ denominated PBIT is desirable. This is a tricky task for management as management have no control over a vital variable, the US\$/Rand exchange rate. To translate the requirement into South African currency, management have forecast, with the assistance of experts, the expected US\$/Rand exchange rate over the next few years. This exchange rate has been applied to the Dollar denominated requirement to provide the Rand PBIT requirement.

Non-intervention profit forecasts for a 10 year period were developed based on management's expectation of revenues and expenditures. The resultant PBIT was reviewed and compared to the shareholder requirement. A gap was identified and management were tasked with producing plans which would enable the gap to be closed. The plans were quantified and timing allocated. The impact of these interventions were then input into the financial model to determine whether the gap had been sufficiently closed. Fortunately management were largely able to close the gap with interventions over the next 3 years. Each year this is reviewed and further interventions are considered. No interventions are considered beyond 3 years due to the increasing inaccuracy of the forecast. The projections that follow are after the interventions of management. Again I must say that all figures presented have been indexed but still allow relationships and trends to be identified.

The forecasts that follow have been established annually. It was not considered meaningful to produce monthly forecasts as the business is not significantly cyclical nor is it significantly impacted by seasonal demand. Annual projections are therefore more than adequate for these dissertation purposes. Similarly, annual cash flow projections have only been prepared.

8.2 Sales Projections

Sales in units have been projected forward for the next few years by product by customer grouping. To simplify the schedules included in this business plan I have summarised these projections by customer grouping in total and by product in total (Table 3).

Table 3: Sales Forecasts

FORECAST SALES (UNITS)

for the years ending 30 June 2000, 2001 & 2002

	Base			
BY CUSTOMER GROUPING	Year	2000	2001	2002
				500
Brand	519	516	520	523
Contract	228	223	223	220
Export				
Africa	76	76	76	76
Europe	116	140	162	169
North America	52	64	72	76
Other	9	9	10	10
TOTAL	1,000	1,028	1,064	1,074
	Base			
BY PRODUCT	Year	2000	2001	2002
Spin-on	495	512	529	534
Nylon Petrol	168	174	177	179
EFI	20	19	20	20
Metal Air	6	6	6	6
Plastic Air	39	38	38	38
Heavy Duty	48	48	48	48
Panel Foam	58	60	62	63
Panel Frite	17	18	18	18
Felt	31	31	31	30
Cartridge	98	100	114	116
Sundry	22	22	22	22
Total	1,000	1028	1064	1074

Due to the relatively weak economic environment that has prevailed in South Africa over the last year it is not anticipated that there will be much growth in the local market during the year ending 30 June 2000. Thereafter, A.F.M. anticipate less than 1% growth in units per year for the years ending 30 June 2001 and 2002 for brand and fairly stagnant unit sales to contract customers.

As mentioned a few times in this business plan, exports are considered to be where the future growth lies. In this regard sales to both Europe and North America should allow total unit sales to grow by 2.8% during the year ended 30 June 2000, 3.5% during the year ending 30 June 2001 and 0.9% during the year ending 30 June 2002.

The products that are likely to show the biggest gains over the 3 year period include spin-on, panel and cartridge. Most of this growth in product demand is to come from the export market.

To ensure targets of increasing sales into export markets are achieved they have recently employed an additional employee in the export department. In addition employees will be sent to the A.F.M. licensor in Germany for 2 week stretches on an on-going basis over the next 6 months to identify part numbers which the licensor is outsourcing which can be made by the A.F.M. Division. This programme has already achieved considerable success and much is expected of it. Concerted efforts are also being made in Australasia where significant opportunities exist.

Section Four

FINDINGS, OBSERVATIONS AND ISSUES WITHIN

The Automotive Industry

CHAPTER NINE

FINDINGS, OBSERVATIONS AND ISSUES

9.1 Introduction

Based on the business case devised for the Automotive Filter Manufacturer, it was noted that on further research a number of issues within the company had developed over the years and were synonymous with the industry as a whole. In the following section of this dissertation these issues affecting the A.F.M. Group as well as other industry players will be effectively dealt with and solutions and recommendations given. In some circumstances the findings and observations will not be specific just to the automotive industry but also to global business as well.

9.2 Findings And Observations Of A.F.M. Within The Automotive Industry

9.2.1 What we know at present

The Internet and e-Business is here to stay and, if companies want to maintain competitive advantage, it cannot be ignored. The International Data Corporation forecasts that within the manufacturing industry, Business-to-Business (B2B) e-commerce revenue by 2002 will be in the region of \$331 Billion. Whether we appreciate it or not, e-business is the business model of the future. Internet traffic is doubling every 100 days with total bandwidth increasing 300% annually. On top of this Internet business is doubling annually.

The graph below illustrates the above point clearly (Figure 8):

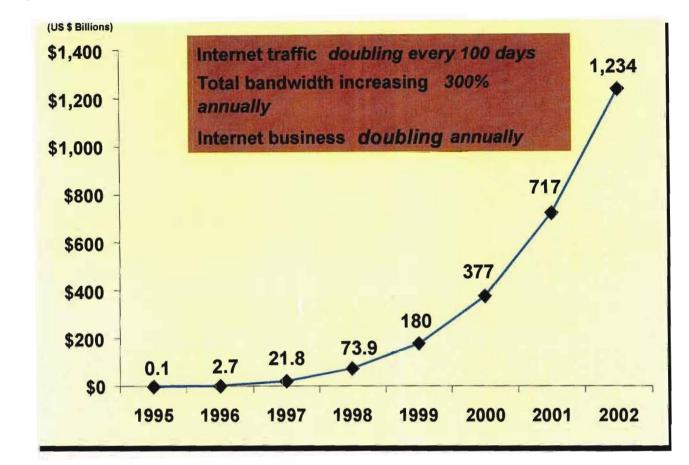


Figure 8: Internet Business Increases

Source: "The Real Numbers behind 'Net Profits 1998", Copyright 1998, ActivMedia, Inc., research @activmedia.com,

 Business will market and sell their products and services via the World Wide Web (WWW).

There is so much evidence in this regard, which is supported by a number of research agencies such as Gartner Group.

"16 million domain names registered with 9,5 million being dot coms." "In Oct 1999, of the 46 million adult residents in the UK, 12.5 million, or 27% of the population, used the Internet."

"7.3 billion commercial e-mail messages sent each day in the U.S."

"Online purchases in B2C market > \$2 trillion by 2005."

"The Internet is the fastest technology accepted ever."

(Gartner Group)

In order to support these quotes I have added a number of graphics clearly supporting the growth of the Internet globally and locally.

The graphic below (Figure 9) represents the Internet Users by Geographic Area for the period 1999 – 2005. Although very small South Africa is clearly depicted and is on a par with a large number of developed countries and has a good prospect of Internet growth. The rest of Africa has a minute share of Internet Users yet has a 47% growth rate predicted which will be favourable for our recommendation later.

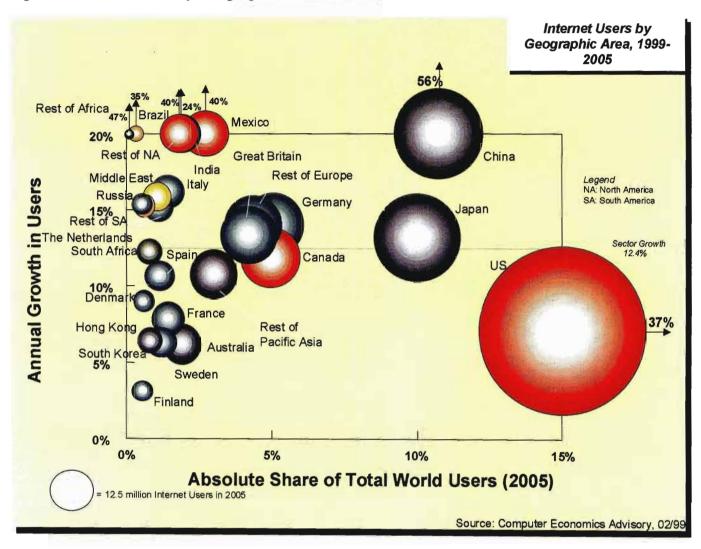


Figure 9: Internet Users by Geographic Area 1999-2005

There will be electronic virtual market places (Xchanges).

If one has read reports of the recent Daimler-Chrysler/General Motors/Ford Auto Xchange, it will be clear to all that massive strides have been made in this regard. Whilst the founding members or participants are in fierce competition with one another, economic sense prevailed in the formulation of this massive Auto Xchange. As an aside, the Automotive industry worldwide has made some of the greatest strides in adopting e-business technology.

All business transactions will be conducted over the World Wide Web due to the speed and efficiency that it incorporates.

More than any other business model, the real positive that emerges from e-commerce is the fact that the cost savings that are generated due to the electronic process far outweighs any other means of transacting.

Industry collaboration

The Collaboration segment is defined as sharing information and collaborating on decisions within or between stakeholders utilising Internet Technologies. Examples of collaboration would include such things as new product development and collaboration with other research and development organisations. Collaboration regarding industry market research data as well as best practices sharing amongst the players in the industry. There will be Internet enabled communication and conferencing and on-line policies and procedures for employees of the organisations.

Development of new players in the market (dot.com companies).

Globalisation is eliminating physical barriers and creating new threats and opportunities. The barriers to entering international markets have declined and the emergence of new entrants increases competition for existing local businesses.

"It only takes one leader to identify a product that outperforms the new market's local offering—by undercutting price or over-delivering service and launch into the industry." (Source: Condon, Cliff. "Wired Firms Push Cross-Border Trade." Forrester Report)

Importance of brand differentiation.

With the inception of the World Wide Web and subsequent trading and transacting over the web, customers are able to see and differentiate products on price but not quality. A result of this is that brand recognition becomes paramount and one has seen the massive promotional spend that US companies have embarked upon to establish their brands in the face of opposition products who are using the WWW as an avenue to break into new markets.

BUT

African situation needs to be understood – "African connectivity."

Not for one instance should the African situation be misunderstood or dismissed. Whether we accept it or not, Africa and its people are different based on culture and technology. To embark upon any strategy in any industry in South Africa or Africa, the underlying message is that the customer is critical to your existence and thus their needs need to be met and acted upon in a way that it is understood clearly and effectively.

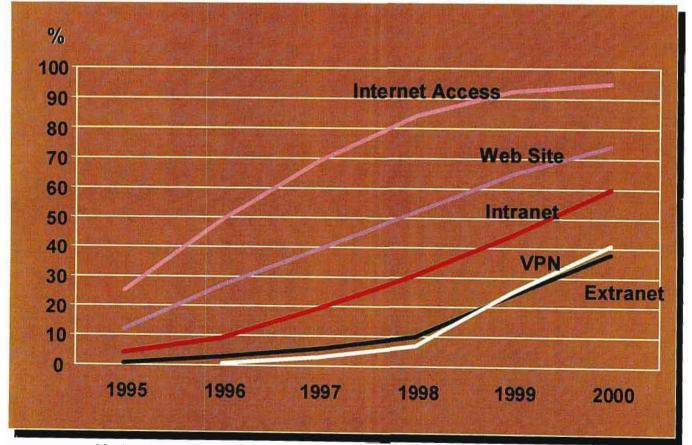
Furthermore analysis regarding the amount of people in South Africa who have access to the Internet as well as the potential for a possible increase needs to be established. Another issue is the bandwidth potential regarding South Africa. As far as recent developments are concerned, Telkom has come under heavy criticism – and rightly so, for their monopolistic attitude in terms of allowing bandwidth to increase in South Africa. Latest developments are that the SA Government have allowed for increased bandwidth, which should open the way for increased Internet traffic.

A graphic representation regarding Internet usage of companies within South Africa (Figure 10) as well as other forms of technological capability has been provided and adds further to our findings in this regard. What it does clearly predict is that Business-2-Business models will be far more lucrative in the future than its Business-2-Consumer counterpart.

Following on from the above overall findings it is accepted that we as a country and A.F.M. as an automotive filter manufacturer in this South African economy cannot ignore the threat of e-business or ignore the opportunity that is presenting itself to us.

Figure 10: South African Company Internet Connectivity





Various BMI-T Surveys : large and medium SA companies

Above all else, the question remains and that is <u>WHEN</u> and <u>HOW</u>, not <u>IF</u>, A.F.M. and the Automotive Parts Industry adopt e-business.

9.2.2 Strategic Issues

Within the entire e-strategy formulation, macro and micro issues affecting the industry as a whole and A.F.M. respectively need to be understood and effectively addressed. Based on my interviews and research a number of issues were raised:

• Changing market dynamics globally and locally (especially automotive industry).

As mentioned previously the automotive industry worldwide is embarking on a massive consolidation centring on e-business and its advantages. The recent Daimler-Chrysler/General Motors/Ford Motor Company Xchange and virtual market place is an

example of this consolidation.

Following on from the global trends, industries, through the emergence of e-business, are realising how inefficient their industries are operating. The fact that their supply chains are unacceptably long and players within the supply chain are not adding value increases costs unnecessarily. The implications of accepting e-business are made blatantly obvious and raises the issue which Michael Porter mentioned:

"Organisations and products don't compete – supply chains do!"

(Michael Porter)

9.2.3 Role of Middlemen (Intermediaries)

Disintermediation is bypassing traditional channel partners to offer products and services direct to consumers.

Within the majority of industries and supply chains, middlemen or agents are involved in the supply chain process. Over the years, their roles have changed from that of an entity that added value in terms of distribution and buying power, to that of large buying groups that in a number of circumstances merely mark up prices without adding any value to the customer. This can be clearly seen in the automotive parts industry and I have illustrated these issues within the industry which are prevalent.

- The automotive manufacturers (OEMs) have an enormous amount of power within their organisations with regard to their Parts and Accessories departments. At present the A.F.M. group supply the parts to the respective departments/service centres through the auto manufacturers who add on a margin. In effect the customer has to pay more for the product that is produced. A.F.M. cannot therefore gain the increased profit margin that would become available if they were able to supply direct to the respective departments.
- The buying groups hold a tremendous amount of power within the retail market of who buys what product. Ultimately it is the retailer who deals directly with the customer that makes the decision but these affiliated retailers are generally bound by the fact that the large buying groups dictate which products are to be made available to them.
- An understanding of the value chain needs to be addressed so as to ascertain the value that a number of the players in the supply chain add to the final product. How much value do the buying groups add, and to what degree can this be copied by A.F.M. and other manufacturers?

9.2.4 New Entrants

The Internet opens channels of communication and enables penetration of new markets around the world.

"In cyberspace there is no distance between two points. There's a whole different kind of physical geography."

(Source: Condon, Cliff. "Wired Firms Push Cross-Border Trade." Forrester Report)

Another issue would be the threat of parallel imports from the Asian markets. In effect these imports are of a lower quality and cheaper price but fulfil the high volume/low cost segment of the market. To what degree does the buying groups partake in imports and does their strategies in the future foresee and increase in this market. Upon further investigation the main culprits of parallel importation were the franchised members of the buying groups who were dissatisfied with the margins that the buying groups were adding to the gross margin.

9.2.5 Collaboration Within The Industry

One has found that in order to generate change within an industry, it is imperative that one makes that change from a position of strength. Collaboration between suppliers, buyers and strategic alliances all aid that process. Ultimately in order to take advantage of the enormous offerings that e-business can deliver there must be some form of alliance with industry players. This idea of collaboration will become increasingly obvious as the e-strategy unfolds.

9.2.6 Organisation and Industry Readiness

Within any organisation, one of the biggest obstacles to successful implementation is the resistance to change of the people within the organisation. Executive buy-in is critical to success and it is worth noting that on a number of occasions top management fail to grasp the implications of the advantages of what technology has to offer.

As an appendix to this dissertation, an example of an e-business readiness assessment was conducted with a number of players in the market. What this did was give an impression of which strategy could be safely followed and which could be seen to be realistic in the long term.

9.2.7 Improve Efficiencies

Solutions that do not streamline supply chain processes, integrate, automate, and allow for flexibility will not sustain value. e-Business can allow for supply chains to be streamlined and thus add sustainable value through faster and more efficient electronic processes and order fulfilment.

9.2.8 Customer Relationship Management (CRM)

In terms of e-commerce, I could devote an entire dissertation to the subject of CRM.

"Whether you are a dot.com selling chariots or Chardonnay, or a stalwart selling steel, the relentless passion for doing the right things for customers should become part of the fabric of the organisation. Growing a business in the face of me-too products, services and prices, rising customer expectations, falling customer retention rates and rising customer acquisition costs is a major challenge. Therefore, it is mission critical that managers implement innovative strategies centred on creating customer value."

(The Future – Marketing in South Africa, Volume 1, No.5, 2000)

The essence of all business whether electronic or not, is sales and sales. Knowledge about the customer is paramount to effective business operations. In the case of the Automotive Parts Industry, the "customer" of the manufacturers has become blurred and access to this customer, or rather access to customer information, is the key issue behind this entire business case.

The A.F.M. group needs to establish who in effect their customer is or who their target market is and focus on them. At present the group has a wide variety of customers, which include the OEM's, the buying groups, the retailers and in some instances the end-users of the product. The differentiation and the diversification of the customer are profound and before an effective solution is found, e-business implementation and the distribution processes behind it, will be difficult. Following is a few examples of how CRM will allow the organisations of the automotive industry to manage the information regarding their customers more efficiently.

Customer self-service

Customers want to be able to make decisions on their own accord without too much effort or interference. By allowing customers to make informed decisions regarding the procurement of products, CRM gives the opportunity for organisations to allow customers to make their own decisions.

Customer personalisation

More now than ever before, customers want to feel special. The personalisation of service for customers has been bandied about for years and few companies can get it right. The buying experience or service for a customer must be unique and special for all customers so as to maintain that customers devotion.

Employee self-service

The ability to empower staff into making detailed and informed decisions is paramount to any organisation. Whether it is customer information via sales analyses, or internal company organisation regarding Human Resources and Accounts via an Intranet, knowledge is key to any organisation and that knowledge needs to be effectively disseminated throughout the organisation to those who need it for their information.

Reduce costs

e-Business is concerned about cost reduction. Many promoters of e-commerce applications sell their products on the premise that it will introduce the company to new markets and profit will increase accordingly. Although not entirely true, some companies are introduced to new markets but these tend to be the dot.com start-ups. Mature and saturated industries such as the automotive industry will hardly create new markets for themselves. The fact that A.F.M hold a 70% market share at present is impressive in itself, and it is highly unlikely for this market share to increase dramatically based on e-commerce.

On a personal note I believe that the majority of Information Technology organisations are selling a pipe dream by allowing businessmen to believe their profits will soar if they enhance e-business. e-Business is about cost reduction and the improvement of business efficiencies, in particular supply chains and distribution of products.

Procurement

e-Procurement is the buying and procuring of products/services from a supplier. Whether one is a manufacturer or the end-user of a product one will always procure. By building up relationships via the Internet and CRM applications, buyers can realise the advantages, which the Internet affords them. These are all outlined in the overview of e-business in Section 2 of this dissertation.

Transactions

By embarking on e-business, the normal functions of transacting such as order confirmation and order-tracking can be taken over electronically. Applications today allow for as little human error as possible. An example of an effective order process would be the Amazon.com website ordering process.

I choose which book I want and view the price immediately as well as view the book that I wish to purchase. I type in where I want the book delivered and can select how urgently I need the book and how much it will cost me. I punch in my credit card details and a security

check is conducted on my credit card. I have place my order and almost instantaneously I have received an order confirmation as well as an order tracking number that can be accessed at any stage.

All of the above has been conducted without any human interference and my transacting process has been effortless and without peer anywhere. This is the enormous saving that e-business can give to an organisation.

9.3 Position Of Strength

A.F.M (Pty) Ltd, are fortunate in the fact that they have the following characteristics or attributes within their two companies, which give them a position of strength within the industry.

Solid electronic backbone in JDEdwards

The fact that the company have an established and highly effective technology system in JD Edwards makes it easier to embark upon e-business ventures, due to the accessibility that is available from "OneWorld" applications. Those companies that do not have a recognised technology system can find it more expensive to implement their e-business strategies in the future due to the necessary upgrades that are needed.

Senior management commitment

On too many occasions, organisations have failed to implement effective change due to the lack of senior management buy-in. In the case of A.F.M, the change has been initiated from senior management and is being driven from an executive level down. Nevertheless there will still have to be internal change management procedures and training and re-skilling undertaken on order to effectively adapt to the new e-business culture.

Recognised brand

A.F.M. Holdings, have the two leading brands in the automotive filter industry. When advertised on the Internet, the brand name and dominance should be able to withstand the

rigours of Internet advertising. Brand recognition is everything on the Internet especially as prices are generally transparent. The saying goes that within the Internet age – "switching brands is only a mouse click away." This factor alone is one of the biggest reasons why organisations fear advertising and transactions on the Internet as their brand identification will be tested to the full.

Market share and dominance

Carrying on from the previous point, A.F.M. Holdings' two products have a joint market dominance of 70% of the total automotive filter market. This dominance makes it possible to implement meaningful change within the industry, which will be elaborated upon later in the dissertation but will go a long way in bringing about real effective change within the industry.

Product range and availability

Within the South African automotive market, the high entry levels discussed in the previous business plan on the automotive market for A.F.M., means that competition from abroad will be unlikely unless those competitors can match the huge product range and depth of product range for the SA market. As mentioned previously, each country's market is unique and local company's are geared towards servicing their particular markets. Ultimately, if competing companies are to enter into the SA market, they will wish to operate in the high volume products. This is the biggest threat to A.F.M. and parallel imports play a large role in the preferred choice of strategy, which will be recommended later.

B2B market situation (not B2C)

The fact remains that the real growth in e-business will be in the Business-to-Business (B2B) market. The fact that A.F.M. operates within this context already, allows them to gain the maximum benefit of B2B with regards to e-business through greater profit potential and greater efficiencies.

9.4 However There Are Risks...

As in all new ventures there are risks and concerns for all organisations especially in the automotive industry due to the enormous market dynamics at play. The following issues need to be clarified and understood before a detailed strategy can be presented and recommended

New initiative ("bleeding edge" technology)

On far too many occasions, organisations adopt technological advancement and improvement at the expense or lack of improvement in other sectors of their organisations. An example of this cancer is evidenced in the South African Banking sector.

SA Banks are amongst the leaders in e-business and electronic banking throughout the world. One of the biggest advantages of South Africa is its strong banking sector. However, one can find almost no person in South Africa, who is satisfied with the service they receive from their bank. The case in point is that the advancement in technology has far outstripped their back-office efficiencies and procedures and has made the organisation worse off than before. Ultimately what one is faced with is "bleeding-edge" technology – the organisation is not geared for the business change.

High expectation of financial returns

As mentioned before, organisations are duped into believing that e-commerce will realise their organisation untold profits and increased market share when in effect, the real advantage comes in the form of cost reduction and operational efficiency. What is noticeable however in the long term is that the "bottom line" of any organisation who successfully implements an effective e-strategy will be greatly improved.

A clear indication of the value of e-business will be realised when other organisations that fail to transform themselves and adopt the new business model find their market share diminishing and their general costs increasing.

Disruption of current industry balance

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As far as any of the other so-called risks are concerned, the fact that the industry balance can be disrupted is not only prevalent in this strategy but is more than likely to occur in all industries. On numerous occasions strategies cannot be implemented due to the fundamental change that is needed and the risk or fear factor, which is prevalent, overrides the potential benefits that can be attained for the companies in the industry.

Based on this it is my belief that any strategy that is put forward must be workable and reasonable in terms of its impact on the industry as a whole. In short, a win-win situation must be guaranteed for all potential players otherwise the strategy cannot be implemented and potential failings could be dramatically exposed.

Organisations may be risk averse

In many mature industries, organisations have become comfortable in their position within the industry. Opportunities are generally ignored if there is a possibility that fundamental change is required in favour of the status quo. Ultimately, organisations which are risk averse, may have a smaller window of opportunity for gaining strategic advantage due to their reaction time and the fact that the organisations are not nimble and dynamic enough to take advantage of events.

Based on all of these initial findings, which will act as the base of our potential strategies, one thing remains glaringly obvious from an overall position...

9.5 A.F.M. Holdings Cannot Afford to do Nothing

Based on our initial findings one has realised that e-business brings with it the element of change. e-Business makes inefficiency glaringly obvious, it doesn't allow for non-value added service to enter into the supply chain and it makes the customer king once again.

What therefore are the options for A.F.M and the rest of the automotive industry?

9.6 Options for A.F.M. Holdings

What came out of my research into the automotive industry, and the fears and threats that were prevalent within it, was that A.F.M. Holdings could embark upon two forms of strategy. If one were to draw a scale representing the impact that a particular strategy would have on the industry then we would be able to have to represent our strategy within two poles along that scale. Below is a depiction of this scale for ease of reference and understanding (Figure 11):

Figure 11: e-Strategy Dynamics Continuun

SCALE/REPRESENTATION OF e-STRATEGY INFLUENCE ON AUTOMOTIVE PARTS INDUSTRY

Non-disruptive

N O N

D

I S R U P T I V E

The strategy that would allow for a non-disruptive impact on the automotive industry would in fact focus on cost reduction and efficiency improvement exclusively.

Radical

The radical approach by A.F.M. would involve:

- A focus on new market opportunities within the Automotive Industry.
- A significant change in the structure of the industry and the distribution channels as well as ordering procedures.
- Cost reduction within the organisation as well as the industry.

 Defensive tactics in as much as A.F.M. and the other manufacturers increase competitor entry levels as far as foreign importation of products is concerned.

Based on the high level options that are available to A.F.M. and the rest of industry the overriding factor for any strategy is the need to determine who e-business brings value to in terms of the industry and the organisation. I have identified three possible sectors that the strategy needs to deliver in terms of value and they are as follows:

- a) Customers
- b) Employees
- c) Other stakeholders

9.7 Increasing Value to the Customer

Any e-strategy needs to ensure the following:

- An increase in customer loyalty
- An increase in profitability for the organisation
- A decrease in the time to market for new products
- Products much reach customers in the most cost effective way with targeted offers
- A substantial reduction in costs per transaction
- A dramatic reduction in customer service costs
- An appreciable reduction in customer service time.

Above almost all else A.F.M. Holdings as a company needs to understand the fundamental issue that the "customer is king." The target of any e-business strategy has to be focused on existing customers and then expanded to prospective customers. The overriding objective of any e-business strategy is to make it easy for customers to do business with your organisation.

9.7.1 Make it Easy for Customers to do Business with you

Based on this issue an organisation:

- Must not waste the time of their customers: customers want fast, effective service.
- Must remember who their customers are: organisations need to go out of their way to give the understanding that every customer is vitally important to them.
- Must make it easy for their customers to order and procure: just as customers don't enjoy waiting in queues, they don't enjoy having lengthy delivery delays in getting products that they have ordered. Make the process of ordering on-line quick and easy as well and self-explanatory.
- Must make sure that their service impresses their customers: nothing impresses a customer more than excellent service. Make the experience of procurement an unforgettable one – it will ultimately keep them returning.
- Must customise products and service for their customers: in order for customers to feel special they need to feel as though they are unique. They don't want products that even though they maybe mass-produced seem as though they are produced for mass-customers.

9.7.2 Focus on the End Customer

One of the major realisations that were forthcoming in the initial phases of research was that A.F.M were unable to focus their attention and get information regarding the end-customer. Once the products were in the hands of the wholesaler/distributor or intermediaries they lost all control of their product, even as far as pricing was concerned. With this in mind A.F.M.'s e-strategy, in conjunction with the industry norms and dynamics needs to focus on the customer. In order to achieve this in their strategy, A.F.M. needs to:

• Find out who their end customers are: this is critical so as they can predict the needs and desires of those customers. Which customers are their targeted customers is also critical.

- Make loyal customers feel special: this has been elaborated upon in the previous section.
- Build a community: the alliance of customer and supplier can become increasingly
 advantageous to both parties and the transparency between the two can cause competitive
 advantage for both based on a number of factors.
- Build a customer database: knowledge about the end-customer for any organisation is critical. Through e-business orders and information can be stored and used time and again to predict outcomes and deliver customised services etc.
- Let their customers place their own orders: once again this has been elaborated upon earlier.
- Let their customers check their order history and delivery status of their orders: transparency in this regard goes a long way in making the entire procurement experience memorable. An example of this is the alliance between FedEx and Amazon.com. By using FedEx as their Logistics supplier, any customer who purchases a product from Amazon.com can track the path of the product 24 hours a day until it gets delivered.
- Link customers and distribution partners to the company: Once again one can refer to the previous example to see the benefits for all parties concerned.
- Give customers the information they need to troubleshoot their own problems: by
 allowing customers the ability to access information you are in effect empowering them and
 thus creating relationships and cost efficiencies for your own company by not having to
 troubleshoot their own problems.
- Personalise the customers experience
- Segment customers by profitability: by embarking on this, A.F.M. can understand which customer needs more attention and which customer has the potential to order more etc. At the same time by segmenting the market the organisation can divide its time amongst its most profitable customers.

9.7.3 Redesign customer-facing business processes from the end-customers' point of view This issue deals with the fact that all business processes not only within A.F.M. but the industry as a whole, should be designed with the end-customer in mind. What e-business has made inherently clear is that the customer has the ability to see the entire supply chain process and customer service in a clear light. In order to address this issue and understanding, A.F.M. and the industry must tackle the following issues:

- Middlemen have a role to play? I have purposefully attached a question to this issue due to the fact that one of the characteristics of e-business is disintermediation (cutting out the middlemen). However it must be noted that if they added significant and meaningful value to the supply chain then they cannot be ignored or bypassed. This is one of the most critical factors of this entire dissertation. Can we afford to embark upon a disintermediation strategy?
- Address customer "ownership" issues: Once again this issue was raised amongst the
 A.F.M. management and it was a fundamental issue regarding the need for change. The
 company had no ownership of the customer and thus was at the mercy of the buying groups
 which although a customer were not the end customer for A.F.M.
- Technical integration: e-business is about technology aiding business, therefore those software applications which are to be implemented need to be seamlessly integrated into the overall e-strategy so as to realise the ambitions of the organisation. An example of this was given earlier in the SA banking sector.

9.7.4 Foster customer loyalty

In the past industry focused on products, with the emergence of the Internet, customers can switch to another product as easily as clicking their computer mouse. Relationships therefore are critical between suppliers and customers, products become secondary as brand names become king. Organisations must:

Move from product-centric to customer-centric business model

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9.8 Increasing Value to the Employees

Human Capital is one of the most important aspects of business but is one of the most neglected. Whilst the customer is "king", your employee should be the "emperor". By enabling your employee to effectively look after the customer you are creating a situation whereby one can get the most out of an employee. By providing employees with information they can do anything.

Ultimately it doesn't just concern itself with customer service but also with Human Resource issues such as leave issues, policies and procedures within the organisation. Unfortunately this issue is another entire thesis on its own and cannot be dealt with in this arena.

9.9 Increasing Value to the Shareholders

Understandably this is the main aim of any organisation. The shareholders interests need to be kept at the forefront of most strategy implementation. Unfortunately most shareholders are not the most patient of individuals and therefore short-term objectives based on profit tend to have greater significance. Nevertheless strategies that could affect the business at place it at risk need to be carefully examined from their point of view.

Owing to the findings regarding the industry, and the A.F.M. organisation as a whole. We can embark upon a strategy or number of strategies, which hopefully address all the issues in this section as well as other issues, and findings, which may arise in the identification of strategies for the Automotive Industry.

Section Five

POTENTIAL e-STRATEGIES

CHAPTER TEN

BUSINESS CASE 1: "ELECTRONIFY CURRENT PROCESS" (Non-disruptive)

The following e-strategies outlined have varying degrees of advantages and risks associated with their possible implementation for A.F.M. and the relevant players in the industry. For simplification purposes I have labelled each strategy according to the perceived degree of disruptiveness to the industry as a whole, as well as to A.F.M.

10.1 Characteristics

Owing to the industry dynamics and as well as the fact that A.F.M. are relatively risk averse. It would seem a likely course of action would be if A.F.M. partake in a "passive" role in following the lead of other players in the industry. What this would entail for A.F.M. would be to not be seen to be the leaders in change in the industry, due to the possible repercussions, which may occur by the middlemen.

By embarking on this strategy, A.F.M. will use e-commerce applications to connect all internal business processes in A.F.M. The advantages of this have been outlined in previous sections in the dissertation. By automating the links between suppliers, channel partners and customers (whichever they may be), A.F.M. can realise cost saving potential.

A further characteristic of this business case would be to only attempt to market their product to those customers that are not linked in any way to the middlemen thus causing them no cause for concern. At the same time their web page will allow links to the ordering systems of the preferred middlemen or distributors.

10.2 Advantages

The advantages of such an option for A.F.M. are that the threat to the intermediaries in the market will be minimal. At the same time the fact that ordering will take place via the same channels, but on an electronic basis, will benefit the customers as well as A.F.M. due to the cost savings that can be realised. Undoubtedly what this will mean is that the relationship between the supplier (A.F.M.) and the buyer (middlemen or independents) will become closer although this may also not necessarily occur with the advent of a more efficient ordering process. Furthermore inventory levels can be reduced as order/buy trends become easier to predict electronically, thus improving Customer Relationship Management.

Another big advantage is that the core function of A.F.M. and other manufacturers who embark upon this strategy will not be compromised. The core business of producing filters and automotive parts will remain as such. Carrying on from this theme is that the entire strategy will not be disruptive to A.F.M. internally and the need for extensive change management within the organisation will not be necessary.

Finally the fact that A.F.M. will be embarking upon an extensive e-commerce exercise can increase the company public image as being at the forefront of technological change.

10.3 Disadvantages/Risks

The one major negative fact concerning this entire strategy is the fact that in effect nothing has changed for A.F.M. and the automotive industry. What became evidently clear in the interviews and discussions with A.F.M. management was the fact that they had no control over their products once the products left the premises and arrived at the distributors or franchises.

Pricing and information regarding the end-customer was not available to the manufacturers, and the product – although the product of A.F.M. and PORFIL, was not theirs in reality but became the product of the intermediaries.

Secondly the intermediaries were able to exert pressure on the manufacturers profit margins by negotiating from a position of strength. A similar issue exists with the OEM's as mentioned previously in the findings of this dissertation. By adopting the non-disruptive strategy, A.F.M. will in effect not solve their main issue and a saving due to cost reduction in ordering efficiency may be negated by the upward pressure place on discounted levels by the intermediaries.

The intermediaries operating within this strategy could become even more powerful and influential in this strategy and would control further the value/supply chain and strengthen their power base even further.

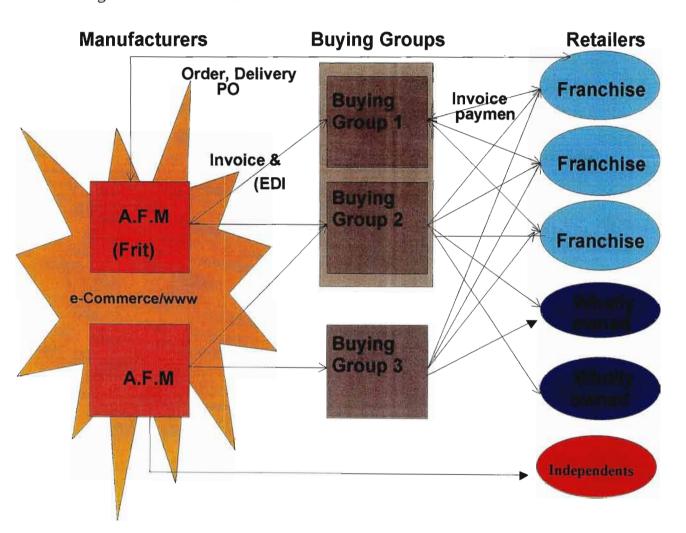
If the manufacturers are still not able to gather sales information and ordering trends from the retailer or the manufacturers end-customer, then CRM applications and the advantages that it can bring will not materialise. The manufacturers and A.F.M. cannot get close to the customer that they wish to target, thus creating another potential problem with regard to their marketing spend.

Another disadvantage is the persistent threat of parallel imports by the intermediaries or their franchised members. Although there are a certain amount of exclusivity contracts between the buying groups and the manufacturers, the intermediaries and to an even greater extent the franchises, do import an ever-increasing amount of cheaper imported goods to the detriment of the manufacturers. This issue will not be solved by the non-disruptive strategy option.

Finally, e-business is about adding value to the customer through a shortening of the supply chain and an increase in the value chain. Those organisations that do not add value to the supply chain effectively remain in business through the adoption of this strategy. In short the issues affecting A.F.M are not solved to the level that A.F.M. expects.

10.4 Diagrammatic representation - non-disruptive (Figure 12)

Figure 12: Business Case 1



CHAPTER ELEVEN

BUSINESS CASE 2: A NEW BUSINESS MODEL (Radical)

11.1 Characteristics

Understandably, this new business model is a complete "shake-up" of the industry in terms of the way business will be conducted. Within the two scenarios (non-disruptive and radical) this would be the preferred option for the automotive manufacturers and A.F.M. However in reality the chance of this strategy being adopted is very slim owing to the repercussions that may arise. Nevertheless for the sake of this dissertation a clear understanding of the disparate poles needs to be addressed.

The main characteristic of this strategy is the collaboration with other players in the industry. These players, which would be targeted, are competitors of A.F.M., suppliers of raw materials, part suppliers and customers within the retail sector. The main thrust of the strategy would be the fact that the existing intermediaries would be left out of the supply chain altogether. The result of this would be a complete realignment of supply chains and value chains.

In order to form the new distribution channels, an independent logistics and transport company will be contracted by the industry for delivery. The individual players in the industry will undergo aggressive marketing and selling via the web, targeting the end-customer directly. Once again all transactions will be conducted electronically and manually in the form of call-centres. If collaboration is successful, then the companies can form a central call-centre/ e-commerce sector for order taking and other centralised activities.

11.2 Advantages

One of the advantages is that the two companies of A.F.M. Holdings will be able to embark upon a strategy which is universal to both of them.

The reason why this strategy is so favourable to A.F.M. and the other manufacturers, is that the issue of price and product control is returned to the domain of the manufacturer. This issue was not solved in the previous business case.

Secondly and perhaps just as crucial to manufacturers is the fact that the information regarding the end-customer is readily available to the manufacturer based on the customers buying trends. Product information and sales information regarding customers will only be made available to the relevant manufacturer.

What the second point ultimately indicates is that the transparency within the industry, specifically between suppliers and buyers will be drastically increased. The advantages that are gleaned from e-commerce transactions are the same as mentioned in the previous section on e-business and can be taken as read.

The overriding advantage of the new radical business case is the fact that productivity in the industry on an individual company scale will increase due to the overall advantage the e-business transactions bring to the organisations. Productivity will increase due to amongst other things, information availability, correct forecasting regarding stock purchases and stock availability as well as a gradual move towards Just-In-Time operations. Detailed information on customer ordering patterns will make JIT a reality.

As far as consolidating market share and retaining customers in this Internet age, another advantage would be through CRM, customers could be locked in to the system thus decreasing the chance of switching to other products on offer. Although there will be an increase in advertising and marketing as the manufacturers market direct to their customers, this should not compromise the core functions of the organisations as this advertising and marketing is done to a certain degree at present.

Finally the real bonus to the industry will in fact be aimed at the customer. As mentioned previously, e-business naturally shortens the supply chain from manufacturer to customer and this in effect also increases the value that is added. Those business entities that do not add value are pushed out of the cycle thus streamlining the entire supply chain. This in essence is the overall aspect of this e-business strategy.

11.3 Disadvantages/Risks

As far as risks are concerned, the critical issue is the fact that the intermediaries in the supply chain will be under threat from the rest of the industry and thus a number of options or courses of actions can be predicted.

First and foremost, one should not be under any illusion that the buying groups will not take any action. These intermediaries have grown up and developed into powerful financial organisations with a lot of influence in the industry.

Secondly, the majority of the major buying groups have embarked upon forward integration in the supply chain as large retailers and franchisers. This would indicate that their power would lie in the retail sector, which in this case could impact on any decisions made further up the value chain. In order to embark upon disintermediation of the automotive aftermarket, the manufacturers need

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to replace or improve upon the value that some of the intermediaries added to the customer. Based on research this value would be in the form of an effective "basket of goods" that the middlemen provide to the customer. Secondly the intermediaries provide credit facilities and financial guarantee to the manufacturers. As far as distribution is concerned, the manufacturers invariably distribute products to the retailer instead of to the middlemen, but still provide a mark-up on the price for this service.

What collaboration of the manufacturers will do will be to guarantee a "basket of goods" whereby a retailer can order online from a web-site and order the parts from this basket. If this is achieved, the value added aspect of the intermediaries is accomplished effectively. With regard to the OEM's, this problem will still persist but this dissertation does not attempt to cover this sector. The fact that the OEMs are powerful institutions with an enormous amount of influence would indicate that the manufacturers be content with the present situation rather than attempt to install a new business/distribution model.

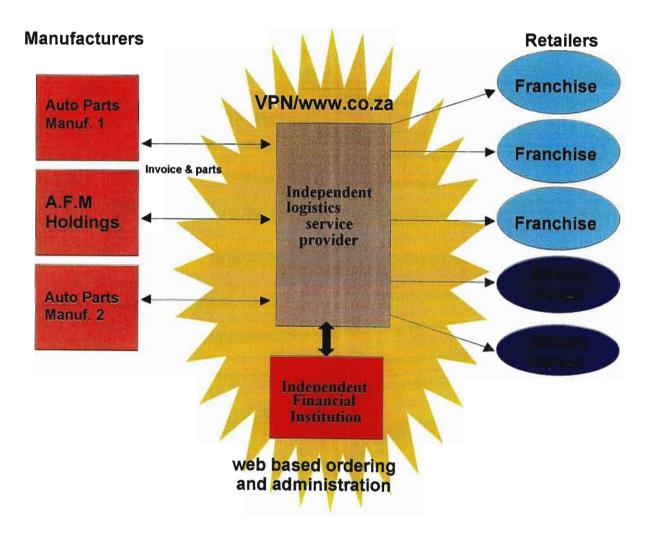
Collaboration remains the key to this entire business model, but this is easier said than done. Dynamics within the industry as well as industry forces at play make manufacturer collaboration a relatively difficult task but not an insurmountable one. Already there is talk amongst key players in the industry regarding this exact issue although it has been ongoing for some six years!

As mentioned previously, this business model is radical in its implementation as well as the repercussions it could have for the entire industry. Issue such as an increase in foreign importation by the intermediaries to counter their non-involvement in the supply chain as well as a possible boycotting of products remains a very real threat. However collaboration amongst the manufacturers could force the intermediaries to "tow the line," although this is a dangerous game to play. Based on these factors I have devised a strategy, which I believe can counter these risks

and turn the entire industry and its players into a more effective entity, which will create win-win situations for all concerned.

11.4 Diagrammatic representation – Radical (Figure 13)

Figure 13: Business Case 2



Section Six

e-Strategy Recommendation

CHAPTER TWELVE e-STRATEGY RECOMMENDATION

12.1 AutoSolutions.com

Based on the two potential scenarios/business cases provided in the previous section, it would seem prudent to embark upon a strategy which would be seen by the market players as being less disruptive, but at the same time having more to offer in terms of benefits for the automotive manufacturers.

Thus a strategy has been formulated which I believe would be a combination of the two potential business cases on offer. In this way the entire industry can benefit with increased efficiencies and cost reduction made possible by the increase in information and e-business.

AutoSolutions.com is an attractive business opportunity in terms of the fact that it is a sound business model. This is highlighted by the fact that it maintains brand identity and offering valueadded services, which build customer loyalty, by using aggregation of demand to enable costeffective inventory management.

A collaborative approach to e-business and a consolidation of the industry fits the overall automotive industry's direction. Examples of this collaboration include the recent TradeX agreements between Daimler-Chrysler/Ford/General Motors as well as numerous others in the pipeline.

The e-business strategy has significant potential to build shareholder wealth. With the operational gains through increased revenue and reduced costs that this collaboration with electronic business brings, the individual players can respond decisively against competitive threats within the market place. With a relatively modest investment and commitment from the respective members the operation and strategy can be a huge success. In order to summarise the potential that can be attained for an organisation that wishes to embark on e-business, the following graph (Figure 14) depicts the strategic goals that can be attained by organisations that adopt successful e-business strategies.

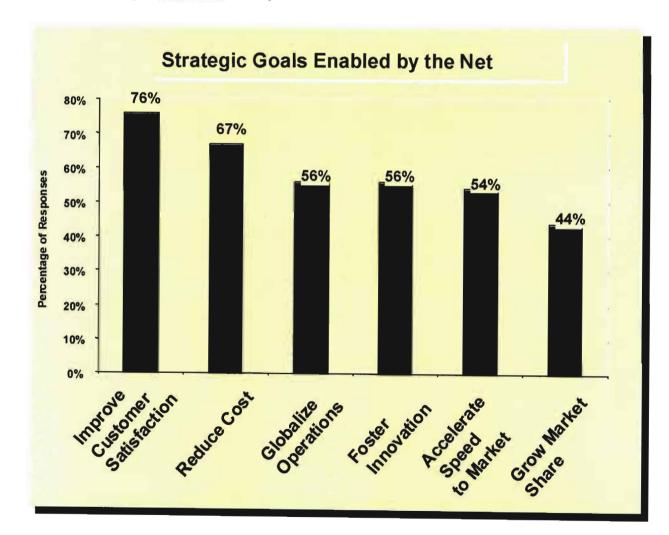
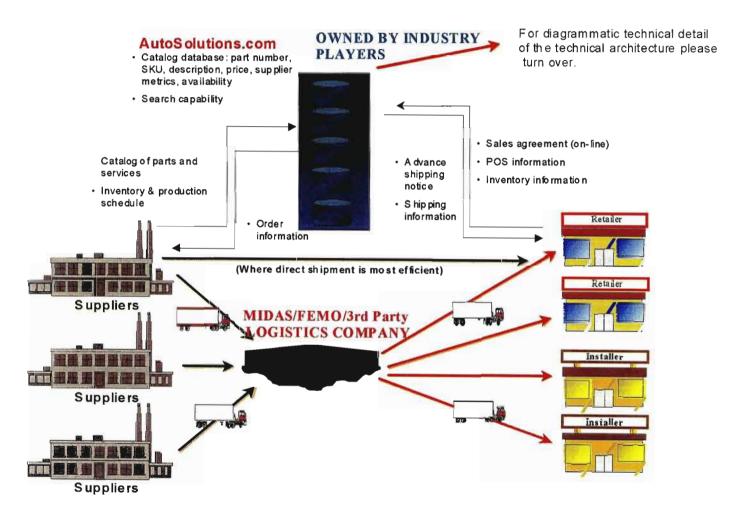


Figure 14: Strategic Goals Enabled by the Internet

In order to make referral easier as well as understanding I have included a diagrammatic

representation of the proposed AutoSolutions.com below (Figure 15):

Figure 15: AutoSolutions.com



Following on from the diagram (Figure 15) I have outlined my strategy:

12.2 Characteristics of A.F.M. Holdings and Auto Industry

In order to embark upon an e-business strategy one has to take into account the business practices and processes of the industry and the players. I believe that I have conveyed this in the initial sections of this dissertation. Nevertheless a quick recap of the characteristics would be beneficial.

The automotive industry is a mature industry with conservative business practices and processes. The players in the industry operate in a market with little volume growth and in a highly fragmented market. The industry is littered with huge multinational conglomerates with an enormous amount of influence and financial clout. In the case of A.F.M., they are followers rather than leaders in this industry.

Based on this understanding of the general characteristics of the industry I can outline my intended e-strategy recommendation and its characteristics and advantages and risks.

12.3 Characteristics of AutoSolutions.com

The characteristics of AutoSolutions.com will be discussed in terms of players in the industry, technology and then an in-depth analysis of the advantages and issues that can be expected with the implementation of AutoSolutions.com.

Players

Once again, AutoSolutions.com needs the collaboration of the players in the industry. Where it differs from the previous strategy (radical) is the fact that in this case the collaboration will be industry-wide and will include the intermediaries. However a cautionary warning must be given at this point. The manufacturers must form collaboration amongst themselves initially so as to negotiate from a position of strength with the intermediaries. In this way the middlemen will have to fall in line with the proposed strategy.

Once again there will be electronic selling between the buying groups, retailers and manufacturing sectors within the industry, not only electronically but also with call-centre technology. As far as new distribution channels are concerned, this is not critical at this stage and herein lies the non-disruptive aspect of the strategy for the intermediaries.

The added advantage for the entire manufacturing and retail sector of the market will concern itself with the information aspect of the strategy. The free flow of information from retailer to manufacturer and vice versa will be greatly enhanced for both parties.

In short the characteristics of AutoSolutions.com will be potentially nondisruptive for the entire industry. This will be expanded upon fully in the following sections.

12.4 Technology of Hub

The technology of this entire e-strategy was copied from the pharmaceutical industry of which the author was a previous employee. By adopting the distribution network as well as the technology and strategy behind the pharmaceutical industry, I was able to substitute the players of the industry with that of the automotive players. The added advantage of the technology is that it is easily transported to other spheres of industry, which need to implement successful e-business strategy coupled with supply chain and value-chain enhancement.

Below is a diagram (Figure 16) of the Internet connectivity sequence if a retailer or customer wishes to order from the AutoSolutions.com website. It makes allowances for Internet dial-up or call-centre technology.

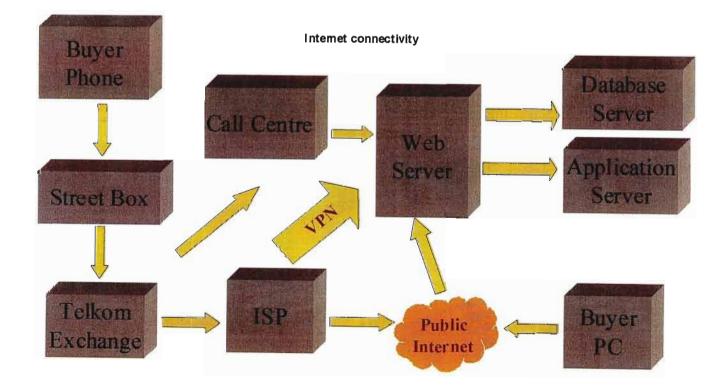
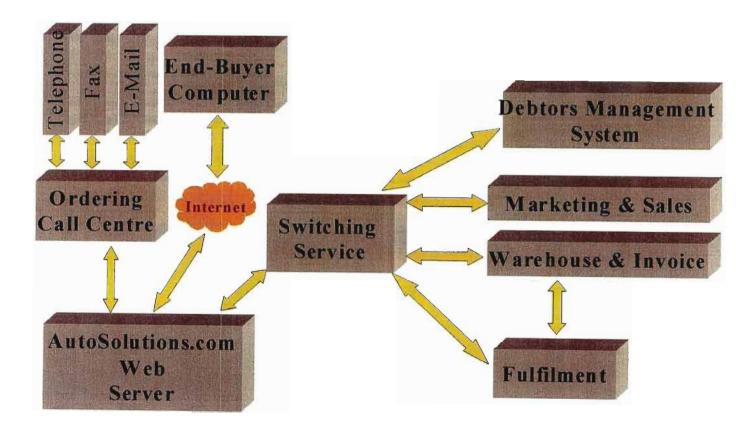


Figure 16: Internet Connectivity Sequence

An important factor to note is the fact that the players who are in collaboration with the process and who subscribe to the system can dial-up on a Virtual Private Network (VPN) which brings with it the security and privacy needed for information gathering and processing. An outsider who is not part of the exchange can dial into the system but will have to login a password and register on the network. The customer will then be subjected to the necessary credit checks and account details.

Although credit card details can be submitted the entire system will be run on an account system which can be paid in accordance with normal debtors prerequisites. To expand further the diagram below (Figure 17) takes the understanding of the technology even further:

Figure 17: Technology and Switching Service



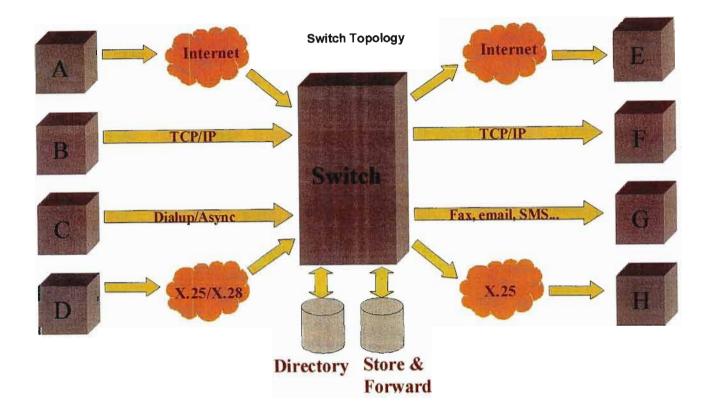
What this diagram (Figure 17) depicts further is the manner in which the ordering is conducted and the way this ordering information is relayed to the relevant parties. The customer can place an order either via fax, e-mail, phone or Internet to the call-centre/ordering centre at AutoSolutions.com. effectively the customer is presented with an array of goods that is available. By selecting those products that he wants delivered that day he merely types in the quantity. The system immediately responds with the total cost of transaction as well as an order confirmation once the necessary account details have been clarified and checked.

The order is sent via a "switch" to the relevant manufacturers, which the customer requested, and the information is entered into the normal ordering systems of the manufacturer. In the case of A.F.M, there electronic system is JD Edwards although the other manufacturers have a number of systems such as SAP etc. The ability to relay orders and "talk" to the relevant manufacturers systems is what sets this technology apart from any other. In fact it is to my knowledge the only system presently available that is operational (pharmaceutical industry).

Once the order enters the system the in-house ordering process takes effect and the order process is fulfilled via the normal distribution channels.

The following diagram (Figure 18) merely takes a closer look at the "switch" topology for those technologically advanced. It is not my intention to elaborate further on this point and have added the diagram merely for interest sake.

Figure 18: Switch Topology



12.5 Further Characteristics of AutoSolutions.com

Although mention of this was made previously, it is felt that a detailed characteristic analysis, linked with the advantages of AutoSolutions.com be completed for further understanding:

- Market Driven: AutoSolutions.com is a supplier- and channel partner-owned initiative focused on improving operations and increasing shareholder value.
- Independent: AutoSolutions.com will be created and operated as a separate legal entity. The founding (investing) companies will initially share ownership and governance responsibility. In this way the potential to hijack the supply/value chain will be minimised.

- Channel Focus: AutoSolutions.com will support suppliers' current retail and distributor channel partners. It is not our intent to develop new channels and/or undermine current dealer and distributor channel partners. Access will be limited to invited subscribers while we build our technical capabilities. Participation will concentrate on the ability to add value to the channel.
- Selective: Initial partners will be selected based on complementary product portfolios and market presence. Exceptions may be made for strategic reasons, such as the need to quickly build breadth and depth of offerings.
- Branding: AutoSolutions.com does not intend to create a new "product" brand identity. Rather, the individual participants will be able to further develop their own brands by leveraging AutoSolutions.com value-added services.
- Open Architecture: The technology for AutoSolutions.com will allow for a variety of interfaces from buyers' and sellers' current systems, including Microsoft and Netscape browsers, EDI, XML, and direct ERP connectivity.
- Other Exchanges: AutoSolutions.com can be designed to support links to a variety of other Xchanges.
- Scalable: The idea would be to implement AutoSolutions.com with some initial players and then scale up the membership. At the same time the technology is not constrictive.
- Timing: The overriding objective of this solution would be "first to market".
 With the technology capability, we need to develop and implement the strategic issues as soon as possible.

12.6 Advantages

Although the advantages of e-business and its impact on business have been dealt with in the overview of e-business (section 2), it is worth reiterating these advantages thus giving pertinent selling points for the recommended e-strategy.

One of the major advantages of AutoSolutions.com is the fact that the entire industry has been accommodated effectively. Ownership of AutoSolutions.com is industrywide and its independence in this regard is not only critical but its biggest strength and draw card.

AutoSolutions.com will allow the relevant participants to better manage aftermarket sales, in the face of moves by OEM's, dot-com start-ups, and others who seek to act as intermediaries in this value chain. What in effect this refers to is the so-called "lock-in" of customers in the value chain, thus keeping potential competitors out.

AutoSolutions.com offers suppliers lower transaction costs, higher customer satisfaction, lower inventories of finished goods, and increased market share as their channel partners turn to the most convenient e-procurement method.

AutoSolutions.com offers distributors and retailers quick, efficient online access to the majority of the part types they need, combined with an ability to track shipments resulting on improved customer service.

Catalogue ordering is available by all players in the industry and will be searchable by part number, attributes or design. The collaboration of manufacturers will ensure the

broadest possible coverage of parts available with accurate updates. The nature of electronic ordering will ensure that as little human contact as possible is maintained so as to improve speed, accuracy and dependability.

Due to Internet–enabled improvement in operations e-business in conjunction with Autosolutions.com, will allow for on-line order tracking and advance shipping notice for all players. This will enable better visibility and transparency of the order process mentioned earlier. There will be on-line services driven by information received from multiple buyers and sellers.

The products will be shipped directly from manufacturer to consumer via a warehouse/logistics company where the retailer requests it. In conjunction with this, the financial transactions will flow through a third party or the Logistics Company. This in effect will allow for automated financial tracking and reporting.

In effect the whole process will improve inventory levels and will ultimately achieve the aim of JIT processes for all parties.

Further advantages for customers can be in the form of on-line product information such as specifications, fitment and service manuals for all products. Coupled with improved market information for manufacturers in the form of customer buying trends/patterns the full effects of inventory management and customer management mentioned earlier will be realised. Although as mentioned in a previous section the possibility for an improved market share is possible but is highly unlikely owning to the mature industry dynamics. In the case of A.F.M. with a 70% market share, a further increase in this regard would be minimal.

What would be beneficial for the entire industry would be the speed to market in terms of the formation of the exchange. In effect this would consolidate the position of the established players in the market in the face of any potential threats especially from foreign imports. Thus the industry will be well shaped and the players will be well placed for the future.

Although not mentioned earlier, the cost of the technology will be inexpensive with prices of around R200 000, 00 per company, which can be shared. However there will be an annual cost of subscription to be paid by the affiliated companies, which will be relatively inexpensive. Although no costing has been done for the project, the potential savings that the pharmaceutical industry has realised are nothing short of phenomenal.

Finally on a technological front, the application that will be used is a highly versatile application that has the ability to interface with a number of applications such as JD Edwards and SAP as examples. The fact that it is web-based allows for universal usage and has both Intranet and Virtual Private Network Capability (VPN).

The advantages are endless; the fact that e-business can transform this industry into an effective and efficient vehicle will produce industry-wide cost advantages.

12.7 Issues

Although the advantages for all players are relatively straightforward, there remain a few issues that need to be highlighted. Recent events have indicated that there are plans afoot by the intermediaries to embark upon e-business strategies of their own for the industry but with a natural favouring towards their point of view. If one can review the diagram of the radical e-strategy scenario (page 90), the intermediaries wish to control the Internet ordering web site thus further enhancing their position in the supply/value chain.

Overall industry dynamics as we have seen play a major role in our strategy options and we still have to understand the implications of our strategy fully. The intermediaries will not take kindly to the fact that a lucrative yet essentially a nonvalue added service that they provide will have to be restructured. Their power base will have shifted slightly.

Finally the biggest issue is that A.F.M cannot afford to embark on this strategy alone for fear of reprisal and a potential loss of market share based on the counter measures adopted by the intermediaries. Although A.F.M can embark on a potential nondisruptive course of action, the issue of price and product control as well as customer information remains an issue. The automotive industry enters into a period of reflection whereby the players in the industry need to satisfy their needs and adopt business models whereby all can benefit. To counter these issues, a detailed way forward has been devised so as to effectively implement the strategy with the least form of disruption to the industry in the short to medium term.

Section Seven

Way Forward/Next Steps

CHAPTER THIRTEEN

WAY FORWARD

In order to bring about the suggested e-strategy recommendation for the automotive industry as well as for A.F.M. Holdings, it is further recommended that a three phased approach to its implementation be initiated by A.F.M. Holdings.

13.1 Phase1: Set up e-commerce transacting facility (non-disruptive)

A.F.M. Holdings will need to set up an electronic trading/ordering facility with those "customers" which currently order directly from them. These customers would include predominantly the independent players in the retail market.

The e-commerce facility will include electronic ordering capability, credit limit checking for the customer of their accounts, credit approval ratings and account status checking.

However, prior to the establishment of this electronic facility, A.F.M. Holdings and their e-business team will need to test the ability of the group to transact electronically. This testing will include an assessment of the level of integration in to A.F.M. Holdings' business processes. Stakeholder relationships within the industry need to be assessed, as well as the products and services which A.F.M. wish to sell or deliver electronically.

Added to this will be a complete assessment of the level of Information Technology within A.F.M. At present A.M.F. runs off JD Edwards' "OneWorld" software. In

order to transact electronically there has to be a change or realignment in the leadership and management in the organisation itself. Although a seemingly moot point, from experience as a management consultant, it is usually one of the biggest downfalls of any strategy to get leadership and employees to grasp the change in business concepts.

Further assessment would come in the form of security and control of the electronic systems. Although not a technical expert it is well known that security amongst e-commerce initiatives is crucial.

Finally the auditing, assurance, tax, legal and other regulatory assessments need to be conducted.

Once this assessment has been conducted for A.F.M., the e-business team must conduct a similar e-business readiness assessment as was conducted for this assignment of the potential trading partners/customers.

From all of the necessary assessments, an informed and knowledgeable evaluation and selection of suitable e-commerce software and technology can be made.

Finally, the e-business team can begin signing-on their required partners for the initial e-commerce phase of our recommendation.

13.2 Phase 2: Establish collaboration

Once the e-commerce facility has been set up between A.F.M. and their customers, the phase should be up and running for about 2-3 months at the most before Phase 2 begins, although Phase 1 and 2 can begin almost simultaneously.

A.F.M. needs to establish a "basket" of other parts (service parts) through collaboration with other automotive parts manufacturers (AutoSolutions.com). The reason for this is due to the value-added component that the buying groups at present add to the value chain. As mentioned previously this aspect needs to be matched and exceeded by this collaboration.

The collaboration of parts manufacturers ("basket of goods") will transact electronically with the established customer base that A.F.M. developed in Phase 1. This entire phase will be the initiation of an electronic automotive Xchange/hub (AutoSolutions.com).

Once again the respective manufacturers will need to follow a similar assessments of their business processes as mentioned in Phase 1. At the same time an e-business readiness assessment of the "collaborative" partners needs to be undertaken.

Finally an extended marketing/selling and signing-on of other parts manufacturers can then begin.

13.3 Phase 3: Development of Xchange (AutoSolutions.com) - radical

The development of Phase 3 depends solely on the evolution of the automotive aftermarket industry. Both Phases 1 and 2 are non-disruptive in their implementation in terms of the supply and value chains of the industry. However, this could change drastically. I assume the buying groups will come under increasing pressure from their affiliated retailers who will not see the value in their distribution etc as compared to the other independent players in the retail market who have taken advantage of the ebusiness relationship.

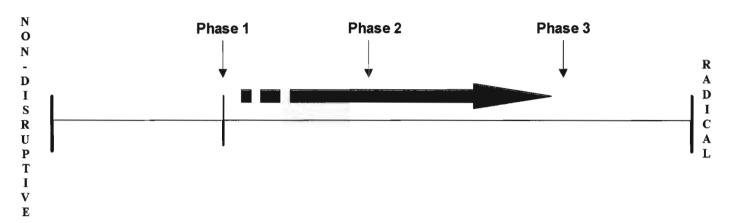
Therefore the possible outcomes of this Phase will be total disintermediation (the establishment of direct ordering). There will be the potential for a 3rd/4th party logistics player to enter into the industry to take care of distribution. This would probably include central warehousing facilities for the industry.

Finally and more importantly there will be a dramatic change in the industry dynamics.

13.4 Summary

Below is a summary diagram (Figure 19) depicting the Phases and their impact on the supply chain and value chain of the industry. We can see that as one moves from one phase to the next so the level of disruptiveness increases and thus the industry dynamics change accordingly.





Section Eight



CHAPTER FOURTEEN

CONCLUSION

In concluding I would like to draw your attention to the following two quotes that adequately sum up my position regarding the recommended e-business strategy for A.M.F. and the entire Automotive Industry as a whole, and end off where I began in my foreword:

"It is not the strongest of the species that survives, not the most intelligent – it is the one most adaptable to change"

(Charles Darwin)

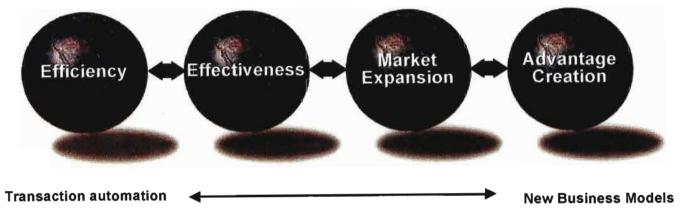
In the diagram below (Figure 20), I have developed an e-strategy in which each company within the Automotive Industry including A.F.M. must decide once and for all to what extent e-business will be used to change the way they do business. In this dissertation I have given the two poles or two ends of the continuum for discussion and e-strategy development. AutoSolutions.com is a point within this continuum, which I believe will adequately and effectively transform the Automotive Industry for the future and equip its players for the e-business revolution.

However the players within the industry themselves must decide to what extent ebusiness will be used to change the way they do business, from simple automation of their current business model (non-disruptive option), to radical business model transformation (radical option). **Figure 20: IT Value Continuum**

Develop e-Strategy

Each company must decide to what extent e-Business will be used to change the way they do business, from simple automation of their current business model to radical business model transformation.

The IT Value Continuum



Source: The Economists Intelligence Unit

AutoSolutions.com is merely the forerunner of things to come and the automotive industry can either jump on now or wait and perhaps miss the boat.

"Most companies don't die because are wrong; they die because they do not commit themselves. The greatest danger is standing still."

(Idris Mootee)

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GLOSSARY OF TERMS

Electronic commerce means conducting business electronically. Conducting business electronically means conducting, managing and executing transactions (includes exchanging information between parties as well the exchange of money for goods and services) using Internet technologies.

The Internet is a system of linked computer networks that facilitates data communication services such as remote login, file transfer, e-mail and newsgroups. It is global in scope and is strongly decentralised. The Internet is also referred to interchangeably as the "web."

The World Wide Web (www), however, is the global hypertext system that uses the Internet as its transport mechanism. The hypertext system allows the user to navigate between documents by clicking hyperlinks, i.e. the familiar "point and click" on text or graphic link buttons.

An Intranet is a private network within an organisation, which uses Internet technology, but has its own lines and routers, or a closed user group on the public network. In either case, the intranet is only accessible by individuals who work within the organisation.

An extranet is an extended intranet, i.e. it provides selective access to specified external parties such as preferred suppliers and customers.

A Firewall is a combination of hardware and software applications that control the access in and out of a company, i.e. protects the interface between the private company network and a public network such as the Internet.

EDI (Electronic Data Interchange) is the electronic communication of business transactions such as orders, confirmations and invoices between organisations.

EFT (Electronic Funds Transfer) is the transmission of electronic payments.

Business to Business (B2B) is electronic business between one business entity and another.

Business to Consumer (B2C) is electronic business between a business and a consumer, invariably a private and independent Internet user.

Disintermediation is the removal of middlemen or intermediaries from the supply/value chain.

APPENDICES

e-Business Readiness Assessment Questionnaire

Understand the nature of the organisation's product

- 1. Is your core value proposition a product, a service or a combination of both?
- Is the delivery of your product very closely coupled with the delivery of a service? (e.g. Tyres & installation of tyres)
- 3. Is the speed of delivery a core value of your product? (e.g. fast food) That is, do people purchase from you because they will receive the goods immediately?
- 4. Can your product (service), or parts thereof, be digitally delivered?
- 5. Are there complimentary goods or services demanded by your customers that you currently don't offer?
- 5a. How many different products does your organisation sell?

Understand product pricing and payment strategy

- 6. How is your product priced? Quality versus low price? (In some instances the organisation will have no control over pricing strategies i.e. the franchises the interviewer needs to understand this scenario).
- 7. Is there an opportunity to use micro-payments for your product?

- 8. Is paying a major portion of the purchase transaction? (An example of this would be that in order for a product to be purchased it would have to have a cheque requisition and other admin procedures to fulfil).
- 9. Are your products paid for with cash, credit card, and electronic funds transfer or purchase order?
- 10. Would your customers be willing to pay via EFT (Electronic Funds Transfer)?

Understand the organisation's customers

- 11. Are your customers the ultimate consumers of your product or service?
- 12. Are your customers technically savvy? (Give examples such as they can browse on the Internet, or they use a computer in their everyday office environment, or they have no knowledge of computers whatsoever).
- 13. Are your customers connected to the Internet?
- 14. Are your customers demanding Internet access to your company, products or ordering capabilities?
- 15. How often do your customers repeat purchase? How similar are the purchases each time?
- 16. How price sensitive are your customers? Service sensitive?
- 17. How educated are those employees that are in contact with your customers?

- 18. How integral to your product or service delivery is data collected on customer behaviour and trends?
- 19. Does your company experience relatively high turnover? (This is concerned with customers, and therefore the objective of this question is to ascertain whether the same customers purchase the products or are there a wide variety of customers all the time that purchase)?
- 20. How is your company viewed by the market? For example, do your customers purchase from you because of the quality or price of your product or the service that you provide?

Understand the organisation's competitors

- 21. Have there been major new competitors for your customers in the last 5 years? If yes, what market gap did they exploit?
- 22. Are your competitors relatively more internet-enabled than you?
- 23. Do you see well-known web-portals as potential competitors for your customers?
- 24. Are your competitors currently focused on mergers or acquisitions?
- 25. Who are your key competitors?
- 26. What is their competitive advantage over you?
- 27. What is your competitive advantage?

- 28. What are your current strengths, weaknesses compared to your competitors?
- 29. Have you identified any opportunities for your organisation or are their any perceived threats that may materialise in the future?

Understand the organisation culture

- 30. Is collaboration a part of your current culture, or is there a high level of competition between business units, regions or divisions?
- 31. Would you describe your organisation as innovative and easily susceptible to change and improvement in the business environment? (Find out how proactive the organisation is with regards to understanding the organisation readiness for e-business).
- 32. Is your compensation structure setup to incentivise change, improvements and performance?

Understand the organisation's role in the value chain

- 33. Ask interviewee to explain how they see their value-chain (from diagram supplied by us). Cover the following points:
 - a) How much of the value-chain do you own or control?
 - b) How many suppliers does your company currently deal with?
 - c) How does information (pricing, product quality) currently flow up and down your value chain?
 - d) What is the inventory turnover rate within your value chain? *Two weeks maximum for any product.*
 - e) How distributed is your purchasing function?

- f) How integrated is your organisation in the value chain?
- g) How web-enabled are the other players in the value chain?

Determine e-business readiness

- 34. Have you considered e-business and do you have a strategy in place. If yes, cover the following points in your discussion:
- a) Is your organization incrementally budgeting money to e-Business opportunities?
- b) Are e-Business opportunities limited to funding through operational budgeting, or does your organization have a process in place to make large amounts of capital available if opportunities exist?
- c) Is the funding available for e-Business distributed throughout the organization, or is e-Business funding centralized being managed through a central e-Business unit?
- d) Does your company have the appropriate senior leadership of e-Business?
- e) Do your top executives believe that e-Business will enable major change to your organization?
 Do they recognize the opportunities?

If no:

- f) Are you amenable to being included in an e-bus strategy? If not, why? If yes, ask if senior sponsorship/buy-in would be easy to obtain.
- 35. Does your company currently have the skills required to succeed in e-Business? (The interviewer must give examples of some of the skills required by a firm to succeed in e-business).
- 36. Are there any legal implications of conducting your business over the Internet, such as compliance with regulatory bodies?

37. Are there any territorial limitations or boundaries with regard to your organisation conducting e-business? (African states or global states).

38. Does your company currently have an ERP system?

39. Do most employees have access to a computer with Internet or intranet access?

40. Are your distributed locations enabled with network connectivity?

41. Do you currently have an Intranet in place?