International Business

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EVALUATING AND PREDICTING THE FUTURE OF A PROTECTED INDUSTRY

THE CASE OF THE MALAYSIAN AUTOMOTIVE INDUSTRY

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ABSTRACT

Over the last 20 years, the automotive industry in Malaysia has been heavily protected as a result of high tariff and non tariff barriers imposed by the government. Protectionism has enabled the development of national motor vehicle manufacturers as well as national automotive component suppliers. The barriers to trade effectively shielded national companies from foreign competition. Not surprising that this has led to dominance of the automotive industry by national companies, however without strong foreign competitors, the efficiency of national auto manufacturers and suppliers remains low. This low efficiency and the challenges and threats related to global competition have led the government to maintain its protectionist regimes into the 21st century. On the other hand, pressure from sources promoting globalization and free-trade such as AFTA and the WTO are mounting and the government may soon be forced to make some changes to its current regime.

This thesis is meant to provide the reader with a broad picture of the dynamic Malaysian automotive industry's current situation, the forces that influence it, and especially, the future situation that should prevail and its effect on the dimensions of the industry. We developed two models in this research in order to assist us through our task. Those models were named the protected industry model and the anticipating the future of an industry (AFI) model.

According to our findings, we judge that the government will timidly begin reduce its grasp over the automotive industry by reducing the level of non-tariffs barriers especially those related to components manufacturers. This will allow the national car manufacturers to enjoy a high level of protection still for some years while keeping foreign competition aside for additional years. Components manufacturers will however have to cope with the situation and make their way through a more challenging and competitive market. This could ultimately be done with the assistance of foreign companies. All in all, the customers will be the ones that will have to be the most patient since high prices and a lower level of quality are all that they can expect for the next five years.

Keywords:

Malaysia, automotive industry, business environment, protected industry, government, scenarios, future, Proton

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Furthermore, we would like to express our appreciation towards all of the persons who agreed to convene with us to discuss the automotive industry. There are too many to mention but rest assured that your hospitality, friendliness, and openness will not be forgotten. Meeting with these persons has greatly heightened the quality of the data contained in this thesis.

Finally, we would like to thank our thesis supervisors, Professor Hans Jansson and Professor Claes-Göran Alvstam. We would have been lost without their insightful comments and feedback.

Göteborg, December 6th, 2001

Zac Ryan Eric Billette

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1 INTRODUCTION

The purpose of this chapter is to introduce the subject matter of the thesis by introducing the problem area, research background, and delimitations of our research. First, the thesis topic will be discussed, followed by a short introduction to the theories that will be used. The problem statement and background will be dwelled upon next, leading to the purpose of the thesis. Finally, an introduction to our exemplar company, ThyssenKrupp AG, is given.

1.1 Background

1.1.1 Thesis Topic

The automotive sector in any country is seen as an important driver of industrial development, provider of technological capability, and generator of inter-industry linkages. This is partly because the industry brings together various components and parts, many of which are manufactured by suppliers in other industries, such as plastics, steel, electronics, rubber, textiles, glass, and metals.[1]

In Malaysia the automotive sector is especially interesting since it is completely different from a typical automotive industry. The Malaysian government recognized the importance of the industry in the country's industrial deepening process and assumed a pro-active role in its development by initiating a national car program in 1983. In fact, among the ASEAN countries, it can be said that Malaysia has one of the most interventionist regimes to promote and develop the local automotive industry.

This thesis reviews the role of government policies and other protective measures in shaping the automotive industry in Malaysia. Relevant actors and factors that influence the industry and shape the future will also be looked upon. In order to do so, our own models that hold for a protected industry will be developed. These models are called the protected industry model and the anticipating an industry future (AIF) model. Using the first model, the protected industry model, the current situation of the automotive industry in Malaysia will be assessed and analyzed. The knowledge acquired on the current situation will then be analyzed using the AIF model to come up with anticipations for the future. In order to do so, we shall investigate the events that will provide us with clues about the future outcome of the industry.

[1] http://www.asean-auto.org/ (November 22, 2001)

Next, the establishment of possible scenarios will be completed. Upon the development of the scenarios, we will then make an educated deduction of what the most likely one will be. From this scenario, the effects on the major players in Malaysia's automotive industry will be assessed. Finally, implications for an exemplar company will be affirmed.

We have chosen to use a case study strategy as a base for the thesis. The Malaysian automotive industry will therefore be our case study. The company ThyssenKrupp AG will be also be used as an exemplar company and will help to illustrate the implications of a company into the entire external setting. ThyssenKrupp is an appropriate exemplar company for this thesis because it is a foreign (German) company that has an automotive division that represents over 100 automotive-related companies that may be looking to invest in Malaysia. However, one should keep in mind that the notions related to ThyssenKrupp will only supplement this research and shall not be its main focus.

The crux at this point is to know how the Malaysian government will manage its automotive industry in the next five years. We wonder if the national companies will pursue their hegemony on the national market or if more space will be created for foreign companies. This creates a need to make an educated guess on what will happen in the future and how it will affect the actors within the industry.

1.1.2 Theories

A number of theories have assisted us through the various steps of this thesis, mainly in creating our own protected industry model. Those models and framework brought together constitute the theoretical framework of this research.

Parts of many famous models were used in creating our own models that are more applicable to a protected industry. The models and framework that have influenced our research include: Porter's (1990) diamond model, Porter's (1985) industrial clusters, Jansson's (2000) institutional model, Jansson's (2000) network model, Dicken's (1998) ideal type framework, Grant's (1998) industry life cycle model, and Van der Heijden's (1996) scenarios. The models we have developed are called the protected industry model (presented in chapter 3) and the AFI model (presented in chapter 5).

1.1.3 Global Automotive Industry

The global automotive industry has without a doubt influenced world economic development since the mid-twentieth century. Significant employment, new business creation, and regional development are all positive products of the automotive industry. However, in North American and Western European markets the industry has reached its maturity and demand is largely replacement demand. In the US, the automotive industry is one of the most important industries. In fact, one of every seven jobs is related directly or indirectly to the auto industry.[2]

In the midst of an economic slowdown car companies have still been spending. An Autopolis press release states: "Instead of making money in the good times, they have squandered their future." Auto manufacturers have continued to emphasize profitability over market share. They have been churning out an ever greater number of new models, shortening product development cycles, and trying to subsidize losses on car sales with higher parts and servicing prices. This has resulted in a highly competitive industry with chronically low returns, masses of duplication and too many factories.[3]

The growth markets of today are South East Asia, China, and Eastern/Central Europe. A few of the most promising countries for the auto industry growth are China, Malaysia, Indonesia, and India. However, while the immediate outlook for Asia's auto sector is brighter than in Europe or North America, the industry is mid-way through "a decade of stagnation"[4]. Autopolis says auto sales in Asia will be almost flat in 2001, marking an end to the heady growth of the last few years. Next year, it expects sales outside Japan to fall by a hefty 7 percent and production to drop by more than 8 percent, as exports decline. In spite of this, Asia seems to be a bright point in the medium-term (about 5 years)

Industry experts do not expect any growth in the global auto industry for the next two years. Instead, declines of 2 – 8 percent are likely for 2001-2002 with growth of not more that 1 – 2 percent per annum over the next decade. Of course projections are becoming increasingly difficult in the midst of a war and a potentially slowing world economy.

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[2] Industry Analysis, Industry Environment – The Outlook is Uncertain for Automakers, March 12, 2001

[3] Autopolis Press Release – Auto Industry Facing Substantial Decline, September 28, 2001

[4] Autopolis Press Release – Auto Industry Facing Substantial Decline, September 28, 2001

1.1.4 Research Background

To get an idea on how an industry actually operates it is essential to actually go to the country and speak with key persons involved in the industry. July 7 – September 10, 2001, we were in Kuala Lumpur, Malaysia doing exactly this. Interviews were completed with many persons with expertise relating to the automotive industry. The various parties interviewed include members of auto manufacturers, auto component manufacturers, journalists, securities analysis departments in major banks, government officials, as well as associations such as the Malaysian Automotive Association (MAA).

However, after more than 40 interviews and hundreds of articles about the subject, it is still impossible to figure out which direction the industry will take. At this level, the main prize should be attributed to the government who has been quite successful in giving as fewer clues as possible regarding the future and, more specifically 2005. Such a situation plunges industry observers into worries since it is impossible for national actors to properly establish their strategy since they still don't have an idea about the future "rules of the game." In an effort to provide the reader with some light, we will construct viable scenarios for 2005, taking into consideration everything we have learned throughout the research. First, however our problem must be defined and the current situation assessed and analyzed.

1.2 Problem Definition

1.2.1 Problem Background & Discussion

Among all talks in Malaysia, the future of the automotive industry would certainly make the top five of the controversial subjects. As this thesis will explain, the government is currently standing at the crossroad and must decide on whether the Malaysian automotive industry will eventually open up to ASEAN or if the government will find ways to extend the ultimate date which is the year 2005. No matter what the decision, it will have strong repercussions on the future of the automotive industry in Malaysia as well as the entire economy.

Thus, the future of Malaysia's auto industry is an intriguing issue for a master's thesis to focus on. Using one main problem and three sub-problems, we will attempt to make predictions in a very dynamic environment and create value for any company that may be looking to enter this dynamic protectionist market.

1.2.2 Problem Statement

With the problem discussion and background in mind, we can state the following main problem:

Taking into consideration the dilemma in 2005, what is the most-likely scenario for the future and what will be its effects on the key players in the Malaysian automotive industry?

1.2.3 Research Problems and Areas of Investigation

To give us an extensive picture of the situation of the automotive industry in Malaysia, we have added three sub-problems that will assist us in answering the main problem. In order to predict the future, we must first know about the current situation in the industry. Hence, a first sub-problem can be stated as:

1. What is the current situation in the Malaysian automotive industry especially considering government protectionist barriers?

As the first sub-problem states, the government and politics play a crucial role in the Malaysian auto industry. Factors must be identified that will affect the government's decisions over the next 4 years. Both external factors will be considered. Therefore the second sub-problem can be stated as follows:

2. Which factors should be considered when predicting the future in the Malaysian auto industry?

Finally, we will develop scenarios for the crucial year of 2006 through the last sub-problem. The most likely scenarios for the situation are needed in order to come to a decision of the most appropriate one. The results of the previous two sub-problems will be used in solving the third problem.

3. What are the possible future outcome of the Malaysian automotive industry?

The sub-problems will be solved in order as the reader progresses through the thesis. Sub-problem one will be based on a model we have developed (chapter 3) and the answer to the problem is essentially the entire empirical results chapter (chapter 4) as well as the first part of chapter 5. Sub-problem two is also answered in chapter five, which is the analysis of the current situation and analysis of influential factors. The third sub-problem fits in the middle of chapter five, scenario development. The remainder of chapter five will be devoted to choosing one appropriate scenario and determining the effects of this scenario on the actors in the industry, which is actually the answer to the main problem. As a bonus to the research, implications for a foreign multinational company that is contemplating entering the Malaysian auto industry will be assessed in chapter six, which contains the conclusions of the thesis.

1.2.4 Purpose

The primary purpose of this paper is to come up with an educated prediction of what will be the future of the automotive industry in Malaysia. By first generating new knowledge through developing a protectionist industry model, the current situation in the industry will be assessed. By explaining and analyzing the current situation and identifying the key actors in the industry, we will develop a basis for scenario development in a protectionist industry. This analysis will be done largely from the perspective of a foreign company taking into consideration the government's pro-active role.

The development of scenarios will ultimately lead us to a selection of one specific scenario. This choice of scenario will be based on both the empirical findings and the analysis of these findings. The chosen scenario will then be used to predict the effects of the scenario on the main dimensions in the industry. Finally, some implications for our exemplar company, ThyssenKrupp AG will be addressed.

1.3 Research Delimitations

This study is focused on predicting the future for the protected Malaysian automotive industry. However, as there are in most research studies, there are a few limitations to our research as well. These limitations are needed in order to be specific in the scope of our research and avoid going off track.

The authors intend the term "automotive industry" to mean passenger vehicles, commercial vehicles, 4x4 vehicles, automotive-related components, and light and medium sized trucks (up to 5 tons in weight) all of which will be covered in this report to some extent.

Not included in the term "automotive industry" are any type of two-wheel vehicles (motorcycles) and heavy trucks (weight greater than 5 tons). Busses fall on the line of our definition of what we will consider as part of the automotive industry. Therefore, busses are dwelled upon very briefly in the sections of their respective assemblers.

The automotive components focused on in this report are those products that are steel-related. This is because companies within our partner company, ThyssenKrupp (outline in the following section) produce mainly steel-related automotive components. This will help us to remain focused on this segment.

One final delimitation is that we have not thoroughly focused on cultural aspects. Although cultural barriers are included in our protected industry model, time and space constraints have forced us to omit a detailed analysis of the cultural factors affecting potential entrants to the automotive industry.

1.4 Our Exemplar Company – ThyssenKrupp AG

ThyssenKrupp AG is a global company with more than 193,000 employees on all five continents. In its three main areas of activity Steel, Capital Goods, and Services, ThyssenKrupp (TK) possesses valuable expertise along the entire value chain.

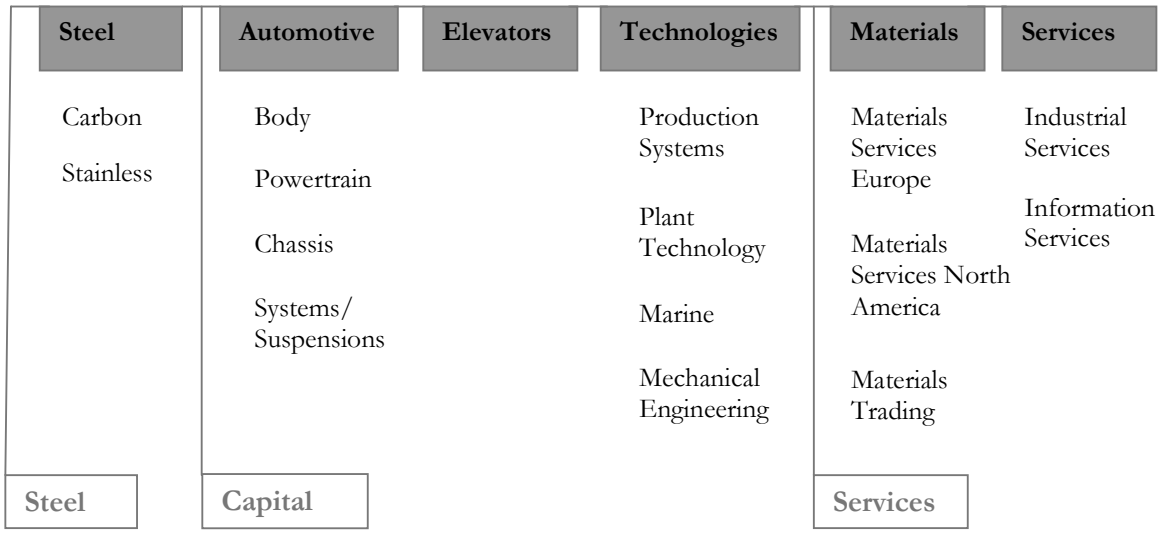
The Group consists of more than 700 companies, with strong positions on the European and North American markets. However, a further leap lies ahead as it seeks to invest in the growth markets of tomorrow - Southeast Asia, Latin America, Central and Eastern Europe. These are regions offering huge growth potential and entry will be essential for future success.

ThyssenKrupp consists of six operating units – Steel, Automotive, Elevators, Technologies, Materials, and Services. The structure of ThyssenKrupp AG is displayed in figure 1 on the following page.

Acquisitions are driving the globalization of the group in all areas. In the past year alone, TK Steel acquired two French companies to expand its service center network. TK Elevators purchased companies in the USA and Brazil to become the world's third largest elevator manufacturer. TK Materials further expanded its international service business with acquisitions in Germany and the UK. Internationalization has reached a particularly advanced stage in Automotive, where 79% of sales are generated abroad and only one in four out of a total of 112 production sites is in Germany. These sites are interconnected in a worldwide

network, allowing their specific advantages to be utilized to improve productivity and optimize costs.

Figure 1 – ThyssenKrupp AG Structure



** Source – ThyssenKrupp Publication, Developing the Future.*

In implementing the Group's strategy ThyssenKrupp targets their financial resources to acquire new companies and strengthen existing subsidiaries outside Germany, taking particular care to ensure that the Group's international structure remains as simple and efficient as possible. TK has developed a new international strategy for this and appointed Group representatives for 25 countries. This worldwide network supports the Group companies in developing markets and in realizing potential for synergies and cost reduction.

ThyssenKrupp works closely with universities, research institutes, and the R&D departments of suppliers and customers. Examples of innovation in mechanical engineering include a new joining technique for car doors using 3D laser welding, and new glass fiber escalator steps. Additionally, services compose a large part of TK operations. In elevators, for example, services such as maintenance, modernization, and remote monitoring account for about half of sales.

The two operating units of TK that will most benefit the results of this study are steel and of course, automotive. In the steel sector, TK offers customers tailored solutions and high-tech products. Examples include ultra-high strength steels and

laser-welded tailored blanks for safe and lighter-weight cars. ThyssenKrupp Automotive (TKA) will be described in detail in the following section.

ThyssenKrupp Automotive

The merger of Thyssen and Krupp and thus of Thyssen Budd Automotive and Krupp Hoesch Automotive has created one of the world's major automotive suppliers. As shown previously in figure 1, TKA is organized into four operating units – Body, Chassis, Powertrain, and Systems/Suspensions.

TKA is the number eleven supplier of automotive components in the world, has annual sales of about DM 10 billion, some 37,000 employees, and over 100 production sites throughout the world. The strongest presence is in NAFTA and Europe, which account for about 45 percent of TKA sales, however TKA is continuously expanding activities to South America and Asia. TKA's broad customer base includes the "Big 3" (GM-Ford-DaimlerChrysler).

Technology and cost leadership are the foundations of TKA success. About 2 percent of annual turnover is spent on research and development such as light weighting or the use of alternative materials. As well, in order to keep costs low, TKA produces in large batches and standardizes as much as possible.

A few TKA companies that are interesting to look at as an illustration include Krupp Gerlach (crankshafts), Krupp Bilstein, (suspension), and Krupp Hoesch Federn (suspension).

Krupp Gerlach with its companies is specialized in the production of engine components for the automotive and engine industry worldwide. Products include: crankshafts, conrods, camshafts, and fuel injection rails.

Krupp Hoesch Federn is the world's leading manufacturer of automotive springs and stabilizers with 15 production sites in nine countries. Their springs can be found in all kinds of vehicles: cars, trailers, city run-abouts, 30 ton trucks, vans, buses, and even trains. KHF supplies a full range of springs in consistent, first-class quality to car manufactures worldwide. The product line includes leaf springs, coil springs, torsion bars, stabilizer bars, and full assemblies and modules.

Krupp Bilstein has been around for over 40 years and is a primary supplier of Bilstein suspension components to the automotive industry. Krupp Bilstein produces not only monotube gas pressure shock absorbers, but also single and twin tube Macpherson strut style suspensions. Today, Bilstein continues to be the leader in monotube gas pressure shock absorber technology.

1.5 Acronyms

AAI – Asia Automotive Industries Sdn Bhd

ACM – Automotive Corporation Malaysia Sdn Bhd

AFM – Automotive Federation Malaysia Sdn Bhd

AFTA – ASEAN Free Trade Area

AICO – ASEAN Industrial Cooperation Scheme

AMI - Associated Motor Industries Malaysia Sdn Bhd

AMIM – Associated Motor Industries Malaysia Sdn Bhd

AMM – Auto Manufacturers Malaysia Sdn Bhd

AP – Approval Permit

ASEAN – Association of Southeast Asian Nations

ASSB - Assembly Services Sdn Bhd

CBU – Completely Built Up (unit)

CCB – Cycle & Carriage Bintang Berhad

CEPT – Common External Preferential Tariff

CKD – Completely Knocked Down

CoE – Certificate of Entitlement

DA – Distributorship Agreement

DGC – Director General of Customs

DOH – DRB Oriental Honda

EON – EDARAN Otomobil Nasional Bhd

GM – General Motors

HICOM - Heavy Industries Corporation of Malaysia

Inokom - Industri Otomotif Komersial Malaysia

KHF - Krupp Hoesch Federn

KMA – Kinavalu Motor Assembly Sdn Bhd

LSM – Lion Suzuki Motors Sdn Bhd

MAA – Malaysian Automotive Association

MACPMA – Malaysian Automotive Component Parts Manufacturers Association

MIDA – Malaysian Investment Development Authority

MITI – Ministry of International Trade and Industry

MMC - Mitsubishi Motor Corporation

MMTA – Malaysian Motor Traders Association

MMVA – Malaysian Motor Vehicles Assemblers Association

MNC – Multinational Company

MTB – Malaysian Truck and Bus Sdn Bhd

NCA – National Competitive Advantage

NDP - The National Development Policy

NEP – New Economic Policy

OEM – Original Equipment Manufacturers

OMV – Open Market Value

Perodua - Perusahaan Otomobile Kedua Sdn Bhd

PNB – Permodalan Nasional Bhd

PONB – Perusahaan Otomobil Nasional Bhd

PROTON or Proton - Perusahaan Otomobil Nasional Bhd

PV – Passenger Vehicles

RE – Replacement

SMA – Swedish Motors Assembly

TCC – Tan Chong Consolidated Sdn Bhd

TCM – Tan Chong Motor Holdings Bhd

TCMA – Tan Chong Motor Assemblers Sdn Bhd

TCMA - Tan Chong Motor Assemblies Sdn Bhd

TK – ThyssenKrupp AG

TKA – ThyssenKrupp Automotive

TRIMS – Trade Related Investment Measures

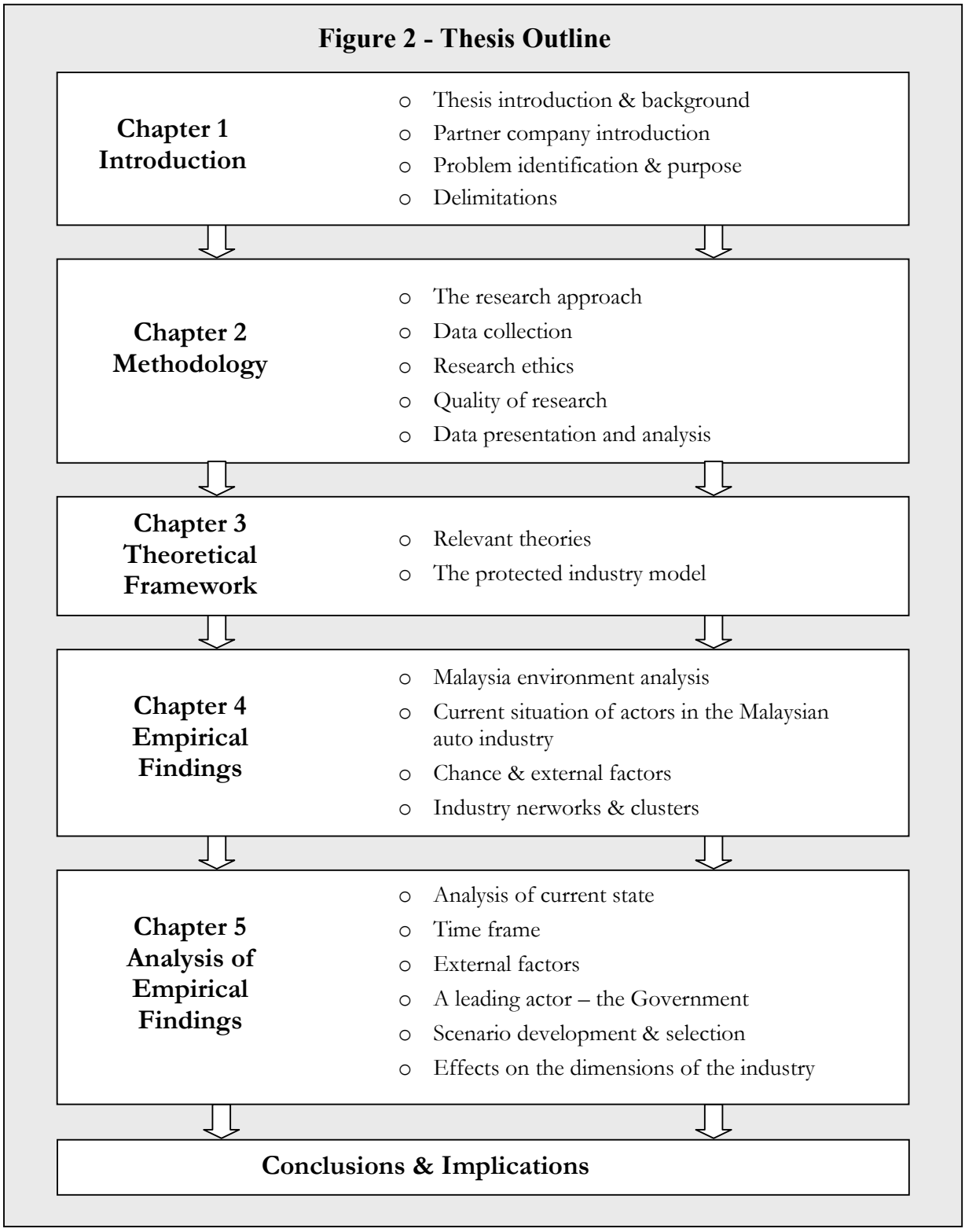
UMNO - United Malays National Organization

USF – United Straits Fuso Sdn Bhd

1.6 Outline of the Thesis

To facilitate the reading of the thesis we have illustrated its outline below:

Figure 2 - Thesis Outline



2 METHODOLOGY

This chapter will highlight the path taken through the research. As a matter of fact, a given course of action has been adopted through the diverse stages of the thesis writing. The methodology section will then expose those various steps.

The reader will be able to find within this section our choice of research strategy, the way we designed the research and the case study, and the method employed. Some words will also be given on how our data was collected, confirmed and how we assured its quality. Finally, the ethical implication of research and the way our research is organized will be the last points discussed in this section.

2.1 The Research Approach

2.1.1 Research Strategy

A proper strategy should be adopted when conducting research on a specific problem. At this level, a broad array of options can be considered. Yin (1994, p.6) proposes five different strategies that could be adopted by the researcher: the experiment, the survey, the archival analysis, histories, and case studies. The choice of one strategy over another will depend of the nature of the research problem. Making a right formulation of the research problem is then probably the most important decision of a research study.

The research problem has already been presented in chapter 1: *we are interested in the possible future outcome of the Malaysian automotive industry and its effect on the key players in the industry*. In order to fully evaluate the nature of that problem, we felt that it was essential to divide the main problem into three sub-problems: look into the current situation of the industry, identify factors that could ultimately give hints of the future outcome and find the possible range of future outcomes (scenarios).

To achieve this task, we believed that a case study would be the appropriate strategy for addressing our research problem. Only a case study strategy will allow us to paint an accurate picture of the automotive industry in Malaysia. Several authors praise the benefits of case studies when describing a particular phenomenon. Smith (1978) qualifies a case study as "differentiated from other types of qualitative research in that they are intensive descriptions and analysis of a single unit or bounded system". Furthermore, Yin (1994, p.13) defines a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon

and context are not clearly evident." This definition is applicable to our situation since the Malaysian automotive industry is a single unit (bounded system) where the boundaries between phenomenon and context are blurred.

However, case studies also have adverse effects. These could, at some moment, alter our research findings and conclusions, it is then important to briefly review the "dangers" of case studies and ensure that we will avoid them. According to the critics, the biggest concern of case studies lies in their lack of rigor. The researchers may mislead the case study as a whole due to biased findings or "selective" data, a situation that obviously leads to erroneous conclusions. This is why a methodology chapter exists within this report. Appropriate methodology helps the investigators avoid the pitfalls of bias and misleading evidence. A second worry related to case studies is that they provide little basis for scientific generalization (Yin 1994, p.10). Nevertheless, one has to be aware that it is the objective of case studies is to establish generalizing theories and not to generalize the findings as such. Hence, a research project that is well conducted can be generalized. Finally, case studies are known to be too long and unreadable documents. In our particular case, we made sure that all the time and resources needed for conducting this case study were available. Furthermore, we tried as much as possible to report the critical findings of this research in order to limit the weight of information communicated to the reader.

2.1.2 Qualitative vs Quantitative Research

The next concern of the researchers is to know whether the research should be quantitative or qualitative. The investigators may use either method as long the research is kept within the "spirit" of the problem. According to Merriam (1998, p.29), qualitative case studies can be characterized as being particularistic, descriptive, and heuristic. Under that definition, a case study applies to a specific situation (particularistic) that should be heavily described by including as many variables as possible (descriptive) and should illuminate the reader's understanding of the phenomenon under study (heuristic). On the other hand, a quantitative case study is mostly conducted in situation involving experiments and prediction whereas the main concern is to take apart a phenomenon to examine component parts.

At this point, it is particularly clear that our case required a qualitative research rather than a quantitative one. Our problem resides in describing a particular phenomenon in order to anticipate its future evolution and the repercussion of that evolution. No statistical analysis or quantitative techniques has then been

required through this research considering the nature of the problem. This research was essentially qualitative.

2.1.3 Research Design

Once the strategy is selected, an appropriate research design must be chosen. According to Yin (1994, p.19), "a research design is an *action plan for getting from here to there*, where *here* may be defined as the initial set of questions to be answered, and *there* is some set of conclusions (answers) about these questions." In its simplest form, the research design can be perceived as the "blueprint" of a research, a logic that links the data collected to the initial question of a study.

Yin (1994, p.20) identifies five important components of a research design:

- a study's question
- the proposition
- the units of analysis
- the logic linking the data to the proposition
- the criteria for interpreting the findings

We have already discussed indirectly those various components in the first chapter of this thesis. First of all, our study question, jointly with its sub questions, has been clearly identified in the introduction (chapter 1) and at the beginning of this chapter. Our main concern will be to focus on the nature of this problem. Secondly, we made clear in the delimitation section that the unit of analysis is the Malaysian automobile industry under the constraints cited previously. Following our research question, it is obvious that most of our attention will be devoted to this particular industry.

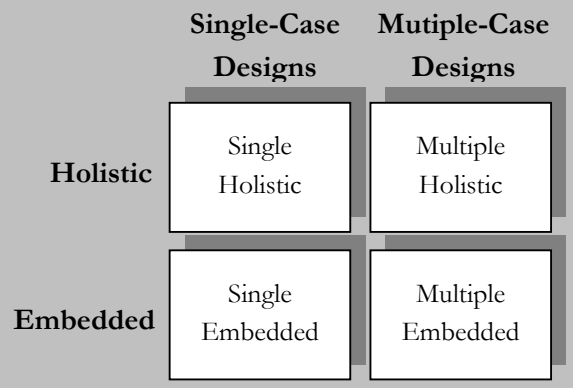
However, no particular proposition has been advanced before getting into the subject since our knowledge of the country and of the industry was not sufficient to address any proposition. It follows that no link between the data and the proposition will be established at this point. Finally, criteria for interpreting the findings will also not be stated since it is relatively hard to determine criteria for interpreting a whole industry. This is increasingly hard to achieve considering the qualitative nature of our data.

2.1.4 Case Study Design

We now know that a case study must be conducted and we are also strongly aware of our unit of analysis: the Malaysian automotive industry. However, no ideas have yet been given concerning the design of the case study in particular.

Yin (1994, p.38) distinguishes two dimensions that should be considered when designing a case study: *single* vs *multiple* case design and *holistic* vs *embedded*. The matrix shown in the figure below represents these dimensions.

Figure 3 - Basic Type of Design for Case Study



** Source – Yin (1994)*

The single case study can be used under several circumstances: when testing a well-formulated theory, when the case is *extreme* or *unique* in its kind or when the case is rather revelatory (Yin 1994, p.38-40). Case studies may also be used in other situations especially as a complement for another kind of study. Multiple cases are used in comparative purpose studies or in a situation where the researcher needs a more robust study. However, a multiple case study cannot be chosen when investigating a rare case or in a revelatory situation. The second dimension of the case study design has to do with the number of "sub-units" included in the main unit of analysis. An embedded design is adopted when several sub-units of analysis can be included within the main unit of analysis. In the case where there is solely one major unit of analysis, the proper design concerning this dimension would be a holistic one.

The advantage of a holistic design is that it is appropriate when no sub-units can be found within the main unit of analysis and especially when the theory concerned has a holistic nature as well. This type of design also has its backslash. As Yin (1994, p.42) states, it is also possible that the entire nature of the case study may shift during the course of the study. It is always possible that a different orientation may emerge as the case study is conducted. It is also tempting for the researcher to keep his/her scope of research at a more general level without really getting deep into the problem with a lack of numbers or information on the problem. Conversely, a researcher adopting an embedded design could eventually

have the problem of going too deep into the sub-units while forgetting the main unit of analysis. However, an embedded design can always prevent undesired shifts in a subject since it constrains the researcher to focus on particular points of the main unit.

Our case study consists of an embedded single case design. A single case has been chosen over a multiple case design considering the unique nature of the research problem. Our aim is to investigate the future outcome of the Malaysian automotive industry, making the investigation rather specific. A number of sub-units of analysis are however included in our case study. Those consist mostly of the various dimensions implicated in the automotive industry: the government, the car manufacturers, the related industries, the customers, the factor condition and the connections in between those different dimensions.

2.1.5 Scientific Approach

Only a basic thesis framework has been developed prior to our empirical research. The strategy and the case design were more or less apparent from the start; however, no specific theories were considered prior to our field investigation. The main reason for doing it this way is that having some models in mind could have altered our first impressions and our views of the Malaysian automotive industry. We wanted to be sure to grab every aspect of the industry and not being bound to certain elements from a pre-defined model. Our initial approach to the research problem was then more inductive. An inductive type of research builds abstractions, concepts, hypotheses, or theories rather than testing existing theory. In other words, inductive researchers hope to find a theory that explains their data. In contrast, deductive researchers hope to find data that will match a certain theory. Deductive reasoning has also been used at other levels of our research. Once the data collected, theories have been used to inspire the establishment of a proper model for describing the industry. We were back to inductive thinking when developing our own model. A shift to deductive reasoning has been adopted to report our empirical findings. In the analysis part, we frequently altered in between inductive and deductive thinking to finally use deductions to formulate our conclusions and recommendations since most of them are deducted from the models conceived through the research.

This constant variation of scientific approach is commonly known as an abductive approach. In this case both inductive and deductive reasoning are adopted in the research. Hence, an abductive reasoning has been adopted throughout this research.

2.2 Data Collection

Data constitutes the raw material of a research. Various means may be used to find appropriate data. These means can generate either primary or secondary data. Primary data constitutes data that did not exist prior to the research and has been generated while conducting the investigation. This kind of data fulfills directly the needs of the researchers. Interviews and direct observations are the main sources of primary data. Secondary data already exist but could be useful in investigating the subject under research. A number of sources are considered as being secondary data sources, most of them gathered under the "documentation" labels (magazines, publications, articles, cd-rom, etc). The various ways employed to collect data for this research will be exposed within this section.

2.2.1 Interviews

Interviews were, by far, the main mode of gathering data for this research. The sensibility of the subject studied was the main reason for favoring this mode of data collection. As one will quickly find out, the automotive industry in Malaysia remains very controversial and should be dealt with tact since a lot as to do with politics. Most of the documentation such as newspapers, report facts about the industry but those fact mostly reflects what the government wishes to hear. Interviews were then making it possible for us to find what was "in between" the lines.

There are different ways to conduct interviews; these vary along with the desired amount of structure. According to Merriam (1998, p.74), the types of interviews are found within a continuum ranging from highly structured/standardized interviews to unstructured/informal interviews. In our special case, the *semi structured* form was adopted during our interviews, i.e. that a mix of more or less structured questions was used. We found this type of interview more appropriate since the flexible structure allowed new or related subjects into the conversation more easily. Links to other subjects or to other potential interviewees could then be made. We also found that an informal atmosphere yielded more results since the interviews were almost comparable to a simple conversation, the interviewees did not feel as much stress to express their opinion as if the interview would have been more structured. However, a minimum amount of structure was provided in order to be sure that we gather and report all the data required. A number of questions were then brought to the interviews and notes were taken. No other means for registering the data have been used. We felt that the use of a tape recorder or any other device would taint the informal atmosphere we were looking

for. Nevertheless, we made sure that notes from the interview were typed into a document and kept within a database of interviews.

The selection of the interviewees is another aspect of importance in a research. The investigators must assure that the interviewees are knowledgeable about the subject under investigation in order to generate valid and reliable data. In our special case, interviews have been completed with almost all possible actors involved in our subject of study. In each situation, only specialists in the automotive industry were chosen and interviewed, i.e. representatives from national and non-national companies, franchise holders, government officials, journalists of diverse media and analysts from various securities institutions. Other interviews have been conducted in order to get general views about Malaysia, ASEAN and other related factors. Those particular persons have been selected due to the recognition they have established among the industry and/or due to their experience within the sector.

In some case, two to be specific, the respondents could be qualified as being informants considering the frequency of the exchange with them. In the case where data was contradictory or would not make any sense, those persons were reached in order to get some advice relative to the matter.

2.2.2 Observation

Observation is another source of primary data. It differs from interviews in that it consists of a direct encounter with the phenomenon under study in their natural environment. A considerable amount of valuable data can be gathered from observations. During our field trip, a great amount of observations have been completed. Hence, we have observed the situation of the cars on the road, evaluated the quality of national cars versus non-national cars and the conditions of some dealerships. These observations assisted us in getting the full picture of the phenomenon under study.

2.2.3 Documentation

Documentation was our second most important source of information. Most of our initial questions were drawn from documents dealing with the subject under study. We tried to complement our study with as much documentation as possible. Hence, a number of documents have been used to complement this study: newspaper, magazines, companies' internal communication, annual reports, previous studies made on the Malaysian automotive industry, and publications both from the government and other related organizations. Periodicals were then

bought regularly and most of our interviews were completed by requesting material related to the subject under study. We tried to register as much as possible the provenance of each document in case further questions could have been raised relative to it.

Documents were useful in several ways. First, they could provide us details that interviewees did not really want to get into for the sake of simplicity. However, those details remained important in some situations. Secondly, documents were appropriate to find the correct spelling of certain names and companies and correct titles or potential interviewees. This is increasingly important in a country where English is not the first language, even though it is widely spoken. Documents could also provide us with illustration such as figures or organizational charts that could explain a situation easier.

2.2.4 Principles of Data Collection

In order to maximize our data collection, both in terms of quality and quantity, we followed two principles of data collection: multiple sources of evidence and constitution of a database of raw information.

First, multiple sources have been used in order to diversify the risk of gathering data of poor quality. Thus, interviews were made with more than one person from the same instance as much as possible. For instance, three different analysts from securities institutions have been interviewed. Their responses were also compared to evidences from documentation and to observations to a certain extent. It has been done so not due to lack of trust but simply to assure the quality of the data gathered and to come up with a certain convergence of the evidence. The concept is also known as *triangulation*.

Secondly, as mentioned before, we tried to register as much as possible the data collected: interviews were typed and provenance of documents noted down. These notes were stored in a database for further use.

2.3 Research Ethics

We would like to recall at this point the importance of ethics while performing a research. Several parties were involved in this report. First, the interviewers (ourselves) were the ones conducting the research as a whole. Needless to say that we had, to a certain extent, all the power in terms of data research, mode of investigation chosen (who should we interview, what, when, where, and how should we ask our questions) and data reporting, our prior concern is then to give

a complete and correct illustration of the phenomenon under investigation and leave our eventual bias behind. We have to be as nonbiased, accurate, and honest as it is humanly possible in all phase of research. In planning, conducting, analyzing, and reporting his work, the scientist should strive for accuracy (Diener and Crandall 1978, p.162).

Second, ThyssenKrupp's representative office in Kuala Lumpur and Handelshögskolan i Göteborg were the clients of this report. They were the ones interested in the research. Our task was then to provide them with an accurate and complete answer to the research problem stated in chapter 1, and we strongly hope that it has been done so through this thesis.

Finally, ethics should be observed especially when dealing with the interviewees. Respect should be devoted to the interviewees since they provide the researchers with valuable data. Merriam states four privileges that should be respected when conducting interviews for research purposes: "the protection of subjects from harm, the right to privacy, the notion of informed consent, and the issue of deception"(1998, p.213). Thus, we made sure that most of those points were respected as much as possible. Through our research, we made sure that the clients of the research and the purpose of our investigation were clearly identified. Our primary concern was to inform the interviewees what they were getting into when participating in an interview with us. No pressure was exerted on the participants relatively to certain questions, and the participants had the total freedom to keep their views for themselves when necessary. Finally, the identity of the interviewees and/or some of their answers have been omitted from this report as a method of protecting the persons that agreed to share sensitive information with us on the condition that they would remain anonymous.

2.4 Quality of the Research

A research without data of good quality is a research without any value. Certain measures must be considered and taken by the investigators during the investigation in order to be able to trust the research findings. We shall then conduct three tests in order to confirm the quality of our research. Those three tests have been included into the two following sections: validity and reliability.

2.4.1 Validity

Validity can be tested at two levels: internal validity and external validity. Internal validity is concerned with the question of how research findings match reality (Merriam 1998, p.201) or, in other words, if our findings are an appropriate

abstract of reality. These findings are of two natures: empirical findings and theoretical findings. The validity of both aspects must then be assured.

Several steps have been taken to maximize the internal validity related to empirical data. One of the prime methods used was triangulation as discussed before in the data collection section. Multiple sources were used to get a broad perspective of the situation. Furthermore, both researchers conducted most of the interviews together and clarifications were requested when required in order to assure the correct interpretation of the data transmitted by the interviewees. The same method was used in reporting the data to the case study. A third participant was also included when interpreting the data gathered. Considering that this participant was not directly involved in the research, it constitutes another way or reducing the bias from the researchers. An additional tactic used was to request the interviewees' impressions on our perception of the information gathered. A copy of our findings has been sent to each participant in order to assure the internal validity of the data presented. Finally, each interview has been carefully typed once completed in order to reduce the adverse effect bias and bad memory. Considering all those measures, we consider our empirical findings as being valid. We believe that the same holds regarding the validity of our theoretical findings. The models constructed in our research are mostly based on theories and frameworks that are widely used in the field of business administration and have been recognized as being a proper representation of their phenomenon of study. We are also convinced that these constructs (our own models) are appropriate in representing the reality since they have been constructed essentially to give a better image of the situation, i.e. to respect the substantiality of the subject under investigation.

External validity is the second level that should be considered in the validity segment, "It is concerned with the extent to which the findings of one study can be applied to other situations" (Merriam 1998, p.207). It is to know if the findings of the research can be generalized in order to use them in similar cases. Critics typically state that single cases offer a poor basis for generalizing considering that certain factors are highly case specific. This was also a concern toward case studies as a whole, as we have seen earlier in the research strategy section. However, as Merriam (1998, p.208) puts it, "a single case is selected precisely because the researcher wishes to understand the particular in depth, not to find out what is generally true about the many."

Recalling the fact that this case study is designed under a single case basis due to its unique nature, it is hard to test it through by replicating our empirical findings to other similar cases. We have mentioned before that the conditions of the empirical findings are specific to Malaysia, making it impossible to generalize our empirical findings to a broader level. However, theoretical findings could always be used on similar cases. Similarities could be found with automotive industry from other countries or even with industries other than the automotive industry. Part of the findings could then be brought to a universal level even if the empirical findings remain exceptional in their nature. Additionally, the description of the case has been done as comprehensive and substantial as possible. The reader will then be able to determine how close the situation of the unit under study relates to similar cases, and thus, determine if the findings can be transferred.

2.4.2 Reliability

The test of reliability is one of the most classical ones in qualitative research. Reliability in a research design is based on the assumption that there is a single reality and that studying it repeatedly will yield the same results (Merriam 1998, p.205). Put another way, the objective of this test is to assure that, if an investigator followed exactly the same procedures as described by another investigator and conducted the same case study all over, the same findings and conclusions should be reached. An assumption should however be supplemented to that statement. It should be stipulated that the second investigator should follow the same procedures and at the same time. This distinction is required in our case since the evolution in time of the case under study will highly influence the findings of an investigator. A later investigator would not reach the exact same conclusions since the case would have evolved to a certain extent.

Several steps have been taken in this research in order to assure the reliability of the information gathered. First, as mentioned in the internal validity section, multiple sources of information have been used. Every data was verified via another industry observer as far as possible to assure its reliability. In most cases, facts remained consistent. Secondly, interview dates were written down and the interviews themselves were typed and kept within a "database." Documents gathered through those interviews were also registered relative to their nature and origin. Every effort has then been given in order to make this research as reliable as possible.

2.5 Data Presentation and Analysis

Several steps have to be considered when gathering and analyzing the data. We will quickly illustrate in this section how we have been through these steps.

We noticed from the start that a considerable amount of information would be collected during our investigation. Groups were created both by following our views on the Malaysian automotive industry and those of our interviewees. The categorization of the primary data was then organized according to the following topics: global automotive industry, the Malaysian business environment, the automotive industry in Malaysia, national car companies, non-national car companies, components manufacturers, and ASEAN. It has been done so to, first of all, reflect the purpose of the research and also to provide an exhaustive categorization of the data. The information was categorized as we were going through the data collection process. Following the gathering process, we made a basic compilation of all data collected. Every data considered of importance were compiled into a thick document that could be further used as a *database*. Categories within the *database* remained more or less the same as the ones used during the categorization of the primary data.

Subsequently, extensive industry data was collected and, together with the various theories contained in the theoretical framework, helped us in the creation of a model, the protected industry model. This model was the basis in reporting our empirical findings and in analyzing the data. The empirical findings were classified under the following headings: Malaysia, core product manufacturers, related industries, government, customers, factor conditions, chance and external factors, industry network and structure and ASEAN.

The analysis has been done mainly following our main research problem and its sub-problems. We shall look at the current position of the leading dimensions governing the industry, events that could indicate how the industry will evolve and the various possible outcomes that could eventually arise in that section. All this will be achieved to ultimately find the future outcome of the industry and how each of the actors will be affected by the new conditions.

We will make a brief wrap up of our findings in the conclusion. Critical points regarding each of the sub-problems and the main problem will be exposed. We will also include a brief section regarding our theoretical findings and general recommendations for a company interested in the subject such as ThyssenKrupp. Areas for further research will finally be given in the last part of this report.

3 THEORETICAL FRAMEWORK

The following section will expose the various theories that we refer to through our research. The concepts mentioned are more or less respectively used to: evaluate and map a business environment, illustrate the connections between the various actors, define the government and barriers imposed on an industry, define the level of development attained in an industry, and finally to make predictions.

The base model that we have selected is the Porter diamond model. Many other models will be used as extensions to Porter's framework. The second most influential model for our purposes is Jansson's institutional model. Jansson's institutions model acts as an excellent addition to Porter's diamond model because it supplements important business environment aspects to Porter that focuses on national competitive advantage that emerge from certain industries. Grant's industry life cycle model and Dicken's ideological type framework will be used as another extension to Porter's. Both theories will be used to provide depth to some in evaluating the current situation of the industry.

Porter's industrial clusters will be linked with Jansson's network model to describe the connections that relate to Malaysia's automotive industry. Both models are rather complementary.

The last part of this chapter will be devoted to a construct of our own, which is known as the protected industry model. The model is influenced by some of the theories that shall be described in this chapter. Such a model has however been built because we felt it would be more appropriate for us in pursuing our investigation in order to eventually respond our main problem.

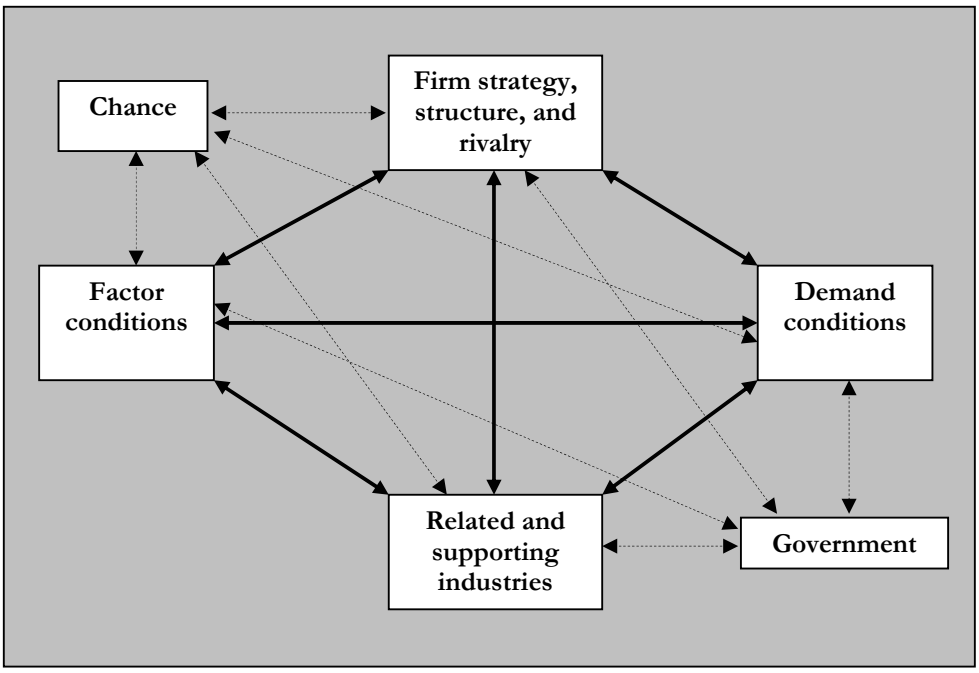
3.1 Porter Diamond Model

The Porter diamond model helps to explain why a nation is a desirable *home base* for competing in an industry. A *home base* would be a platform for local strategy in the protected auto industry. Advantages could also be drawn from the local market and could be supplemented by those from an integrated, worldwide position. Porter's diamond is useful for us because it uses the perspective of the nation and national competitive advantage, and focuses less on the firm. Therefore, the Porter diamond model will be useful in helping us to assess the industry environment.

According to Porter (1990), a firm will be most likely to succeed in industries or industry segments where the national "diamond" is the most favorable. Porter

argues that comparative advantage can no longer be seen as 'divine inheritance' and that international success in a particular industry is determined by four broad mutually reinforcing factors which create an environment which enables these firms to compete. The four include: factor conditions, demand conditions, related and supporting industries, and firm structure, strategy and rivalry. It is important to note that the diamond is a system in which the role of any determinant cannot be viewed in isolation; all are interconnected. In addition to these determinants the nation's government and chance events influence the situation. Porter's Diamond model is illustrated in figure 4 below.

Figure 4 - National Competitive Advantage: the Porter Diamond



** Source – Porter (1990), The Competitive Adcantage of Nations, p. 72.*

3.1.1 Factor Conditions

Porter defines factor conditions as the nation's position in factors of production, such as skilled labor or infrastructure, necessary to compete in a given industry (Porter 1990, p. 71). Factors can be grouped into a number of broad categories that include human resources, physical resources, knowledge resources, capital resources, and infrastructure (Porter 1990, p. 74-75).

Factor conditions within a country are a combination of *given* and *created* factors. Porter divides factors conditions into basic and advanced, generalized, and specialized. Basic factors such as natural resources, climate, and un/semi-skilled labor are *passively inherited* while advanced factors such as modern digital data communications infrastructure or university research institutes in sophisticated disciplines are those whose development demands large and substantial investment in human and physical capital.

The distinction of *generalized* versus *specialized* is based on their ability to perform tasks. Generalized factors (for example the highway system, a supply of debt capital, or a pool of well motivated employees with college educations) are available in most nations. They can be sourced on global markets and their activities can be performed at a distance from the home base, whereas specialized factors (narrowly skilled personnel, infrastructure with specific properties, and knowledge bases in particular fields) are developed with considerable investment from the generalized factors.

Porter evokes that sustainable competitive advantage exists when a nation state possesses the factors necessary to compete in particular industry, which are both advanced and specialized.

3.1.2 Demand Conditions

Porter's demand conditions for an industry's product or service are best outlined through the measuring of four specific factors: 1) Composition of demand, 2) buyer sophistication, 3) size and growth of demand, and 4) internationalization of demand.

Home demand shapes the rate and character of improvement and innovation by a nation's firms. Nations gain competitive advantages if home buyers pressure local firms to innovate faster and achieve more sophisticated competitive advantages compared to foreign rivals (Porter 1990, p. 86).

The composition of home demand is that it usually falls into segments. One large industry may be many parts of smaller industries. For example, the automotive industry may include actual automotive producers, auto parts producers, production machinery companies, logistics companies, etc.

The quality of home demand is more important than the quantity of home demand in determining competitive advantage (Porter 1990, p. 86). High-quality or *sophisticated* domestic market demand is an important element to producing competitiveness. Firms that face a sophisticated domestic market are likely to sell

superior products because the market demands high quality and a close proximity to such consumers enables the firm to better understand the needs and desires of the customers. Additionally, more sophisticated buyers are often early adopters of a new product or service. A good way to see that a nation's buyers are sophisticated is national passions, camera for the Japanese and cars for Germans for example.

Porter (1990, p. 93) states that a large market size can lead to competitive advantage in industries where economies of scale and/or economies of learning are important. However, firms must be careful to not rely too heavily on national investment in large-scale production, productivity improvements, or technology development unless there are barriers limiting exports. Local firms in a country can serve the home demand much easier than foreign firms because of similarities in language, religion, culture, etc. and home demand is much easier to forecast than foreign demand.

Another category of local demand is the degree to which it is or can be international. If that nation's buyers of a product are internationally mobile then the buyers will be both foreign customers and domestic customers.

3.1.3 Related and Supporting Industries

The presence or absence in the nation of supplier industries and related industries that are internationally competitive is known in the Porter diamond as related and supporting industries (Porter 1990, p. 71). Firms in a supplier industry may give competitive advantages to firms in many other industries because they produce inputs that are widely used. If a close working relationship between companies within an industry is present, an ongoing coordinating process of innovation and upgrading will result where access to information, new ideas, insights and innovation will occur (Porter 1990, p. 103).

Related industries are those that may share activities in the value chain or those which may have complimentary products. If competitive advantage exists in related industries then opportunities abound for positive interchanges and new opportunities are continually perceived (Porter 1990, p. 105).

Consequently, firms within industries that have related and supporting industries which share crucial activities or are important to innovation in the industry will have a competitive advantage over those that do not.

3.1.4 Firm Structure, Strategy, and Rivalry

Porter (1990, p. 71) refers to firm structure, strategy, and rivalry as the conditions in the nation governing how companies are created, organized, and managed, and the nature of domestic rivalry. Firm structure, strategy, and rivalry also include the goals of individuals, the goals of a company, the importance of sustained commitment, and the influence of national prestige/priority on goals.

Generally, the way firms are organized and managed is influenced by national circumstances. A few examples of national circumstances include attitudes towards authority, professional standards, relationships between workers and management, and norms of interpersonal interaction. These circumstances stem from the educational system, social and religious history, family structures, and many other country-specific factors.

Vigorous domestic rivalry is strongly associated with competitive advantage in an industry and success does not grow from one or two firms experiencing economies of scale due to their dominance of the market. Only in a closed economy will dominance be profitable. Government policy frequently plays a role in influencing the ease or difficulty of internationalization of domestic firms and the type of industries in which they succeed. (Porter 1990, p. 110)

Porter (1990, p. 118) believes that domestic rivalry creates pressure on firms to innovate and local firms push each other to lower costs, improve quality and service, and create new products and processes. This in turn pressures domestic firms to compete globally in order to grow. He goes on to say that domestic rivalry also leads local competitors to imitate new ideas and the whole industry benefits from overall industry innovation.

3.1.5 Government

The role of government in Porter's model is to influence the four determinants through its policies. Government policy, in turn, can be influenced by the four determinants. Porter sees government as merely an "influence" on his four determinants, not a central factor.

Porter (1990, p. 128) argues that Government policies that artificially create a national competitive advantage and/or 'assistance' that removes the pressure on firms to improve and upgrade are counterproductive. He states these policies will fail because they create a competitive advantage which is unsustainable in the long run due to the pressures of the market and continuous innovation. The

Government's role, he states, is to reinforce determinants not to create competitive advantage.

The government can hasten or raise the odds of gaining competitive advantage; but if regulations lead to unusual or anachronistic demand that distracts local firms from serving international markets, the role of the government is negative.

3.1.6 Chance

Chance events may also affect the national system in ways that are uncontrollable and play their major role by partly altering the conditions of the diamond. Chance events include such things as pure interventions, breakthroughs in basic technologies, wars, external political developments, and major shifts in foreign market demand.

3.2 Jansson's Institutions Model

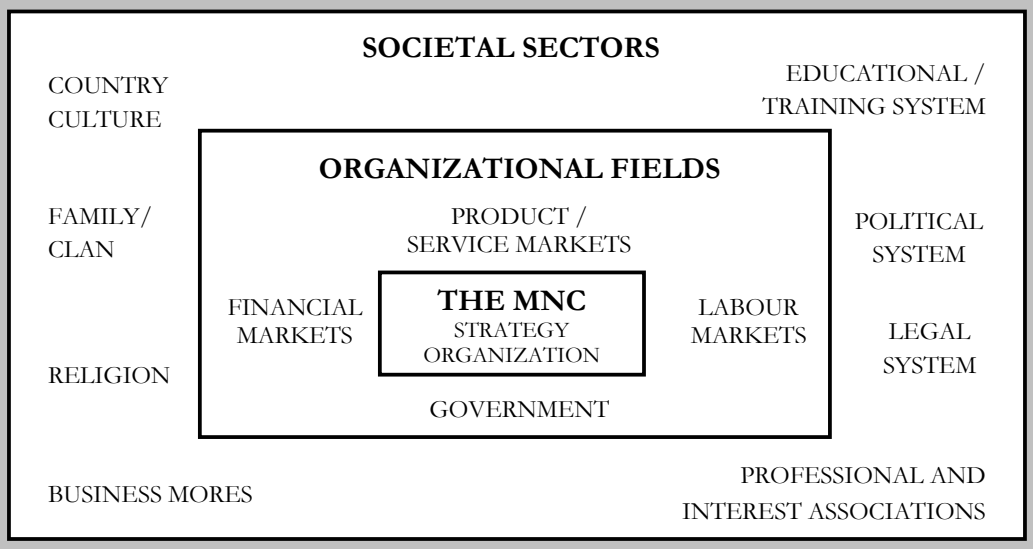
Appraising the business environment is one of the primary tasks of this research. Where Porter's diamond helps us more in assessing the industry, Jansson's (2000) institutions model gives a strong insight on the business environment of a certain system such as a country or a region. This model was preferred to others due to its comprehensive nature. In our view, the institution model of Jansson's (2000) remains more extensive and complete than other similar models. For instance, models such as the PEST model or the STEP model are rather general, increasing the chances to forgo important aspects or even institutions of the environment under study. Therefore, we believe that a model that provides a more defined framework will yield better results in this research than one with a general perspective.

3.2.1 The Rationale behind the Model

In introducing the model, Jansson (2000) emphasizes the importance of addressing the environment within which an enterprise operates. This shall be done in order to identify the "rules of the game" prevailing in the environment. The words "rules of the game" are used here but several expressions such as habits, routines, procedures, and conventions are just as appropriate. What matters is that parts of those *rules* are written but most of them remain implied. Members of the system behave according to those conventions which can be traced back as far as the history of the system is concerned. Hence, the problem resides in identifying and understanding those various *rules*. Jansson's (2000) approach towards the issue is that those *rules* originate from sources that can be

organized into different institutions. Furthermore, the processes regarding how they form, change, and disappear are defined as institutionalization. Three features describe institutions. First, they are characterized by their rule-like or organizing nature. Secondly, they facilitate and constrain the relations among individuals and groups. Finally, institutions are signified by predictability (Jansson 2000, chapter 1 p.10). Institutions standardize behavior and transfer rules, norms, and ways of thinking between individuals. However, the conventions are not consistent within the society; different social groupings exist within a society with their own set of rules. Jansson (2000) illustrates those groups in his basic institutions model (refer to the figure below).

Figure 5 - Jansson's Basic Institutions Model



** Source: Jansson (2000)*

It should be kept in mind that those institutions are not isolated from each other; the agents are rather influencing each other. All together, they form the business environment within which the MNC operates. Noteworthy to add is that the MNC also finds itself among the institutions and sooner or later it may be able to have some influence.

3.2.2 Levels of Institutions

It can be observed in the basic institution model, that institutions are presented according to three various levels: the societal sectors, the organizational fields, and the MNC. Those levels are also known respectively as the macro-institutions, the meso-institutions and the micro-institutions. The institutions have been organized this way in order to take account of their capacity to influence the business

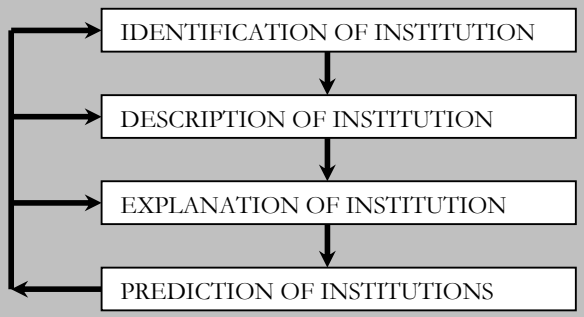
environment. The societal sectors are characterized by their unidirectional influence, i.e. this level does not receive any influence from the MNC itself. The organizational fields distinguish themselves at this level since an interchange can be found among the different institutions, thus, the influence goes in both ways. The MNC is then able to participate more directly into the organizational fields since it is part of them.

The components of each level are illustrated in figure 5. Further details regarding certain institutions shall be given in order to fully understand their role. First, it might be confusing to distinguish the political system from government, but the distinction remains considerable. Political system stands for the regime in place and the ideology behind it whereas the government, as an organizational field, stands for the various governmental authorities and organizations that an MNC is involved with. Noteworthy to add is that the government can be present at various levels (federal, state, province, local, etc.) Secondly, product/service markets are an amalgam of customers, competitors, and suppliers, most of them having direct interest into the MNC's sector/industry. Finally, business mores should be regarded as business practices prevalent within the business environment.

3.2.3 Institutional Analysis

The institutional model itself does not create enough knowledge to evaluate a given external environment. This knowledge will be generated through analysis. According to Jansson (2000), the process of institutional analysis is divided into four stages. These stages are illustrated in the figure below.

Figure 6 – The Four Stages of Institutional Analysis



** Source: Jansson (2000)*

In the identification stage, the environment is scanned for institutions that have the greatest impact on the MNC. In the descriptive stage, the institutions identified in the first stage are described in more detail. The explanation stage investigates the influence of the identified institutions in between each other and its influence on the MNC. Finally, in the prediction stage, efforts are given in order to foresee the situation of the institutions into the future (Jansson 2000, chapter 3 p.1).

3.3 Grant's Industry Life Cycle Model

As stated in the beginning of the chapter, the industry life cycle model has been chosen to provide depth in the analysis of certain aspects of the business environment. The models seen previously are rather static and lack the capacity of illustrating the evolution of the phenomenon under study, or at least, some part of it. The industry life cycle model adds a time dimension to our view of an industry. Evaluating the subject from a different angle could provide us with interesting data.

It can be observed that every industry develops itself in a unique way. However, as Grant (1998, p.242) puts it, it is possible to detect some typical patterns that are the result of common driving forces. Those similar patterns have been grouped together in order to provide the industry life cycle model.

The industry life cycle is the supply-side equivalent of the well-known product life cycle, but is usually of longer duration. The life cycle is divided into four stages: the introduction, the growth, the maturity and the decline stage. Two important factors mostly drive the evolution of an industry through those stages. First, as the demand increases, more producers are attracted by the industry, it follows that the price pressures become more and more intense. The growth of the demand (sales level) is then one of those factors. Second, the production/diffusion of knowledge is also pushing an industry through its evolution. As the technology development augments, a shift from product innovation to process innovation can be observed.

General observations on the life-cycle pattern have also been reported. First, the duration of life cycles varies from industry to industry. Furthermore, industries differ in their patterns of evolution, for instance, necessary goods may never enter the decline stage. Finally, it is possible that an industry will find itself at different stages of the life cycle in different countries.

3.4 Porter's Industrial Clusters

Industrial clusters are useful in showing the relationship between firms in an industry as well as in related and supporting industries. Porter's theories will prove to be useful in mapping the Malaysian automotive industry and illustrating any clustering that has taken place.

Porter (1990) believes that nations succeed not in isolated industries, but in *clusters* of industries connected through vertical and horizontal relationships. Therefore, an economy is composed of various clusters of industries whose makeup reflect economic development. These related industries are linked in many ways through relationships. One industry helps to create another in a mutually reinforcing process. Benefits flow forward, backward, and horizontally.

The systemic nature of the Porter diamond actually *promotes* the clustering of a nation's competitive industries. A nation's successful industries are usually linked through vertical (buyer/supplier) or horizontal (common customers, technology, channels, etc.) relationships (Porter 1990, p. 148-149).

Porter (1990, p. 153) outlines motivations behind clusters that serve as facilitators of information flow and sources of goal convergence. Among others, these include: personal relationships, ties through professional associations, trade associations encompassing clusters, common ownership within an industrial group, ownership of partial equity stakes, interlocking directors, and national patriotism.

Many industrial clusters are geographically concentrated. Concentrations of domestic rivals are often surrounded by suppliers and located in customer rich areas that have excellent systems of information flow. Proximity increases the concentration of information and the speed of information flow.

Porter links the industrial clusters to the diamond stating that the reasons for a particular city or region to have an industrial cluster present are determined through considerations of the diamond such as cultural, political, or cost advantages. Many clusters tend to form around specific locational advantages such as: a concentration of sophisticated buyers, a well-developed local supplier base, or a more-advanced logistics system.

3.5 Jansson's Network Model

The network model of Jansson (2000) has been chosen to study relationships between various actors. The model will help us to better define the interactions between the actors found within an industry. We thought that this aspect was slightly left behind in Porter's clusters. The nature of network described by Jansson's (2000) can thus help us to decide on clusters described by Porter.

The detailed approach of the network model was one of the prime reasons for choosing it. Porter's industrial clusters cover one aspect of relationships but it does not go deep into the nature of relationships. The organizational approach adopted by Jansson also contributed to our choice since it is easier to relate it to the phenomenon under investigation than if we would use another model that focuses more on social science as a whole. Finally, we had to consider the fact that the network model of Jansson was, obviously, sharing some affinity with the institutions model, which is used in this research.

3.5.1 The Basis of Network

A relationship is the main constituent of a network. It consists of a link between different systems (organizations, persons, objects or events). Different types of relations identify different networks. Jansson (2000) labels the terms relationships and systems as linkage and nodes. These elements constitute the foundations of a network.

A main division is made between intra-organizational linkages (relation within a particular organization) and inter-organizational linkages (relations between distinctive organizations). As Jansson (2000) terms it, the main difference seems to lie in how independent the connected organizations are. However, for the purpose of our research, the focus will be kept towards inter-organizational linkages.

3.5.2 The Model

The trans-organizational network theory helps to better define the nature of the linkages (relationships) of a network. The dimensions included in the model are illustrated in figure 7, presented at the end of the section.

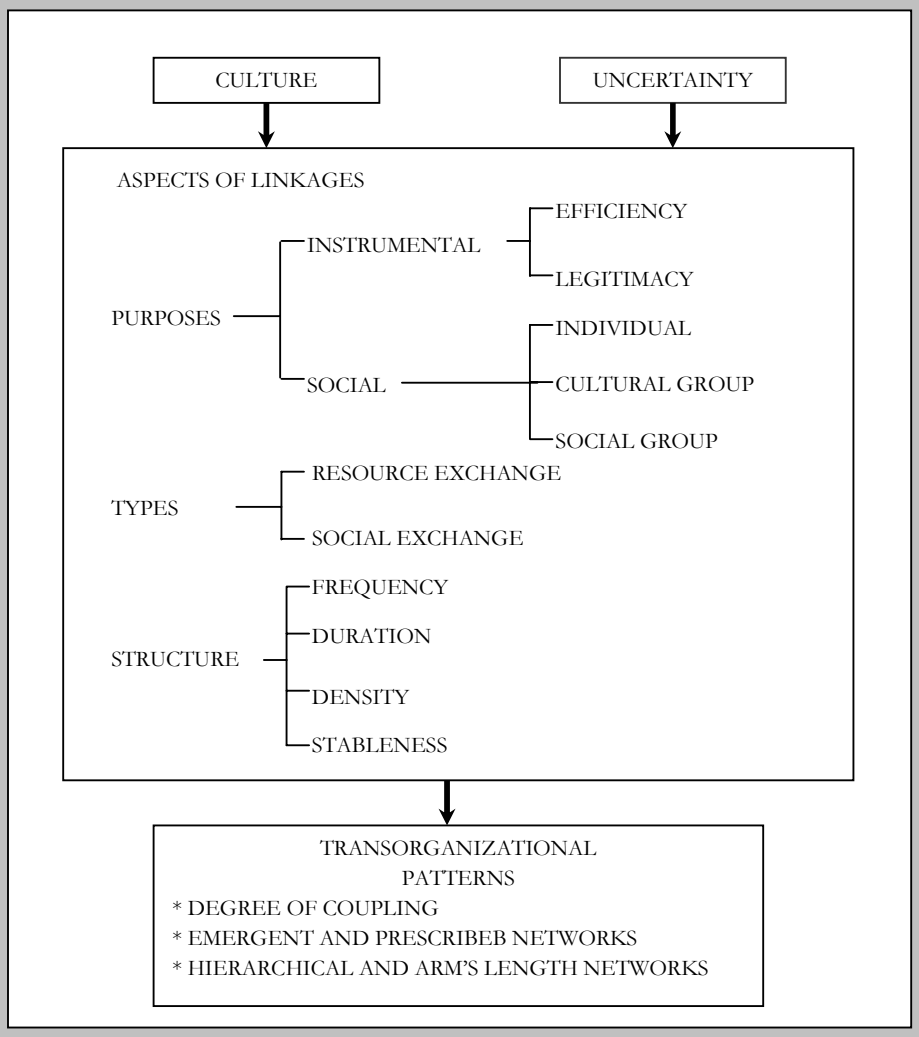
As illustrated, two factors are directly influencing the aspects of the linkage: culture and uncertainty. The culture factor is linked to the institution model seen previously. The societal sectors and organizational fields of a given system are thus influencing the nature of the linkages. They constitute the environment within which the linkage is taking place. Uncertainty is the second influencing factor. A

relationship is achieved to reach a given objective. This situation creates a dependency on other units since the contribution of these units is required in achieving the objectives (or strongly helps). An environment with low uncertainty will most likely be based on rules and procedures whereas high uncertainty leads to the formation of "cliques," people that keep themselves together because they like each other (e.g. family, friends), in order to reduce the risk associated to a disrupting linkage. The probability of a link failing is perhaps the best way to evaluate the stability (uncertainty) of the network.

Subsequently, three aspects are considered in defining the nature of the linkage: purpose, type, and structure. The *purpose* of the linkage deals with the reasons the nodes are connected. It can be done voluntarily (on a mandated basis) to increase the efficiency or the influence of the organization (instrumental purpose) or simply for social reasons (individual attributes, belonging to the same social group or belonging to the same cultural group). Second, the type of linkage is characterized by the *content* of the linkage. The content can either be resources, such as material resources (products, gifts, etc.) and cognitive aspects (information, intelligence and ideas), or feelings (social exchange). The third aspect, *structure*, deals with the shape of the network and includes aspects such as frequency, duration, density, and stableness of the linkage.

Finally, the trans-organizational network theory explains how the three factors seen previously are interconnected; this is typified through the trans-organizational patterns. Those patterns are a result of certain linkage aspects combinations (as illustrated in the figure seen previously). The degree of coupling is the first pattern to be considered. The parts within a network can be tightly or loosely coupled (joined). Subsequently, the network can be *prescribed*, i.e. originate from formal organizational processes or *emergent* (formed through informal processes). Finally, a distinction is made among hierarchical networks, where a formal authority can be observed, and an arm's-length network characterized by a lack of formal authority among the various units.

Figure 7 – The Transorganizational Network Theory



** Source – Jansson (2000)*

3.6 Dicken's Ideal-Type Framework

An ideal type framework is a construction made by Dicken (1998) and based on material from various other authors. The framework provides the reader with a typology of national economic-political systems. We feel that such a typology is required in this research in order to better define the nature of the state(s) under investigation. Hence, the framework shall provide more depth to the government dimension under Porter and Jansson. This is increasingly important in a situation were the government seems to have a strong influence on the state, and also on certain industries. According to Dicken (1998, p.88), a mix of different factors will influence the policies adopted by a state: the nation's political and cultural

complexion, the strength of its institutions and its interest groups, the size of the national economy, the nation's resource endowment (physical and human), and the nation's relative position in the world economy (including its level of economic development and its degree of industrialization). A wide variety of national economic systems result from the mix of these aspects. However, regularities can be observed through these mixes, making it possible to define the national economic systems into a simple framework (see figure 8 below).

Figure 8 - A Typology of National Economic-Political Systems

MARKET-IDEOLOGICAL STATE Driven by the "new right" economic and social policies of the 1980s. Based on a reversion to the state-civil society relations of the epoch of competitive capitalism. Policy choices based on ideological dogma.	**PLAN-IDEOLOGICAL STATE** The state owns and controls most or all economic units. Resource allocation/ investment decisions are primarily a state function. State controls redistribution of wealth/ income. Policy choices based on ideological dogma.
MARKET-RATIONAL /REGULATORY STATE The state regulates the parameters within which private companies operate. The state regulates the economy in general, but investment, production and distributive decisions are the preserve of private companies, whose actions are disciplined by the market. The state does not concern itself with what specific industries should exist and does not have an explicit industry policy.	**PLAN-RATIONAL /DEVELOPMENTAL STATE** The state regulation of economic activity is supplemented by state direction of the economy. The economy itself is largely in private ownership and firms are in competition, but the state intervenes in the context of an explicit set of national economic and social goals. High priority placed on industry policy and on promoting a structure that enhances the nation's economic competitiveness.

** Source – Dicken (1998)*

Concerning this framework, one has to be aware that the four constructs are solely guidelines that illustrate the concept better. Many versions of each quarter can be observed on the empirical field. However, it remains quite easy to relate a country's ideology to one of those illustrated in the figure above, market ideological, market rational, plan rational and plan ideological. Most of the countries in the world are currently belonging to the two bottom cells. Nevertheless, one should keep in mind that it is always possible for a state to move from one ideology to another.

3.7 Van der Heijden's Scenarios

This section will describe the scenario development theories of Kees van der Heijden and will give us a framework that can be used to predict some key scenarios and forecasts for the Malaysian auto industry. The theories are quite strategically oriented; however we will focus mainly on business environment analysis rather than the internal company strategy element while developing scenarios. Van der Heijden's methods require widespread input about the industry in question's environment, thus the previous theories are the base to provide this element.

Our predictions (to come later in this report) will then be built and structured through Van der Heijden's theories since it is better to use a structured way of predicting the future than to blindly make guesses

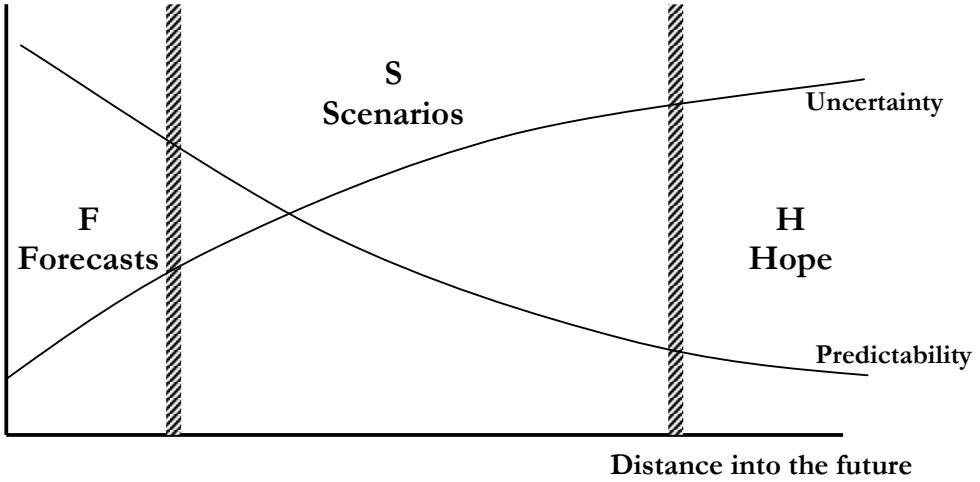
3.7.1 The differences between Forecasting, Scenario Building, and Hope

As illustrated by the figure on the next page, when one looks further into the future, the degree of predictability gradually goes down and uncertainty rises. With high predictability and low uncertainty (the first section), forecasting is the planning mode of choice. When determining the medium-term future of a business environment or an industry, scenarios are the most effective tool. In the very long term, everything is both uncertain and unpredictable and attempts to plan can only use hope.

Van der Heijden (1996, p. 93) points out that using the improper planning method can lead to problems. "Forecasting (instead of scenario planning) in the S region leads to over-planning and false security due to a discrepancy between the level of real uncertainty and perception of uncertainty. Similarly, scenario planning in the F region leads to under planning."

The distance into the future (as shown on the figure above) can be quite different in various industries and environments. One must determine exactly where to draw the dividing lines between the forecasting, scenario, and hope regions. In order to judge this, a balance between momentum and volatility must be found when you look at your specific situation.

Figure 9 – The balance of predictability and uncertainty in the business environment



** Source – Van der Heijden (1996), p. 92.*

Forecasts are very precise tools of analysis, and the more precisely we attempt to pin things down the more difficult the prediction becomes. When an industry is in a state of relatively slow incremental change forecasting is an effective way of planning. It projects the future on the basis of what was seen in the past (Van der Heijden 1996, p. 88). However, many industries and environments are very dynamic and quickly changing which makes forecasting difficult and ineffective.

While forecasts are decision making tools, scenarios are policy development tools (Van der Heijden 1996, p. 57). Scenarios are more of perception tools that allow decision makers to have a sort of *peripheral* vision. The time horizon within which a business system can actually be predictable is short, i.e. months rather than years.

3.7.2 Uncertainties

The main problem in business environment analysis is dealing with complexity. A method of deciphering the complexities is to answer the question of *what would really make a difference*. This allows for the identification of a number of key uncertainties and interpretations of what is happening. There are three types of uncertainties described by Van der Heijden (1996, p. 83-84):

1) *Risks* – Historical precedent in the form of similar events allows for prediction of possible outcomes.

2) *Structural Uncertainties* – Looking at unique events by a means of cause/effect reasoning in an attempt to judge likelihood.

3) *Unknowables* – Unimaginable events.

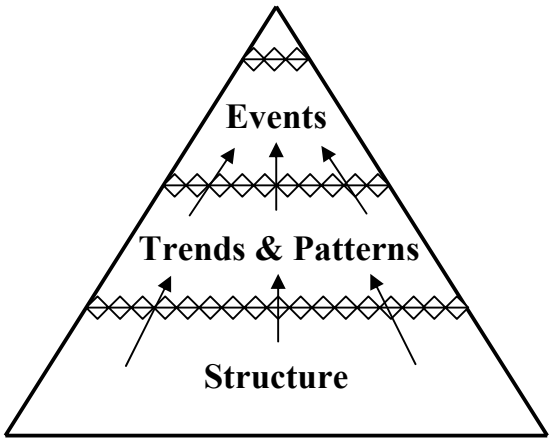
Scenario planning is most useful for analyzing structural uncertainties, i.e. when possible future events are unique and are best analyzed through cause/effect reasoning. First you must look at the fundamental driving forces and the levels of uncertainty in the environment. The way of thinking to be used is questions such as "what would happen if" and "if this did happen, what would this lead to?"

3.7.3 The "Iceberg"

Finding a structure in a range of events may not be an easy task. Van der Heijden (1996, p. 97-102) uses a characterization known as the "iceberg," which breaks down knowledge into three categories: events, pattern, and structure. At the top of the iceberg are the visible events - events that can be observed, i.e. government enacting legislation, changing policies, developments in the market, and so on.

After the visible events are discovered and identified, a scenario planner then seeks to "understand" the situation. The premise is such that the events do not simply happen at random, but they are related to each other through a structure of cause and effect relationships. As we see trends and patterns in the events over time, organized behavior becomes recognizable.

Figure 10 – The "Iceberg"



** Source – Adaptation of Van der Heijden (1996) p.98*

Van der Heijden (1996, p. 98) uses the example, "CNN provides the events, Henry Kissinger the underlying structure." Structure includes such things such as culture, policy, power distribution, regulation, technology, politics, agreements, and so on. A structure must be developed that connects the system together through casual links so it can be used to project future behavior. Taking structure and forming trends and patterns leading to events will help us understand predictable outcomes.

3.8 The Protected Industry Model

The protected industry model is of our own construct but is strongly influenced by some of the theories previously described in this chapter, i.e. Porter, Jansson, Dicken, and Grant. The contribution of each theory to our model will be commented on at the end of this section. It has been adapted to fully illustrate the implications of a protected industry and to take into account certain aspects considered to be important in this research. Thus, we have associated the model with the label "protected industry model" since it is particularly appropriate for evaluating the situation of a protected industry within a given business environment.

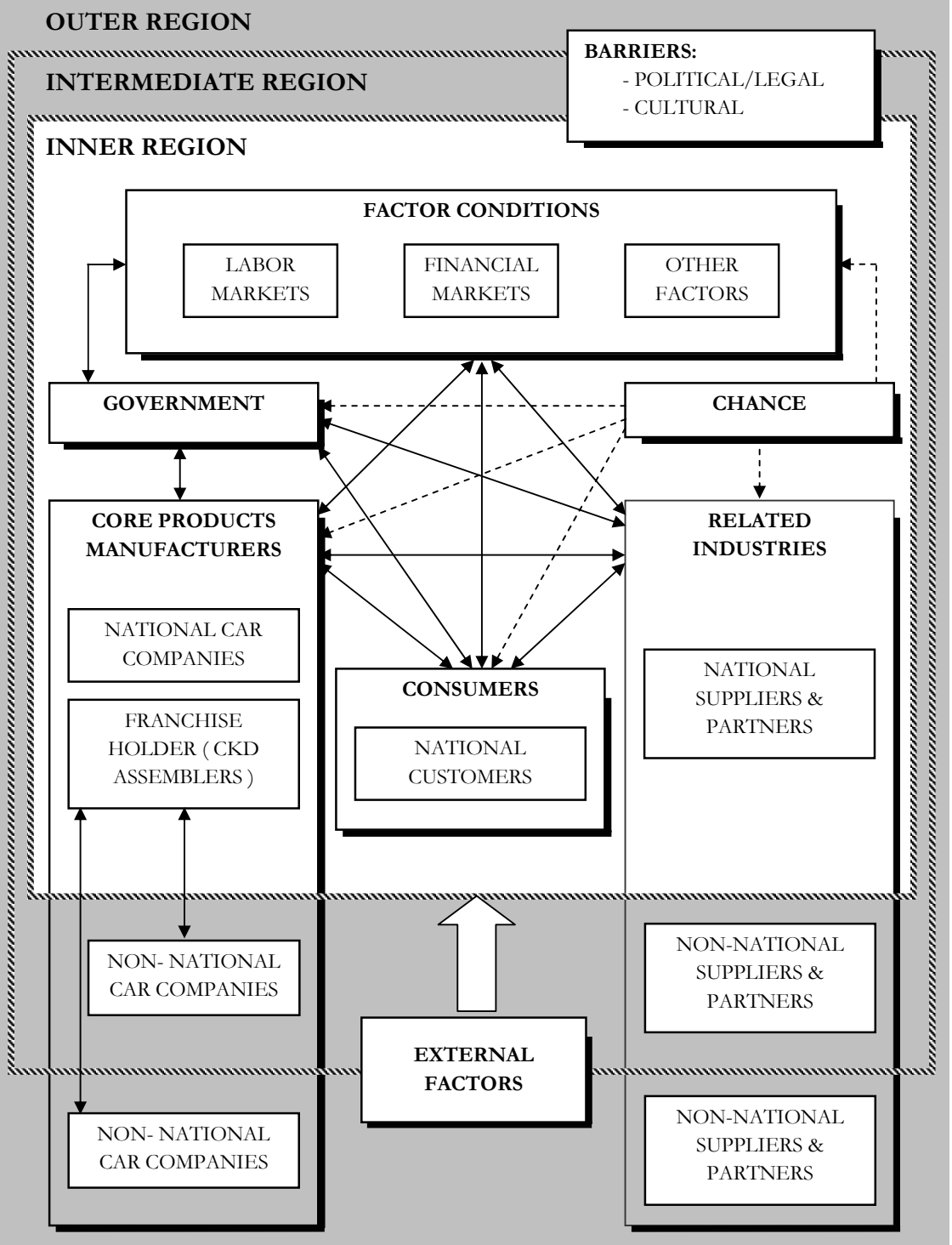
The protected industry model, illustrated on the next page, will be one of our leading frameworks throughout this research. However, since we would like to follow the structure of the protected industry model in reporting our empirical data, we believe that it is more appropriate to introduce it at this point rather than later on.

The next section will be dedicated to the explanation of the way the model functions. Given that it is inspired by the theories previously known, explanations will only be given relative to the new features of the model.

3.8.1 Objectives of the Model

The main reason for using the protected industry model is to describe a particular industry that is subject to a certain level of barriers for foreign entrants. The model uses relevant parts of the previously described theories that fit for a protected industry. It allows the investigator to describe and evaluate each of the dimensions contained within the industry and their corresponding interactions under given circumstances.

Figure 11 - The Protected Industry Model



** Source – Own elaboration*

3.8.2 An Overview of the Model

The model is divided into three regions: the outer region, the intermediate region, and the inner region. The various regions represent the extent to which an actor is considered as being part of the system. An actor will therefore be considered either an *insider* (belonging to the system, i.e. inner region) or an *outsider* (outside of the system, i.e. the outer or intermediate region).

The different regions are separated by boundaries. These boundaries are composed of two types of barriers: political/legal barriers and cultural barriers. The concept of barriers is very important at this level since it constitutes the main distinction over other similar business environment models. It is important not to mingle our concept of barriers with the one of Porter (five forces model). The distinction will be made at the end of the section.

First, political/legal barriers are deliberately introduced by the governing authorities, i.e. the government, to restrain the access of outsiders into the inner region. Tariff and non-tariff barriers, restrictions on investment, and required percentages of national participation are all good illustrations of this kind of barriers. Of course, the government may also use other alternatives than the ones cited above in order to increase the level of political and legal barriers. This type of barrier is generally used to protect certain aspects of importance for the state.

The cultural barriers are the second type of barrier. Unlike the previous ones, cultural barriers are not deliberately implemented; they are rather "natural" since they are strongly linked to the history and the norms and values of the business environment as a whole. They consist mostly of practices that an outsider should be aware if it ever wants to be able to move to the inner region of the system. Religious beliefs, language, day to day behavior, business practices, the importance of family, political system, legal system, and other cultural traits are aspects that should be considered at this level. Most of these cultural aspects can be found within the societal sectors of Jansson (2000). The government can nevertheless be involved at this level as well. The extent to which the government (or its various authorities) works in communicating the cultural traits can always reflect the attitude of the government for or against a higher level of barriers. It is important for an outsider to investigate those various aspects. Certain factors may be more significant in one given business environment than another.

One should be aware that the two sets of barriers that we just mentioned do not share any affinity with Porter's five forces of competition. Our objective is to

describe the current state of the industry with a special attention given to foreign entrants, i.e. from a foreign entrant point of view. Porter's five forces model is rather firm specific. We would like to keep our focus on the "protected" nature of a particular industry *within* the entire Malaysian business environment. Thus we assume that the actors involved (both outsiders and insiders) are already active in the industry. In other words, we focus more on a particular market outsider-insider relation and not on an industry outsider-insider relation. Additionally, we did not include this aspect simply for the sake of simplicity.

As shown on the model, two levels of boundaries exist. A first one is situated in between the outer region and the intermediate region and a second in between the intermediate and inner region. The rationale behind this is explained in the forthcoming sections.

3.8.3 The Outer Region

The outer region is composed of the various outsiders of the system. They consist mainly of non-national companies attracted to the market. In our figure, we identify two different types of outsiders: non-national car companies (Toyota, Nissan, and Ford for example) and non-national suppliers & partners (components manufacturers such as ThyssenKrupp). Barriers are erected in front of those actors due to their outsider status. Outsiders operating on the market are however still part of their respective dimension and, therefore, partly subject to the forces operating within the inner region. For example, a foreign car company might have to reconsider its strategy in the case where a national company released a new model that is successful or in the case where the government enacted a new regulation on passenger vehicles.

3.8.4 The Intermediate Region

The intermediate region is the middle section situated in between the outer and the inner region. As illustrated in figure 11, the same actors appear in the outer and intermediate regions, however, there is a big difference between them. Those situated in the intermediate region are still considered outsiders but remain closer to the inner part due to two factors: preferential agreements with the concerned system and/or common cultural traits.

The preferential agreements are reached at two different levels: government-government and government-organization. A good example of the first type of preferential agreements is AFTA The ten countries that are currently part of ASEAN are seeking further cooperation by reducing the barriers of trade for

nations included in the group, a scheme known as AFTA. For instance, the level of political/legal barriers to enter Malaysia will be lower for Thailand (both being part of AFTA) than Germany. The second type of preferential agreement deals more with particular arrangements between the government and single companies. For instance, a government authority can provide import duty exemptions to a foreign company in order for the company to access the market with less difficulty. It is clear that such preferential agreements reduce the level of political and legal barriers.

Barriers related to culture can also be reduced. Countries that share cultural traits with a given business environment will find it easier to get closer to the inner region. A common language, religion, way of conducting business, etc. make it easier for the outsider to get used to a given environment. Noteworthy to mention is that an actor that does not share cultural traits from the beginning but acquired and mastered the knowledge required to overcome the cultural barriers can be included in the intermediate region.

As we have seen, different degrees of outsiders exist. However, we would like to state that there are more than two levels of outsiders (outer and intermediate). The outsider status is rather "gradual" meaning that the actors are situated somewhere between a full outer status and intermediate status. The notion of region has been used in order to make the explanations of the model clearer.

Obviously, it is easier for an actor located within the intermediate region to access the inner region than one in the outer region due to lower barriers. Outsiders must deal with those barriers while insiders are not affected by them.

3.8.5 External Factors

Just before moving on to the inner region, we will take a look at the external factor's dimensions located in the outer and intermediate region.

The external factors are forces originating from "outside" of the industry and the business environment. While forces found within a given environment can be termed as belonging to a macro or micro level, external factors are found at a "supra level". More specifically, events contained in another business environment can be so considerable that they might have implications on one or several other business environments.

It is then understandable that the various dimensions contained in the system rather undergo those factors and cannot control them. However, their effect on the industry can hardly be evaluated since these events remain rather general

trends coming from the exterior and are not directly linked to the national dimensions themselves. For instance, we know that a global recession will affect each economy of the world but it is more difficult to evaluate its impact on the national economy than a "localized" recession that is limited to one country only. Noteworthy to add at this point is that the effect of external factors on the national environment can either be positive or negative.

External factors can be of various natures. We affirm that the PESTE (political, economical, social, technological, and environmental) scheme can be used to give an idea of the aspects through which the external factors can influence the business environment.

3.8.6 The Inner Region

The bulk of the actors involved in a given industry are located at this level. The inner region represents both the business environment and the core of the industry. However, **the industry remains embedded within the business environment**, meaning that the business environment will highly influence the way the industry will operate. It is important to highlight this fact since it might not be clear from the illustration of the model in figure 11. In order to picture the statement, one could associate the white part of the inner region to the business environment and the squares and the arrows to the industry itself.

It is apparent that the inner region architecture has been inspired by Porter's diamond (see p.26), hence, explications concerning the elements of the inner region will be limited to the modifications we have made to each of them.

Factor conditions have been organized into three categories: labor market, financial market, and other factors. Labor markets deal with human resources issues, financial markets with the financial implications, and the other factors include aspects such as physical resources, knowledge resources, and infrastructure.

We have re-titled Porter's demand conditions to the heading "customers". The specifications given by Porter remain more or less appropriate in the protected industry model but we want to make sure that the focus is kept on "defining the business environment" only, thus defining the situation of the customers in the industry.

Related and supporting industries, renamed simply related industries, highlight the importance of complementary activities for an industry. Hence, it includes all actors that are not concerned with the fabrication of the "core product" of the

industry. For instance, suppliers, distributors, consulting agencies, etc. It should be noted at this level that the non-national actors belonging to this group are also included in the dimension, but their ability to operate actively in the industry is constrained by different sets of barriers like we have seen before.

The fourth dimension contained in the inner region has also been renamed. The dimension now bares the label "core product manufacturers" instead of firm strategy, structure, and rivalry. The reason for doing so is the same as the case of customers: to focus on the evaluation of the business environment. We wanted to keep our focus away from specific firms strategies and instead on their situation's within the industry. We also wanted to avoid any bias on whether a given actor belongs to related industries or core product manufacturers. This dimension is then including the manufacturers of the "main product". A modified version of the industry life cycle will be used in order to analyze this dimension. Additionally, explanations relative to its application will solely be given in the analysis section.

The government is probably the dimension with the most changing influence on industries from one business environment to another. The ideology adopted by a government will dictate the importance of his influence on an industry. It is at this point that Dicken's ideal type framework, presented earlier (p.38), is helpful in better defining the government, its importance within the diamond, and how it is related to the barriers imposed to outsiders. For instance, a plan-rational (development state) will most likely implement more industrial policies than a market-rational (regulatory state). It follows that the level of political and legal barriers will most likely be higher in a state where a plan-rational ideology prevails and lower in a regulatory state.

Chance is the last dimension contained within the inner region. Its implications within the inner region are the same than those stated in Porter's diamond.

Finally, regarding the business environment as a whole, the institutions located in the societal sectors of Jansson's institutions models can be used.

3.8.7 Clusters and Network

As shown on figure 11, the inner region is where most of the interactions take place. Connections in between the actors are illustrated by arrows. According to our views, two levels of connections can be found.

First, a general level of connections within the industry, the "macro" level of connections, can be observed. This essentially consists of Porter's concept of geographical clusters. The study of clusters illustrates the extent that the various

dimensions of an industry are "connected" to each other (loosely connected versus tightly connected). In order to picture it, we can affirm that it represents the "distance" in between the dimensions. The dimensions could be very close or very far from each other. Most likely, an industry will be more dynamic if the cluster potential is high.

Second, connections can be evaluated and analyzed at a more specific level, what we term as being the "micro" level of connections: relationships between the actors involved in the industry. Following the illustration of our model, we could term the relationships as being the "content" of the various arrows.

A general statement can be made concerning the relations within an industry. Most are oriented towards an instrumental purpose in order to increase efficiency and legitimacy (in Jansson's terms). The content of the relation is typically focused on resource exchange (material exchange and information exchange) and the structure (frequency, duration, density, and stableness) of the relation between two dimensions varies considerably from one relation to another and from one industry to another. For instance, achieving legitimacy might be more important in environments/industries that lack regulations and/or measures that enforce them. As rules and their enforcement are implemented, the importance is slowly shifting towards efficiency.

The general statement cited above is however neglecting some details that are worth mentioning. First, one should not assume that the nature of the relation between two dimensions will be consistent from one actor to another, e.g. government - national company versus government - non-national company. Additionally, the consistency of the government's relations with the various dimensions will depend on its involvement within an industry, i.e. its ideology. A highly regulated industry will ask for more relations with the government than one with a minimal amount of industrial policies. The nature of the relation of the government toward an actor will also vary along with the status of the actor, i.e. insider versus outsider and the industry concerned. In certain situations, the government might be less cooperative with outsiders depending on the industry involved. The same holds for relations with insiders.

Finally, the nature of the relations originating from the chance dimension cannot be compared to the other dimensions. No interaction or exchange of any sort is done at this level. The relation is then best termed as a positive or negative influence on the dimensions, depending on the circumstances.

Both clusters and relationships should be evaluated since it gives an idea of how the various dimensions of an industry interact with each other, how they are linked to each other. A detailed analysis could then be done at this level. However, for the purpose of this research, it is not necessary to go so deep in this aspect. Conversely, we will take a look at the overall situation of the connections.

3.8.8 Inspiration for the Model

As said earlier, the theories of Porter, Jansson, Dicken, and Grant were used to build the protected industry model. Porter's diamond has been used as a tool to assess the industry itself. The logic behind his model has however been slightly changed as we bring the model more to the level of the industry itself, we do not look at it from a national perspective. We have done so since we wanted to evaluate the business environment and not explain why the industry is a desirable home base for competing in the industry. This is also the reason why we modified the name of some of the dimensions of the diamond; we wanted to focus more on describing the industry.

Jansson's institutions model as also been used in constructing the protected industry model. First, it allowed us to complete Porter's dimensions of the industry since most of the institutions located at the organizational level deal with those dimensions. Second, notions on the business environment were lacking in Porter so we added the notions related to Jansson's societal sectors to be able to address a portrait of the business environment as a whole. Just like in Porter's case, the notions have been brought to an industry level, oppositely to the MNC view of Jansson, since it constitutes our subject of interest.

Dicken's ideal type framework and Grant's industry life cycle were used to give depth to dimensions that we considered of importance in the industry, i.e. the government and the core product manufacturers. Grant's model will however be changed to better fit our needs. The changes will be presented exclusively in chapter five.

Finally, we have used Porter's cluster and Jansson's network model to better define the nature of the connections within the industry. Although the network model is at the company level, we have chosen specific aspects that meet our needs. We look at it as a more generalized level.

4 EMPIRICAL FINDINGS

This chapter of empirical findings is meant to lay the groundwork for our case study: the automotive industry in Malaysia. This chapter will include a short environmental analysis of the Malaysia, the current situations of the various actors in the auto industry, as well as an introduction to AFTA and ASEAN.

The empirical findings contained in this chapter are the foundation for answering part of sub-problem one – "What is the current situation in the Malaysian automotive industry." The answer will be completed in the first part of chapter five, where we will present an analysis of the current situation.

4.1 Malaysia Environment Analysis

The research focus of this thesis is on Malaysia and therefore it is necessary to describe the current situation in the country. It should be pointed out that the description done in this section is not extensive since we would like to remain focused on the automotive industry. Only highlights and issues considered crucial for this research shall be covered.

4.1.1 Geographical and Historical Perspective of Malaysia

Malaysia is situated in South-East Asia, bordering Thailand in the north and Indonesia to the south and to the east. The position of the country on the world map is illustrated in the figure below.

Figure 12 - Map of Malaysia

** Source: Microsoft Encarta 2001*

The strategic position of peninsular Malaysia has made it a natural location for commercial activities. The country was hosting traders from India and China as early as the first century AD. About AD 1400, the kingdom of Melaka was founded by Prince Sri Paremeswara. The Prince had been converted to Islam, religion that was brought to the area by traders from India, partly explaining the introduction of this religion to the country. The Europeans were the next to exert their influence on the country. The Portuguese were the first to conquer the country but were soon followed by the Dutch and the British. Following a series of treaties and acts of diplomacy, the British expanded their supremacy over the territory, including the state currently known as Sabah, Sarawak, and Singapore. Under this period, the British encouraged Chinese and Indian immigration in order to supply the labor needed by the tin, rubber, and other industries. Divisions between these groups were deep, coinciding substantially with religious and linguistic differences.[5]

Following World War II, the British imposed a scheme known as the Malayan Union which was meant to give most immigrants citizenship and voting rights, while reducing the power of Malay rulers. The union created strong opposition and led to the creation of the United Malays National Organization (UMNO) in 1946. Later, in the early 1950's, the party formed a coalition with two other parties: the Malayan Chinese Association and the Malayan Indian Congress. This multi ethnic party coalition was known as the Alliance coalition. During the run up to independence, another group known as the Malay Communist Party (MCP) was formed and joined the opposition to the Malayan Union. After several violent manifestations, the party was banned by British troops.

On August 31, 1957, the Federation of Malaya was established with Tunku Abdul Rahman of the UMNO as the first prime minister. A pan-Malaysian federation including Malaya, Sarawak, North Borneo (Sabah), Brunei, and Singapore was proposed. All but Brunei joined the expanded federation renamed Malaysia on September 16, 1963. However, following a series of economic and political quarrels, Singapore withdrew from the federation in 1965.

Following the general elections of 1969, serious riots broke out in Kuala Lumpur leaving 200 dead and more than 5000 Chinese homeless. Most Malay blamed the riots on concessions to non-Malay groups rather than Malay racial attitudes.[6] The

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[5] http://www.encarta.com/ (November 19, 2001)

[6] Let's Go Publications, (2001) *Let's Go: Southeast Asia*, St. Martin's Press, New York, p. 362

New Economic Policy (NEP), established in 1971, which aimed to reduce the poverty level of the population, was a direct response to those riots.

The year 1981 has seen the arrival of Dr Mahathir bin Muhammad as prime minister of Malaysia. He is the one that organized the UMNO Baru (New UMNO), leading to a constitutional monarchy similar to Britain's. Mahathir encouraged rapid growth and industrialization moving away from the country's previous dependence on tin and rubber.

The Asian financial crisis hit Malaysia hard. The crisis resulted in strong public spending cuts and in the dismissal of finance minister and deputy prime minister Anwar Ibrahim. After 20 years in office, Mahathir is still today assuming the functions of prime minister of Malaysia, making him Asia's longest-serving political leader[7].

4.1.2 Social and Demographic Aspects

Malaysia currently has a population of around 22.9 million people[8]. Most of the population lives in peninsular Malaysia (82%) as opposed to the states of Sabah and Sarawak on Borneo. Furthermore, around 55% of the population lives in urban areas[9], i.e. in most of the major cities such as the capital, Kuala Lumpur (1.5 million people), Ipoh, George Town, Johor Bahru, and Klang.

Resulting from historical consequences, Malaysia is currently the home of a multi-ethnic population. Ethnic Malays make up about 47% per cent of the country total population. Chinese represent about 32% of the population, Indian 9%, indigenous ethnic peoples of Borneo 9% and other small communities, the remaining 3%[10]. This multi ethnic situation has benefited the economy of the country but has also given rise to a certain degree of inter community tensions.

Islam is the national religion of Malaysia. About half of the population, mostly the Malays, are Muslims. Most Chinese practice the Chinese religion (a mix of Buddhism, Confucianism, and Daoism). Hindus (mostly Indian decent) and Christians can also be found in Malaysia.

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[7] Clifford, M.L., "Mahathir's Worst Economic Enemy is Himself," *Asia Business, Business Week*, July 16, 2001, p.18

[8] Economic Planning Unit, The Malaysian Economy in Figures 2000, Prime Minister's Department

[9] The Economist Intelligence Unit Limited 2000, Malaysia, May 12th 2000, p.14

[10] http://www.encarta.com/ (November 19, 2001)

Malaysia's official language is Bahasa Malaysia. As we shall see later on, the language has been one of the important aspects of the New Economic Policy (NEP) of 1971. English is also widely spoken.

The NEP is also exerting strong pressure on the education system since most of the government assistance is directed towards the children of Malay, or B*umiputra*. However, Tamil and Mandarin Chinese is still the language of instruction in some primary schools.

4.1.3 Government-Related Issues

The government plays a pro-active economic role which includes responsibilities such as: investing, economic planning, approval of investment projects, approval of public and private procurement decisions, and decision making over privatization contracts. The government holds equity stakes (generally minority shares) in a wide range of domestic companies. These companies are usually large players in key sectors and the government can exert considerable influence over their operations. Another important role that the government takes in Malaysia is the one of author and implementer of policies and programs to bolster the economic status of the Malay and indigenous communities. These policies and programs are all grouped under one heading labeled the New Economic Policy (later changed to National Development Policy (NDP)). Details about the policy are given in the following section. Furthermore, comments will be given concerning the political forces under actions in Malaysia in order to give a proper illustration of the political scene that is currently prevailing.

The New Economic Policy (NEP)

As mentioned earlier, a 20 year New Economic Policy (NEP) was introduced by the newly formed National Front (Barisan Nasional) in 1971 following the terrible events of 1969. Its objective was to reduce the overall poverty level of the population and to promote racial harmony by increasing the percentage of wealth of the Malay referred to collectively as B*umiputra* ("sons of the soil")[11].

Under the NEP, several privileges were given to B*umiputra:* job quotas in public service, easier access to universities, cheaper bank loans, reservation of certain economic activities, guaranteed share of equity in a company, and guaranteed land rights to name a few. The use of a common language, Bahasa Malaysia, was also

[11] The Economist Intelligence Unit Limited 2000, Malaysia, May 12th 2000, p.6

implemented in order to promote national unity. The NEP stated that Malay should be used for all administrative purpose and as a medium of instruction.

Almost uninterrupted rapid economic growth from the institution of the law (1971) until the Asian financial crisis made it possible to raise the status of B*umiputra* without transferring income and wealth from the ethnic Chinese, thereby avoiding serious conflict between the different communities[12].

As mentioned, the policy was firstly instituted for 20 years but it has been revised when the program neared its end in 1990. The National Development Policy (NDP) followed considering the success of the NEP. Some of the privileges related to the NEP were relaxed with the implementation of the NDP.

The scope of the NDP is not limited to the eradication of the poverty but also to emphasize on a sustained economic growth for Malaysia. The expected result is to transform Malaysia into a fully developed country by the year 2020. The scheme is commonly known as "Vision 2020". The government introduced policies promoting foreign investments and completed a series of privatization in order to attain the objective. Additionally, support should be given to improve the situation of certain factors such as: develop indigenous technology, develop a pool of skilled manpower, ensure environmental protection, and develop a positive culture that would favor productivity and commitment to quality.[13]

Political Forces

Malaysia has always been governed by multi ethnic coalitions. The Alliance, composed of the UMNO (the principal Malay party), the Malay Chinese Association (MCA), and the Malayan Indian Congress (MIC), has governed Malaysia from independence to 1969. In 1970, following the riots of 1969, the Alliance was widened to include all main parties in the 13 states legislatures. The broader coalition was named Barisan Nasional (BN), or National Front. The dominant party within both the Alliance and the National Front has been UMNO, which has provided all the prime ministers since independence. Several other parties compose the opposition of BN, these parties newly formed the coalition called Barisan Alternatif (BA), or Alternative Front. The BA includes, among

[12] The Economist Intelligence Unit Limited 2000, Malaysia, May 12th 2000, p. 6
[13] http://202.185.160.3/profit/vision.html (November 21, 2001)

others, the Parti Islam sa-Malaysia (PAS), the Democratic Action Party (DAP), and National Justice Party[14].

Despite the obvious popularity of the National Front and the UMNO, the prime minister found his authority being increasingly called into question even within its own party. Among other things, the dismissal of its previous finance minister Anwar Ibrahim is linked to this decline in popularity. Opposition parties are registering new members at a rate of more than 10,000 per week.[15] The PAS has particularly known some success in the states of Terengganu and Kelantan and made strong inroads into other northern states such as Perak and Kedah. A majority elected PAS would imply the imposition of Muslim law for all Malaysia according to Nik Aziz, PAS leader.[16]

An additional concern at this level is the difficulty in trying to identify a potential aspirant to replace Mahathir the day he shall resign (or pass away). This vagueness leads to great uncertainty relative to the future outcome of the political stability and of Malaysia as a whole. By law, the next parliamentary election does not have to be held until 2004.

4.1.4 Economy

The main economic indicators of Malaysia for 1999 are indicated in figure 13. As a comparison, the estimated GDP per capita (in purchasing power parity) of Malaysia, Thailand, Singapore and US for 2000 are respectively of 10 300, 6 700, 26 500 and 36 200 USD[17]. We are thus able to situate the relative importance of the economic level and quality of life of Malaysia.

Figure 13 - Main Economic Indicators, 1999

GDP (US$ million)	50,036
GDP growth	4.3 %
GDP per capita	3,255
Inflation	3 %
Unemployment rate	3 %

** Source: The Malaysian Economy in Figures 2000*

[14] The Economist Intelligence Unit Limited 2000, Malaysia, May 12th 2000, p. 7
[15] Newsweek Asia, Under Fire, 30 August 1999, p.17
[16] "Under Fire," *Newsweek Asia*, August 30 1999, p.18
[17] http://www.cia.gov/cia/publications/factbook/ (November 20, 2001)

Trade and Investments

Trading was the main driving force of economic development in Malaysia. However, this could be qualified as a tradition for the country since international trade has long been important. Still today, trades are crucial for the Malaysian economy. This is especially illustrated through the level of exports and import that represent respectively more than 100% and 88% of the nation's GDP in 1999[18]. We can then see that the level of import accounts for more than 85% of the export value.

Statistics concerning the main trading partners of Malaysia are compiled in the following figure. Surprisingly, the importance of the ASEAN countries is not as high as one would believe. This is increasingly true when we bring our attention to the evolution of the relative share of exports directed towards those countries.

Table 1 – Main Trading Partners of Malaysia

Direction of Exports (% of total)

	1996	1997	1998	1999
ASEAN	27,2	28,1	28,0	24,3
EU	14,2	13,7	14,5	16,2
Japan	12,7	13,5	12,4	10,5
US	20,7	18,2	18,6	21,7

Source of Imports (% of total)

	1996	1997	1998	1999
ASEAN	17,4	19,7	20,4	22,7
EU	15,4	14,4	14,1	11,9
Japan	27,3	24,5	22,0	19,6
US	16,2	15,5	16,8	19,6

** Source: The Malaysian Economy in Figures 2000*

Investments have generally been welcome in Malaysia, especially those aimed towards export-oriented industries. The number and amount of investment increased steadily until 1993, which recorded a reduction as some investments were directed towards China. The situation recovered in 1994 until the Asian financial crisis. Since then, obstacles to the transfer of funds, such as currency and capital controls, have been imposed and the level of investments therefore diminished.

Currency

In September 1998, Malaysia imposed selective capital controls and pegged the Ringgit at RM 3.8= 1 USD. The measures were intended to eliminate offshore trading in the Ringgit and to insulate the domestic economy and monetary policy

[18] Economic Planning Unit, The Malaysian Economy in Figures 2000, Prime Minister's Department

from currency speculators. The government recognized that the exchange rate should be in line with economic performance but has indicated that it will do so only when the international financial community will impose stricter curbs on currency trading to prevent speculative attacks on currencies[19].

Banking

Malaysia has a fully developed range of commercial banks, merchant (investment) banks, and finance companies. The banks are required to provide loans "at reasonable cost" to priority sectors, all B*umiputra* groups, low cost housing, and small scale enterprises[20].

In July 1999, Bank Negara Malaysia (the central bank) unveiled a controversial plan to reduce the number of locally owned commercial banks, merchant banks, and finance companies from 54 to six within eight months. However, the plan was revised in October 1999. The new plan gave more freedom to the financial institutions and extended the deadline for the merger to the end of 2000. A total of 10 anchors banks have been established with each anchor bank possessing at least a commercial bank, a finance company and a merchant bank in its group[21]. Most of the mergers are currently developing, by April 2001, 50 of 54 institutions had been consolidated by the program[22]. Observers are still waiting for the first signs of economies of scale created by the synergies among the banks.

Transport Conditions

Malaysia's land transport network is relatively unevenly developed. Peninsular Malaysia has an extensive road and rail network. The highway network in this region is being constantly upgraded and developed to provide access to newly developed areas. However, Sabah's and Sarawak's (on Borneo) mountainous interior as impeded the development of such a system.

Two major ports, Klang and Penang, remain available as a trading link. However, Singapore still remains one of the major accesses to Malaysia via sea (40% of Malaysia's imports)[23].

The country can also count on KLIA (Kuala Lumpur International Airport), which recently opened in June 1998. The facilities are not used as much as

[19] http://www.state.gov/ (November 22, 2001)
[20] The Economist Intelligence Unit Limited 2000, Malaysia, May 12 2000, p.30
[21] http://www.atimes.com/se-asia/BB16Ae01.html (November 22, 2001)
[22] "Banking system consolidating around 10 institutions," *Yahoo Business*, July 20, 2001
[23] The Economist Intelligence Unit Limited 2000, Malaysia, May 12 2000, p.17

planned since four airlines, including British Airways, have cancelled service to Kuala Lumpur because of poor sales[24]. Another international airport was planned of the coast of Kedah but the project has been cancelled due to the downturn related to the financial crisis.

4.1.5 International Relations

A number of international bodies and initiatives such as the WTO and APEC have received the support of Malaysia. One of the greatest contributions is to be one of the founding members of ASEAN. More details on ASEAN can be found in section 4.9).

However, some aspects remain controversial under Mahathir. The prime minister has been critical toward issues such as international initiatives related to trade union rights and environmental protection, the western speculators (during the Asian crisis), and the actual independence of the International Monetary Fund from the United State government.

4.2 Core Product Manufacturers

The core product for the automotive industry in Malaysia is of course motor vehicles. Other products related to the core product will be outlined under the related industries section. Only actual manufacturers of motor vehicles fit in this section. Importers and distributors are found in the related industries section. This section will give the reader an idea of the size of the market, the production figures, and an overview of the general operations of major automotive companies in Malaysia, both national and non-national.

4.2.1 Sales & Market Shares

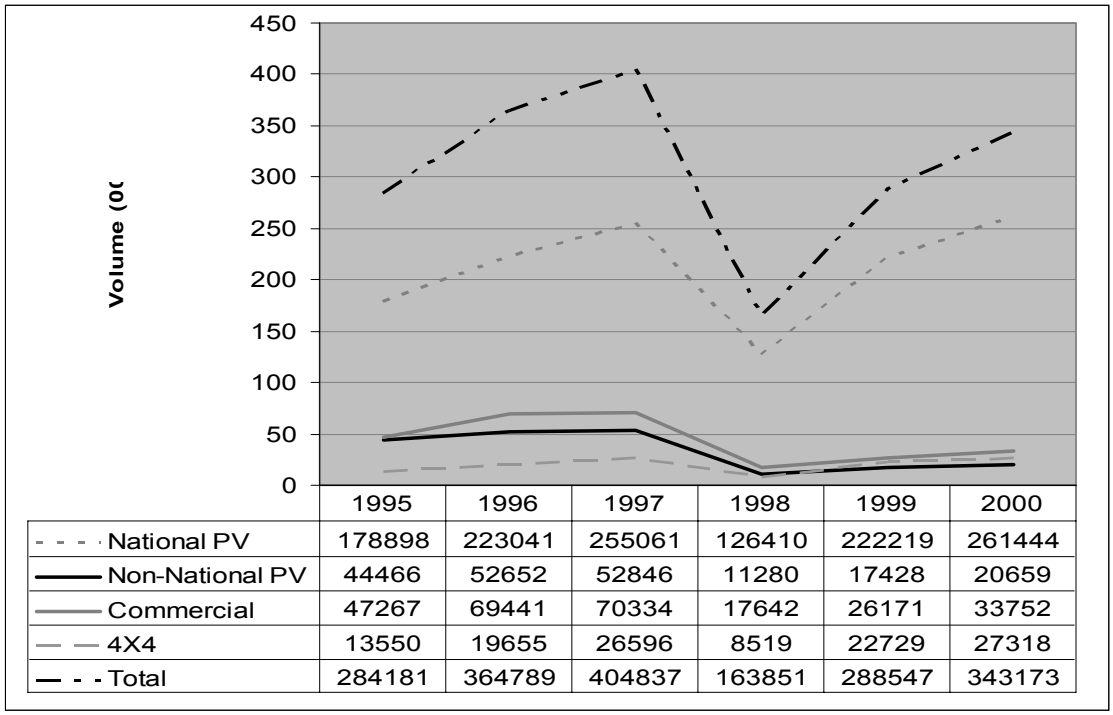
Sales of motor vehicles in Malaysia are exposed in figure 14. Sales are broken down into passenger cars, commercial vehicles, and four-wheel drives (4X4); total figures are also exposed.

It can be seen that Malaysia has quite a good potential in terms of a motor vehicle market. Total sales attained more than 400,000 vehicles in 1997 and the country is recovering well from the currency turmoil as the sales are already reaching more than 340,000 units for 2000 (after a low of 160,000 units for 1998). The average

[24] Clifford, M., "Mahathir's Worst Economic Enemy is Himself," *Asia Business, Business Week*, July 16, 2001, p.18

growth for the last 5 years reaches 12 percent (including the financial crisis negative growth). National cars and 4X4s are the categories that registered the most important average growth in the last 5 years with 14 and 39 percent respective increases. Non-national car companies and commercial vehicles have been less fortunate with an average growth close to nil for the last five years.[25] Furthermore, it can be added that the country total sales volume (340,000) is way over the one of neighboring countries such as Thailand (240,000), Indonesia (303,000) and Philippines (82,800)[26]. Malaysia is therefore the biggest motor vehicle market of ASEAN.

Figure 13 – Motor Vehicle Sales - Malaysia



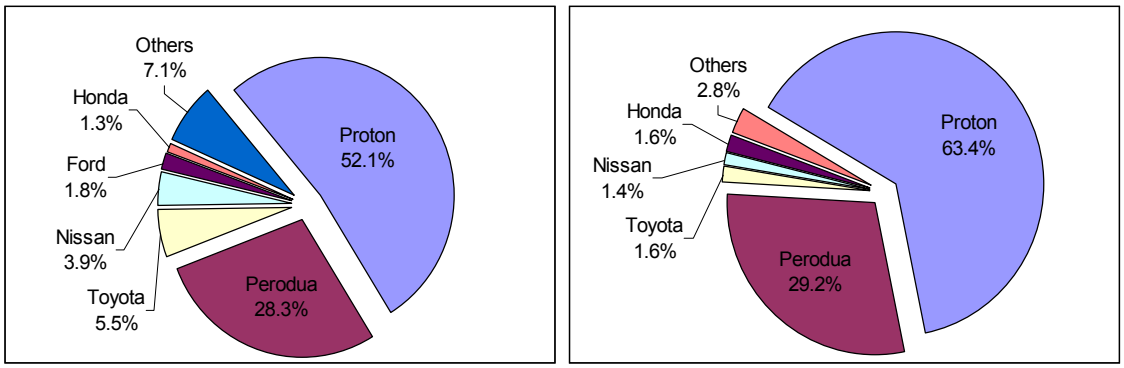
	1995	1996	1997	1998	1999	2000
National PV	178898	223041	255061	126410	222219	261444
Non-National PV	44466	52652	52846	11280	17428	20659
Commercial	47267	69441	70334	17642	26171	33752
4X4	13550	19655	26596	8519	22729	27318
Total	284181	364789	404837	163851	288547	343173

** Source: Malaysian Automotive Association (MAA)*

From the above figure we can see that national passenger vehicles are the ones chosen by Malaysians. The two national car makers have close to a 90 percent market share when it comes to passenger vehicle sales. Market shares are shown in figure 15.

[25] Statistics taken from MAA (Malaysian Automotive Association), 2000
[26] http://www.autopolis.com/ (July 10, 2001)

Figure 15 – Market Shares - Malaysia



Note: The figure on the left represents total market share (both commercial and passenger vehicle) and the figure on the right represents passenger vehicle market share.

** Source – Own using MAA Statistics*

As shown on figure 16, Proton and Perodua registered important sales figures for the last years and have been able to overcome the financial crisis to a certain extent. Among Non-National car sales, the top 5 is composed of Toyota, Nissan, Ford, Honda, and Mitsubishi with respective market share of 5%, 4,6%, 1,9%, 1,4% and 1,3% for year 2000. Both Toyota and Nissan seem to maintain their comfortable position while Honda seems to slowly lose out. Ford is probably the most rising star among all manufacturer/assemblers. This can be especially attributed to Ford's strong success in the commercial vehicle segment.

Figure 16 – Sales of Non-National Vehicles in Malaysia

	1995	1996	1997	1998	1999	2000
Toyota	22104	28481	29278	8262	13785	19043
Nissan	16916	19743	22835	4923	9347	13221
Ford	5877	5831	6645	1609	3199	6171
Honda	11048	18355	19653	4100	4606	4550
Mitsubishi	6214	7643	7353	1376	2893	3218
HICOM MTB	0	0	262	1323	2540	3208
Daihatsu	8793	10537	8229	1114	2308	2775
M Benz	4026	4470	4423	1159	1163	2247
BMW	1301	2350	2635	672	1219	2085
Volvo	1936	2374	2237	422	642	1552
Isuzu	9111	14552	13625	1809	2057	1366
Suzuki	2185	3124	3128	486	1094	784
Mazda	1023	1003	843	100	872	718
Citroen	2125	1712	1336	327	703	583
Land Rover	762	945	1039	201	127	550
Hino	1939	2557	2188	379	381	537
Peugeot	2150	2506	1733	350	325	465
Others	7973	8325	11858	2813	2975	4155

(Included in others: Suzuki commercial; Daihatsu cars; Mitsubishi cars; Mercedes commercial; Nissan 4X4; Honda 4X4; and other models.)

** Developed from MAA Statistics*

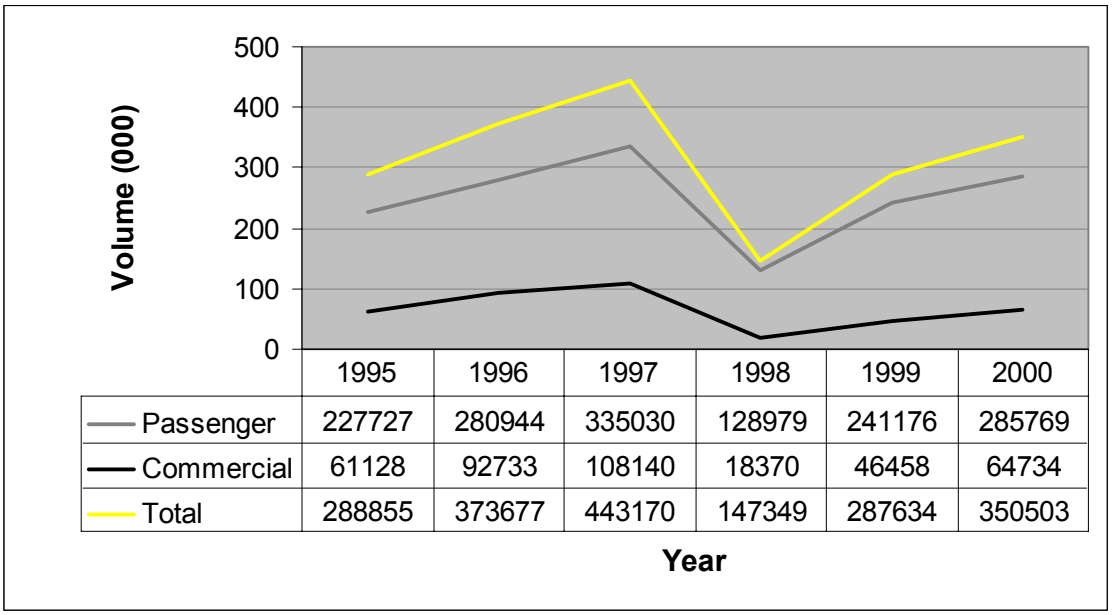
4.2.2 Motor Vehicle Production

There are currently 16 motor vehicle (passenger car and commercial vehicle) assembly and manufacturing plants in Malaysia. The list of these various plants is shown in the Appendix. The total capacity of these plants could be approximately 600,000 units of passenger and commercial vehicles a year. Right now, the facilities use roughly 58% of their capacity since more or less 350,000 units are produced in Malaysia.

The evolution of the production of motor vehicle in Malaysia is a history of up and down. Once going through a period of recession in the mid 1980's, the industry has been able to recover with significant growth. This was then cooled off in the 1992 due to fiscal and monetary measures introduced by the

government. The production picked up in 1993 until 1997 when the financial crisis hit the ASEAN countries like a brushfire. However, the production trend seems back on track as illustrated on the figure below.

Figure 17 – Motor Vehicle Production - Malaysia



	1995	1996	1997	1998	1999	2000
Passenger	227727	280944	335030	128979	241176	285769
Commercial	61128	92733	108140	18370	46458	64734
Total	288855	373677	443170	147349	287634	350503

* *Created from MAA Statistics*

Interesting to add is the close relation in between the sales and production figures in Malaysia. As a matter of fact, Malaysia has seen 350,000 cars produced on its territory in year 2000 whereas 343,000 of them were sold on the local market. A short correlation analysis of both figures reveals a perfect correlation (r=1).

4.2.3 National Car Companies

As most people know, the protected Malaysian auto industry is dominated by national car manufacturers. A brief outlook of Malaysia's national car companies, Proton, Perodua, and Inokom, will be given in this section.

Perusahaan Otomobil Nasional Berhad (Proton)

Malaysia's first national car manufacturer, Perusahaan Otomobil Nasional Berhad or Proton, became a reality on May 7, 1983. A joint venture between Mitsubishi Motor Corporation (MMC), Mitsubishi Corporation, and the Heavy Industries Corporation of Malaysia (HICOM), Proton rolled out its first cars in 1985. The

Proton project was launched with the intention of developing an integrated motor vehicles industry, with emphasis on the manufacture of component parts.

Proton was first listed on the Kuala Lumpur Stock Exchange (KLSE) in 1992. Since then the shareholders have changed. On December 4th 2000, HICOM's 25.8 percent stake in Proton was purchased by Petronas for RM981,015 million. In addition to this, Petronas purchased 1.37 percent equity in Proton which was held by Perecom Industries Sdn Bhd, a wholly owned subsidiary of HICOM giving Petronas a total equity of 27.17 percent.[27] Today, its shareholders are as follows:

- Petronas 27.17 %
- Khazanah Nasional Berhad 17.96 %
- Employees Provident Fund Board 11.02 %
- Mitsubishi Corporation 8.03 %
- Mitsubishi Motors Corporation 8.03 %
- Other Local and Foreign Investors 27.79 %

Many Proton cars have been modeled after Mitsubishi cars and Proton has strong ties with Mitsubishi. To a large extent, the most important components of a car, such as drive trains and engines, are still brought in from Mitsubishi in Japan. However, Proton is becoming more and more independent from its Japanese partners.

During 2001, Proton announced that it will jointly develop a new model with Lotus Engineering Ltd., which will be built on the new Lotus Monaco chassis which is developed from technology used in the Lotus Elise. Based in Kuala Lumpur's Technology Park, Lotus Engineering Malaysia Sdn Bhd (LOEM) could become a better and much closer platform for Lotus' parent Proton to work with. LOEM has already helped Proton to develop at least three new models poised to be unveiled by 2004, particularly in terms of riding and handling, the specialty of the Lotus group. Additionally, Renault has a technical agreement with Proton to supply them with a 1.8 liter engine for the Waja.

Models produced and sold by Proton include the Mitsubishi Lancer-based Proton Saga (1985), Iswara (1992), Wira Series 1 (1993), Satria (1994), Perdana 2L Series 1 (1995), Wira Series 2 (1995), Tiara (1996), Putra (1997), Satria Gti (1998), Perdana 2L V6, Waja (2000), and Juara (2001).

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[27] "Petronas Becomes Largest Shareholder in Proton, Finally," *Autotrade E-Magazine,* Dec. 5, 2000

Currently, Proton exports to about 50 countries. Riding on the "Muslim State" image, Proton is seeking more presence in the Middle East, Iran, India and China. However, industry sources say sales have not been too encouraging and the exports business continues to be in the red (FY01 pre-tax loss of RM253.3m). To counter this, Proton plans to explore opportunities for overseas assembly to reduce transportation, freight charges and perhaps, duties and taxes. The UK and Australia are Proton's largest export markets.

Proton uses two companies for the distribution of its passenger cars, Proton Edar and EDARAN Otomobil Nasional Bhd (EON). EON distributes the majority of Proton cars (70.3% in 2000), however the previous 10-year Distributorship Agreement (DA) between Proton and EON expired January 1, 2000 and EON is at risk of losing its Proton car distribution franchise. A new DA has still not been signed as the parties had previously failed to reach a consensus.

EON is Malaysia's leading distributor of motor vehicles. EON has successfully diversified into various sectors including motor, financial services, general trading, properties, manufacturing, and services. Currently, EON is the sole distributor of the Iswara, Wira Sedan, Wira Aeroback, Perdana and Perdana V6 and has parallel distribution rights of the Waja with Proton Edar.

Earlier this year, Proton bought a distribution arm of DRB-HICOM, USPD. After purchase, Proton renamed USPD Proton Edar. The newly acquired Proton Edar has been involved in the distribution of Proton cars since 1995 and is the sole distributor of the Tiara, Satria, Satria GTi, Wira Aeroback, Juara, and the Putra and shares distribution rights of the Waja with EON[28]. Proton Edar has also contributed RM100 million towards the development of Proton's Satria and Tiara models over the past 5 years[29].

Proton has signed a 10-year DA with wholly-owned subsidiary Proton Edar Sdn Bhd for the distribution of all Proton cars which includes a clause that allows Proton Edar the option to contribute to development cost. If this option is exercised, Proton Edar will earn the exclusive distribution rights of the models it helps pay for.

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[28] Moreira, D., "EON obtains rights to distribute Proton MPV," *Business Times (Malaysia)*, July 13, 2001

[29] Barrock, L., "EON forced into a Corner," *The Edge*, May 28, 2001 p.14-15

The Asian financial crisis hit Proton quite hard as sales dropped by over 50% in 1998, however rebuilding was swift and sales are back up close to 1997 peak levels of about 200,000 PV units. Sales and market share figures are shown below:

Table 2 - Proton Sales and Market Share Figures

	1995	1996	1997	1998	1999	2000
Sales Passenger Vehicles (000)	140.6	176.1	198.8	87.5	111.6	179.0
Market Share Passenger Vehicles	62.2%	63.9%	63.9%	63.5%	65.0%	63.4%
Overall Market Share	48.9%	48.3%	48.6%	53.4%	54.0%	52.1%

** Source – Info Malaysia 2000 & MAA Statistics*

Proton vehicles are produced by two manufacturers, Perusahaan Otomobil Nasional Berhad (PONB) and Automotive Manufacturers Malaysia (AMM). PONB has two plants and produces the majority of the Proton cars. The two PONB plants have a combined capacity of about 200,000 with 181,000 cars produced in 2000.

In addition to PONB's main plant, Proton has a new facility known as the 'Medium Volume Factory' (MVF) which occupies 53,200 sq. meters of land on the western side of the complex. Proton spent RM400 million to build this additional production facility and it is used for modular assembly.[30] For a start, the MVF has a capacity of 50,000 units a year but this could be increased to 80,000 units very quickly with an extra RM50 million investment.

AMM is 93% owned by the DRB-HICOM Group and produces the lower-end Proton models - Satria and Tiara. AMM operates flexible, multi-model assembly lines and in addition to Proton cars, AMM does contract assembly of Optare buses, Iveco maxi-buses, Isuzu 4X4s and commercial vehicles for ACM, Mitsubishi 4X4 and commercial vehicles for United Straits Fuso Sdn. Bhd. (USF). In 2000, AMM produced about 7,600 Proton cars[31].

Proton is now in the process of developing its own small engine for the high-volume market, the SENG. The SENG will first appear in the new Proton GXM in 2002-2003. Proton's main aspiration for developing the SENG is to improve competitiveness by eliminating the need for imported engines from Japan. The

[30] "Where Wajas Are Made," *Autoworld EMZine,* August 23, 2001, p. 1
[31] MAA Statistics

SENG will save Malaysia a substantial amount of foreign exchange and will allow Proton to pursue its own direction in the future and be more independent. Companies involved in the development of the SENG include Lotus Engineering, Petronas, Advanced Engine Research (a Proton-Petronas joint venture for engine development), SIRIM, as well as many component manufacturers. As Tan Sri Tengku Mahaleel, CEO of Proton puts it, "Having its own engine is crucial to Proton's future. It's the 'heart' of a car, and without it, you can't have a car. So we want to have our own Malaysian engine which we can manufacture ourselves and stop buying from other manufacturers." [32]

As a means of moving towards global competitiveness, Proton is using the following cost-cutting activities:

- Identification of world component manufacturers and technological suppliers for parts resourcing and supply.
- Multi-sourcing to enhance competitiveness.
- Vendor development.

Proton's eventual target is to develop Malaysia into a production base for automotive components for the region, which will spread out costs and make Proton more globally competitive[33].

Thus far, there are 182 vendors[34] currently manufacturing and supplying components and approximately 4,417 component parts[35] being supplied for Proton. Most of the vendors are located in Peninsular Malaysia and spread out in about a 50 km Radius from the Proton plant in Shah Alam.

In an attempt to improve and upgrade the technical capabilities of component parts manufacturers, Proton has developed a system called *Tier One System Suppliers*. This system involves set criteria that Proton suppliers must meet in order to be technically capable of supplying the required component parts to Proton. These criteria include: the observance of quality consistency, best manufacturing practices, adherence to timely delivery schedules, and reliability in supplies. Currently, 18 tier one vendors meet these requirements.

A final point to be taken into consideration is Proton's brand image. One part of the brand image is the Proton logo. A few years back, Proton changed their logo

[32] "Another big step for Proton," *Autoworld EMZine*, October 6, 2000, pp. 1
[33] Malaysia Yearbook 2000, pp. 449
[34] Malaysia Yearbook 2000, p. 449
[35] MACPMA Directory 2001, p. A9

from the moon that is on the Malaysian flag to a more international one. This new logo provides a more dynamic image of the company and shows its desire to become more international.

In general, Proton's brand image is quite poor. An automotive specialist that wished to remain anonymous is quoted as saying, "Malaysians grew up with Proton. If you can afford to buy anything but a Proton in Malaysia it shows that you have achieved something in your life. People have been forced to drive Proton all of these years; now they want other cars."

This comment sums up the feeling about Proton cars in Malaysia. Without a strong brand identity, manufacturers will have to compete on price assuming that two cars are of the same specs.

Perusahaan Otomobile Kedua Sdn Bhd (Perodua)

Perusahaan Otomobile Kedua Sdn Bhd (Perodua) was set up as Malaysia's second national car project in 1993. The manufacturing plant's equipment was bought in early 1993 and was installed by November 1993.

Foreign capital in Perodua was infused by Daihatsu and Mitsui of Japan; local equity came from Permodalan Nasional Berhad (PNB), Med-Bumikar Mara and UMW Holdings. With an initial installed assembly capacity of 40,000 cars, Perodua was mandated to produce affordable cars that cater to the needs of the lower middle-income group. As was the case with Proton, the second national car project was also meant to advance indigenous, in particular, *Bumiputera* participation in the local automotive sector.

The official opening of the Perodua plant was held on August 1, 1994 and the Kancil was launched on August 29, 1994. Other models include the Kancil EZ (1995), Kancil ERA (1995), Kancil 850cc (1996), Perodua Rusa 1.6 liter (1996), Perodua Kembara (1998), and Perodua's latest model, the Kelisa was officially released on August 24, 2001.

Perodua produces vehicles in all three segments (passenger, commercial, and 4x4) although much of Perodua's is based on the Daihatsu-based Kancil. The majority of Perodua distribution is handled by wholly-owned subsidiary, Perodua Sales Sdn Bhd. However Daihatsu (Malaysia) is responsible for a portion of sales as well. Perodua sales and market shares are broken down in table 3.

MBM Resources' main subsidiary, Daihatsu (Malaysia) Sdn Bhd, is the sole distributor of Daihatsu vehicles and the largest independent dealer of Perodua

vehicles in Malaysia[36]. The number of Daihatsu and Perodua vehicles sold by Daihatsu (Malaysia) during 2000 were 2,973 units (1999: 2,621 units) and 10,602 units (1999: 9,217 units) respectively, or a year-on-year growth rate of 13.4% and 15.0% respectively[37].

Table 3 – Perodua Sales & Market Shares

	1995	1996	1997	1998	1999	2000
Perodua Passenger Vehicles Sales	39,906	46,941	58,255	38,921	66,499	82,484
Perodua Commercial Vehicles Sales	0	7,240	10,476	2,452	1,589	2,392
Perodua 4x4 Vehicles Sales	0	0	0	3,564	14,503	12,109
Total Perodua Sales	39,906	54,181	68,731	44,937	82,591	96,985
Market Share Passenger Vehicles	17.9%	17.0%	18.9%	28.3%	27.7%	29.2%
Market Share Commercial Vehicles	0.0%	10.4%	14.9%	13.9%	6.1%	7.1%
Market Share 4x4 Vehicles	0.0%	0.0%	0.0%	41.8%	63.8%	44.3%
Total Market Share	14.0%	14.9%	17.0%	27.4%	28.6%	28.3%

** Composed with MAA Statistics*

The future of Perodua's shareholding is uncertain. Sources say that Perodua is in the process of giving Daihatsu, a subsidiary of Toyota Motor Co, a majority stake in Perodua. Perodua's current shareholders are as follows:

- UMW Corporation Sdn Bhd 38%
- MBM Resources 23.6%
- PNB Equity Resource Corporation Sdn Bhd 10%
- Daihatsu (Malaysia) Sdn Bhd 5%
- Daihatsu Motor Co Ltd (Japan) 20%
- Mitsui & Co Ltd 7%

Perodua has a land area of about 80 hectares, and a factory area of 64,000 square meters, and during the year of 2000, Perodua focused on its plant capacity improvement program and increased total annual production capacity to 150,000 (two-shift cycle) units from 120,000 units previously.[38] Perodua is currently facing capacity problems and needs to expand its paint shop which acts as a bottleneck

[36] K&N Kenanga Research Securities Analysis Report, MBM Resources, p. 1, March 21, 2001
[37] MBM Resources Annual Report 2000.
[38] UMW Holdings Berhad Annual Report 2000, p. 23

by allowing only 12,000 units per month. Perodua production figures in 2000 for passenger vehicles and total production are 86,742 and 101,618[39] respectively.

Since its inception in 1993, Perodua has been developing a comprehensive vendor network and has been increasing the level of local content. Currently, Perodua has 137 vendors that supply over 1,000 components[40].

Perodua's firstly exported on March 4 200 to Negara Brunei Darussalam (Brunei) and since then Perodua has exported to more than 15 countries. Some Perodua export destinations include: Cyprus, Fiji, Malta, Mauritius, Singapore and the UK. Export markets are developed by Perodua through establishing initial market presence in smaller countries and expanding from there.

Industri Otomotif Komersial Malaysia (Inokom)

Industri Otomotif Komersial Malaysia (Inokom) is Malaysia's first national truck company. The company was established in 1992 and is situated in Kulim, Kedah. Shareholders of Inokom include: Renault (15%), Berjaya (35%), Hyundai Motor (15%), and Hyunmal Motors (5%).

The company is strictly operating is the commercial vehicle segment. However, the popularity of the truck company remains minimal and the company should not be designated as a major player on the Malaysian market. With its 5 vehicles sold so far, Inokom is definitely not in the same league as Nissan (3745 commercial vehicles) or Daihatsu (1687 commercial vehicles).

4.2.4 Non-National Car Companies

Non-national automotive manufacturers are relatively minor players in Malaysia, holding only about 10% of the total market share. This section gives a brief description of the foreign company's operations.

UMW Toyota Motor Sdn Bhd

UMW Toyota Motor Sdn Bhd is a joint venture with Toyota Motor Corporation, Japan and was incorporated on July 23, 1980 and UMW Allied Power Sdn Bhd, a wholly owned subsidiary of UMW Corporation Sdn Bhd. It changed its name to Sejati Motor Sdn Bhd on September 17, 1981 and subsequently to its present name on September 24, 1987.

[39] MAA Statistics
[40] Yearbook Malaysia 2000, p. 450

On January 1, 1982, the company became the franchise holder for Toyota in Malaysia. This forms the core of its business undertaking, which is assembly, distribution, and retailing of Toyota passenger and commercial motor vehicles. Toyota vehicles assembled in Malaysia are solely for the Malaysian market as UMW Toyota Motors has no export markets.

Assembly Services Sdn Bhd (ASSB) is the assembler for UMW Toyota and Daihatsu and has an annual production capacity of about 50,000 units. In 2000, ASSB had a total production of about 19,600 units with over 15,000 of those being commercial vehicles. UMW Toyota partakes in CBU imports and assembly; however CBUs are a small percentage - fewer than five percent. Local content averages about 45 percent, depending on model, some as high as 55 percent. UMW Toyota uses about 75 local suppliers and parts produced in Malaysia include tires, plastic moldings, air conditioning, batteries, alarms, etc. The company is multisourcing many components from Toyota associates in South Africa, Australia, Thailand, Indonesia, Taiwan.

There is much less of a variety of Toyota models sold in Malaysia although most of the leading models are present. Models sold in Malaysia include: Hiance Van, Dyna Pick-up, Hilux, Land Cruiser 4x4, Prado 4x4, and Unser MPV.

As we can see from table 4, Toyota is strongest in the commercial vehicle and 4x4 sectors but is also growing in the passenger car segment since the release of the Corolla.

Table 4 - Toyota Sales & Market Share Figures

	1995	1996	1997	1998	1999	2000
Toyota PV Sales	8,402	10,408	9,212	1,930	4,556	4,424
Toyota CV Sales	9,959	11,616	10,281	4,806	7,057	10,089
Toyota 4x4 Vehicles Sales	3,743	6,457	9,785	1,526	2,172	4,530
Total Toyota Sales	22,104	28,481	29,278	8,262	13,785	19,043
Market Share PV (non-national)	18.9%	19.8%	17.4%	17.1%	26.1%	21.4%
Market Share PV (total)	3.8%	3.8%	3.0%	1.4%	1.9%	1.6%
Market Share CV	21.1%	16.7%	14.6%	27.2%	27.0%	29.9%
Market Share 4x4 Vehicles	27.6%	32.9%	36.8%	17.9%	9.6%	16.6%
Total Market Share	7.8%	7.8%	7.2%	5.0%	4.8%	5.5%

** Created from MAA Statistics*

With a total of 6,046 employees in the Group, UMW Toyota Motor shareholders consist of UMW Holdings of Malaysia (51.0%), Toyota Motor Corp of Japan (39.0%), and Toyota Tsusho Corp - a subsidiary of TMC (10.0%).

Toyota dealers operate in a branch system where workers are employees of Toyota. There are also however independent dealers, about 10. Toyota vehicles are distributed by UMW Toyota Motor Sdn Bhd and branches are spread throughout Malaysia. UMW Toyota has 29 (3S = Sales, Service, and Parts) branches, five (1S = Sales only) branches and 1 (2S = Service and Parts) branch in Malaysia.

Tan Chong & Sons Motor Co Sdn Bhd (TCM)

Tan Chong & Sons Motor Co. is the franchise holder for Nissan vehicles in Malaysia & Singapore since 1958. There is a total of about 1500 employees in Tan Chong Motors. The assembly plant has about 850, other positions 500-600. Employee turnover is about 30-40 a month (people).

Tan Chong Motors is a predominately Chinese family business. Shareholders for TCM include: Tan Chong Consolidated Sdn Bhd[41] TCC (45.28%), Nissan Motor Co Ltd (5.56%), and Employees Provident Fund Board (3.73%). The structure of the Tan family and the corresponding control of TCC is shown in figure 18.

Early in 2001, a family dispute within Tan Chong Motors that had begun in 1999 escalated into a court battle. Since then there have been constant court battles with accusations such as defamation and espionage between the two sides of the family. Adding to the dispute are differing salary concerns and shareholding power struggles. Analysts fear that if Tan Chong can not resolve its problems and TCC splits, members of the Tan clan could create small empires from the listed companies.

[41] *Dato' Tan Kim Hor, Dato' Tan Heng Chew, Dr. Tan Ban Leong, Messrs Tan Beng Keong, Tan Boon Pun, Tan Eng Soon, Tan Hoe Pin, Dr. Tan Kang Leong, and Mr. Tan Kheng Leong are deemed interested in the shares held by Tan Chong Consolidated Sdn Bhd and are substantial shareholders of Tan Chong Motor Holdings Berhad.*

Figure 18 – Tan Family Structure and Control of TCC

Datuk Tan Kim Hor		10.3%
45% control of TCC		
Lee Lang	(2nd wife)	
Pan Sew Ha	(3rd wife)	
Tan Kheng Leong	(eldest son)	11.2%
Dr. Tan Kang Leong	(2nd son)	6.3%
Tan Boon Pun	(3rd son)	2.7%
Tan Hoe Pin	(4th son)	2.4%
Ten Chee Keong	(5th son)	2.4%
Tan Ban Keong	(6th son)	2.4%
Dr. Tan Ban Leong	(7th son)	2.4%

Tan Sri Tan Yuet Foh	(deceased)	
55% control of TCC		
Chang Nga	(3rd wife)	
Datuk Tan Heng Chew	(eldest son)	16.7%
Tan Eng Soon	(2nd son)	16.7%
Tan Su Leong	(3rd son)	5.6%
Tan Eng Hwa	(4th son)	6.2%
Tan Eng Keat	(5th son)	3.3%
Tan Boon Siong	(6th son)	2.9%
Tan Boon Hooi	(7th son)	2.9%

** Source - Ngui, C., "Business as Usual," Malaysian Business Magazine, July 1, 2001, p. 16 & Ngui, C., "Bumpy Road Ahead?" Malaysian Business Magazine, April 16, 2001, p. 29*

October 9, 2001 Datuk Tan Kim Hor and several others brought a petition against the family of his late brother Tan Sri Tan Yuet Foh and Heng Chew (Yuet Foh's eldest son) and eight others to the High Court to wind up Tan Chong Consolidated Sdn Bhd. However the court struck out the petition on the grounds that "the facts as presented in the petition and the affidavits in support do not dispose a reasonable course of action under Section 218(1)(i) of the Companies Act.[42]" Datuk Tan Kim Hor and several others filed an appeal the following day.

The real fear among Tan Chong family members is not the disputes within the family; it is whether the group can hold on to the Nissan franchise. Even though a relationship is present, Nissan would probably be quick to move in and take over operations. Nissan Motor Co recently announced that it was increasing from 25 percent to 74.9 percent its stake in its Thai partners, Siam Nissan Automobile Co Ltd. This would make the Thai distributors its subsidiaries[43]. Will Nissan act the same way for Malaysia and Tan Chong?

[42] The Business Times Malaysia "Court strikes out petition to wind up Tan Chong Consolidated" October 10, 2001

[43] Ngui, C., April 16, 2001, p. 27

The Nissan C22 Vanette Pick-up is Nissan's highest selling model with a sales volume of about 6000 units in 2000. Other models include the Cefiro V6 Brougham, Serena van, AD Resort Wingroad, Cabstar truck, Nissan Terrano 4WD, and Nissan Sentra. Also included are the Nissan Diesel U-41 truck 5.0 & 7.5 ton GVW and the Nissan Diesel CKB45 ABTN2.

Sales of Nissan vehicles totaled 9,097 and 13,221 units for 1999 and 2000 respectively. Historic market shares are found in the table below:

Table 5 - Nissan Market Share Figures

	1995	1996	1997	1998	1999	2000
Market Share Non-National PV	17.8%	12.9%	15.5%	12.5%	17.0%	19.0%
Market Share Total Passenger Vehicles	3.5%	2.5%	2.7%	1.0%	1.2%	1.4%
Market Share Commercial Vehicles	19.1%	18.7%	20.8%	19.9%	24.4%	27.5%
Total Nissan Market Share	6.0%	5.4%	5.6%	3.0%	3.2%	3.9%

** Created with MAA Statistics*

Edaran Tan Chong Motor markets and distributes the Nissan lineup through 28 branches nationwide, supported by 31 authorized sales dealers. Tan Chong Express Auto Servis operates a comprehensive network of 20 service centers and 44 authorized workshops across Malaysia. Furthermore, the Spare Parts Centre operates 13 branches nationwide with 90 authorized stock suppliers.

The sole assembler of Nissan vehicles is Tan Chong Motor Assemblies Sdn Bhd (TCMA). TCMA is 70% owned by Tan Chong Motor Holdings of Malaysia and the remaining 30% is held by other Malaysian investors. Nissan cars sold in Singapore are fully imported from Japan, whilst those in Malaysia are locally assembled. All Nissan cars that are sold in Malaysia are assembled in Malaysia and no CBUs are brought in. Tan Chong has about 45% local content for passenger cars and about 55% for commercial vehicles. The parts produced in Malaysia and mainly the Mandatory Deleted Items such as fuel tanks and small metal parts.

The annual production capacity of Tan Chong Motor Assemblies is approximately 24,000 units per annum. In 2000, TCMA assembled a total of 4,078 passenger cars, which includes three Nissan models and a small amount of Audi and Peugeot

cars (319 and 68 respectively). TCMA also assembles Nissan 4x4s, vans, commercial vehicles, and busses, totaling 10,731 in 2000[44].

Ford Malaysia Berhad

Ford Malaysia, previously known as Associated Motors Industry (AMI), is a joint venture between Tractors Malaysia (51%) and Ford Motor Corp (49%). While Tractors has ownership control of Ford Malaysia, Ford Motor can be cited as the effective owner. However, Ford would not be looking into buying into the majority of the shares.

Sales and production figures were 6171 and 5987 respectively in 2000[45] and this gives an approximate total market share of 1.8% for Ford. Interesting to note is that a low market share such as 1.8% is still sufficient to be the fifth highest seller in the country (3rd for non-national companies).

Ford motor vehicles are produced at AMI plants in Shah Alam. The models assembled in Malaysia are: the Ranger, the Escape, the Econovan, the Transit, the Trader and the Lynx. AMI has a total of 3 plants, 2 in Shah Alam for passenger cars and a plant in Klang for the assembly of heavy vehicles for Scania (the production is still outsourced to Tractors Malaysia) and other heavy weight vehicles. According to representatives at Ford, the production capacity of those three plants together should come up to 22,000 cars a year. The production figure for 2000 was 9,545 vehicles, the bulk being Ford and BMW cars.

Interesting to add is that AMI is producing Mazda cars since both vehicles are using the same platform and the same technology. As an illustration, the Mazda Fighter and the Ford Ranger are very similar, the sole difference lies in the body; only the "shell" is different. C&C Bintang (which distributes Mazda cars) would then subcontract Ford to assemble the cars for them.

Concerning local vendors, most of the local parts originate from the mandatory deleted items such as wheels, shock absorbers, seats, cushion, seat belts, carpets, etc. This is mainly done in an attempt to reduce the price as much as possible and to be able to be competitive. The engines are assembled in Malaysia and parts are imported depending on the models.

Ford vehicles are distributed under three different groups of distributors: Ford concessionaires, independent dealers, and Federal Auto Group. The

[44] MAA Statistics
[45] MAA Statistics

concessionaires are owned by Tractors Malaysia and are exclusively selling Ford models. Independent dealers are working under a Ford banner and most of them are exclusive to Ford but some sell other brands such as Mazda. Additionally, Volvo's dealers (Federal Auto Group) will likely distribute some Ford models along with Volvo cars in the future.

DRB Oriental Honda (DOH)

DRB Oriental Honda (DOH) is a joint venture between the DRB HICOM Group (36%), Oriental Holdings (15%) and Honda Motor Corp. (49%). This means that Malaysian parties hold the majority with a total of 51%.

With an annual production capacity of 23,000 units, passenger car assembly at Oriental include the Honda Accord, Civic, City, CRV; and Oriental does contract assembly of the Mercedes-Benz E-class. A total of 7,355 vehicles (including Honda, Hyundai, Peugeot, and Mercedes) were assembled in this plant in the year 2000.

DOH is now in the process of building a new plant in Malacca. The new plant will be at a 32-hectare site near Pagoh in an industrial estate established by DRB-HICOM subsidiary, HICOM Indungan Sdn Bhd (HISB). Construction has begun in September 2001, and should be completed within a year, with the first units rolling out in early 2003. Output will be intended for domestic as well as export markets. Until then, DOH will continue to have its vehicles assembled under contract at Oriental Assemblers after which Oriental will move to assembly of mainly Hyundai vehicles.[46]

DOH has signed dealership agreements with 51 parties, including 39 independent Honda dealers and 12 Kah Motors branches. Virtually every state, including East Malaysia, has at least one Honda dealer and there are also 12 authorized Honda service dealers[47].

The production, sales, and market shares for DOH are broken down in the below table. From this we can see that the financial crisis has hit Honda quite hard in Malaysia and rebuilding will take some time.

[46] "DRB-Oriental-Honda picks Malacca for New Plant," *Autoworld EMZine*, June 13, 2001
[47] "DRB-Oriental-Honda Now in Business," *Autoworld EMZine*, July 2, 2001

Table 6 – Honda Production, Sales, and Market Shares

	1995	1996	1997	1998	1999	2000
Honda PV Produced	11,207	18,677	20,600	1,995	4,778	4,500
Honda CV & 4x4 Production	0	0	0	0	0	1,163
Total Production	11,207	18,677	20,600	1,995	4,778	5,663
Honda PV Sales	11,048	18,355	19,653	4,100	4,606	4,550
Market Share Non-National PV	24.8%	34.9%	37.2%	36.3%	26.4%	22.0%
Market Share Total PV	4.9%	6.7%	6.4%	3.0%	1.9%	1.6%
Total Market Share	3.9%	5.0%	4.9%	2.5%	1.6%	1.3%

** Created from MAA Statistics*

Other Non-National Car Companies

This section will briefly outline the non-national car companies that were not looked at in the previous section. These companies have minor assembly operations in Malaysia. Due to this fact, these companies have a minimal presence relative to the rest, they will be covered in less detail. Companies such as Opel that are exclusively CBU importers and distributors are found in the related industries section.

Additionally, due to certain constraints, a number of makes could not be covered in the study. The level of relative importance of those makes in Malaysia is quite low. Most of them are registering sales of less than 500 units a year and consist mainly of imported CBU units without any assembly done in Malaysia.

The makes not covered in this report include: Alfa Romeo, BMC, Chrylser, Daewoo, Fiat (the franchise holder is named Torino Motors), Hino, Iveco, Jaguar, MAN, and TATA.

All those companies together have been able to sell less than 800 vehicles representing less than 0.5 % of total market.

Cycle and Carriage Bintang (Mercedes)

Cycle and Carriage Bintang (CCB) is the franchise holder and sole assembler and distributor for Mercedes Benz in Malaysia. The group also possesses the franchise for Mazda vehicles in Malaysia. Its mother company is called Cycle & Carriage Limited and has activities all over South East Asia in various industries such as

automotive, food and related products, supermarkets, pharmacies, and property holdings.

C&C Bintang have their own assembly plant, Asia Automobile Industries Sdn Bhd, where they are assembling Mercedes cars and busses. AAI is fully owned by CCB. Currently, Mercedes E, S and C classes are assembled in Malaysia and all other models may be ordered under CBU form.

Auto Bavaria (BMW)

Similarly to its sister company, Ford Malaysia, Auto Bavaria is a division of Tractors Malaysia. However, this division is fully owned by the parent company, Tractors Malaysia. BMW group has now been in Malaysia for 15 years under the name Auto Bavaria. The division is the franchise holder for BMW in Malaysia.

The operations consist of importing CKD kits into Malaysia, assembly, and finally distribution. The assembly of BMW cars is done at AMI's (mentioned earlier under Ford) plant in Shah Alam. The BMW models assembled in Malaysia are: the 3 and 5 series models as well as the new luxury 4x4, X5 SUV. All other models can also be imported if requested by customers however this is very expensive. Worth mentioning that BMW Asia is located in Singapore, mainly, the sales support. This office is covering the whole of ASEAN.

It could also be mentioned that Auto Bavaria is the authorized dealer for the legendary "smallest car", the Mini. The new Mini is being built at the BMW group plant in Oxford, Britain. A total of 150,000 cars will be produced in the first year for the global market. Of this, 150 units will be imported into Malaysia[48].

Volvo

In 1999, Volvo Car Corporation took 100% ownership of Volvo Car Malaysia Berhad. Swedish Motor Assemblers and Volvo Car Malaysia are wholly owned subsidiaries under Volvo International, which is 100% owned by Volvo Car in Sweden. The regional headquarters for Southeast Asia is in Malaysia.

Federal Auto Holding Berhad is 16% owned by Volvo Car Corp and serves as the distribution arm of Volvo in Malaysia. The distribution network consists of 1 showroom, 3 service centers, and 8 "3S" dealers (showroom, service, spare parts).

[48] Thean Lee Cheng, "New Mini to make debut early next year", *The Star*, August 11, 2001

All Volvo cars are assembled at Swedish Motor Assembly (SMA). Capacity of the plant would be estimated to 8,000-10,000 units a year. Last year, the company assembled a total of 1736 passenger cars and 505 commercial vehicles. Among the passenger car assembled, one will find the S40, S60, S80, V40 and the V70. During 2000, Volvo had sales of 1,552 units, less than half of their high of all time of 3,722 units in 1984.

Hyunmal (Hyundai)

Hyumal Motors is the franchise holder for Hyundai Motors in Malaysia. Even though the relative importance of the company remains quite low compared to larger players, the company remains quite properly set into the country. 70% of the company is owned by *Bumiputra* companies and individuals which helps the company to enjoy some benefits related to the national policy.

On March 22, 2001 a joint venture was created - Oriental-Hyundai (Hyunmal 40%, Oriental 60%). Operationally, Hyunmal is mostly responsible for the management of the CBU activities while Oriental-Hyundai of the CKD activities. The two entities exchange 30% of their products in order to keep a certain diversity through their dealerships. Dealers under Kah-Bintang (branch responsible of the distribution of Oriental-Hyundai) will then be distributing 70% of Hyundai's CKDs and 30% of Hyundai's CBUs in Malaysia and vice-versa in the case of Hyundai-Berjaya (branch under Hyunmal and Berjaya). Vehicles are distributed through "3S" dealers (showroom, service, spareparts) as far as possible.

Two different channels are used to distribute Hyundai cars in Malaysia: Hyundai-Berjaya and Oriental Hyundai. Hyundai offers the Elantra, Accent, Atos, Coupe, Grandeur, Senith, Sonata (maybe as a CKD in a near future), Terracen and Trajet models in Malsysia.

Daihatsu Malaysia Sdn Bhd

Daihatsu (Malaysia) imports completely knocked down (CKD) vehicle units from Daihatsu Motors, Japan and PT Astra Daihatsu Motors, Indonesia for assembly and marketing locally on a sub-contract basis by Perodua and Swedish Motors Assemblies. The Daihatsu motor vehicles comprise commercial, passenger, and four-wheel drive vehicles.

The Group is also involved in the sale of spare parts and accessories, repair and maintenance services, manufacture of precision metal stamped parts/ components, tool and die design and fabrication, and manufacture and wholesale

of exhaust systems.[49] DMM Sales has 47 dealers throughout Malaysia, and sells the entire Perodua product line plus Daihatsu light trucks and pick-ups.

Lion Suzuki Motors (Suzuki)

Lion Suzuki Motors (LSM) is the franchise holder for Suzuki in Malaysia. The company is fully owned by Angkasa Marketing Bhd and is an integral part of the Lion Group. Currently, Suzuki of Japan has no activities here. However, there is always some fear that Suzuki might take over once the automotive industry opens up under AFTA full implementation.

Assembly of Suzuki vehicles is outsourced to the Inokom plant and to Kinavalu Motor Assembly (KMA) Sdn Bhd.With the sales of 784 vehicles, LSM's turnover would be estimated to be around 10 million Ringgit a year. Suzuki product range is quite limited in Malaysia. The Jimny (3 doors and 5 doors) is offered under CKD form and the Grand Vitara is imported under CBU form. For distribution, LSM has four sales branches and two service and parts centers as well as 41 independent dealers.

Audi, Volkswagen, & Subaru

Tan Chong has recently taken over the distribution of Subaru in Malaysia and sees this as a side family business. It appears that Subaru may be a back-up for Tan Chong in case of a Nissan take-over.

Audi is distributed by Auto Dunia of Malaysia and assembled by Tan Chong Motor Assemblers. Volkswagen is sold by Auto Dunia as well as Naza Motors but is not assembled here. Through TCMA, Auto Dunia assembles the Audi A4 and A6 here but not the new models. Auto Dunia is keeping the new models out of Malaysia because they want to sell their stocks of old models first or they will never get rid of it.

MbF - Peugeot

MbF-Peugeot has recently lost the franchise for Peugeot cars in Malaysia to C&C Bintang. Interesting to add that the group used to have the franchise of Man (the truck manufacturer) and Jeep in Malaysia but both have been lost through the years.

Peugeot's cars used to be assembled in two plants. Oriental Assemblers were responsible of assembling the 306 model while Tan Chong Motor Assembly was

[49] http://www.klse.com.my/website/listing/lc/mbmr.htm (August 7, 2001)

assembling the 406 model. Today assembly will most likely be moved to C&C Bintang.

Landrover

Landrover is also part of the Tractor Malaysia Group. The parent company would own 60% of the division. Only one model from Landrover is assembled in Malaysia, at Swedish Motor Assembly (SMA). Before, the model was assembled at AMI (Associated Motors Industry) but the production had to be moved in order to leave production capacity for some other models. The Landrover Defender is also offered in Malaysia under CBU form.

Kia

Automotive Manufacturers Malaysia (AMM) of the DRB-HICOM Group will begin to assemble the 1.6L Kia Spectra and aims to sell 3,700 units by year-end and another 10,000 units next year. The remainder of Kia assembly is partaken by AAI, which assembles the Kia Ceres.

Currently, the majority of Kia cars are also brought in CBU and sold by Naza Motors. Since the Kia cars will be in the price range between the Proton and the Japanese cars (about 85,000) they will likely appeal to those Proton owners who cannot afford to upgrade to Japanese cars.

4.3 Related Industries

Related industries include companies operating in automotive-related segments. These companies may exist inside or outside of Malaysia. The areas that will be focused on in this section will be automotive components producers, auto distributors, auto service providers, and replacement parts vendors.

4.3.1 National Automotive Components

"The industry is seen as a means of upgrading local engineering and technical skills and development capabilities to manufacture precision, sophisticated, and quality products[50]."

This quote from a publication of Malaysia Investment Development Authority is a good introduction to the auto components industry in Malaysia (it can also be found within almost every publications that deals with auto components industry).

[50] MIDA, Transport & Machinery Industries Division, The Automotive Industry in Malaysia, April 2000

All in all, the whole spirit of promoting the national car industry was indirectly to promote the development of vendors. Automotive was considered as one of the best industries to stimulate secondary industries considering the various areas concerned: steel, plastic, etc.

Historically, automotive parts and accessories were produced as replacement items for imported vehicles. However, the government has introduced a number of measures to promote this sector in Malaysia, the national car project being among them. Presently, around 350 auto components manufacturers can be found within Malaysia. MIDA's automotive industry report[51] contains an extensive list of the various components manufacturers.

Number of Components Manufacturers

The number of components manufacturer in Malaysia is a relatively paradoxical issue. Observers from the industry affirm that the industry may consolidate due to pressures from the market opening up to AFTA. On the other hand, the number of manufacturers already appears to be quite limited making it hard to undergo further consolidation.

Proton is of crucial importance to auto component manufacturers. Proton has over 60% of the Malaysian automobile market. The company production of a limited range of vehicles resulted into a narrow product base for the components manufacturers. Beside Proton, it could not be as interesting for components manufacturers to supply other companies since most of them did not enjoy enough volume.

Customers & Products

Components manufacturers are serving customers in three different segments: OEM market, replacement market, and export market (see figure 19). According to MIDA, around 70% of the automotive components manufacturers would be servicing the OEM market[52]. Furthermore, it is estimated that "genuine" parts account for only 30% of the replacement market due to high prices compared to alternatives[53].

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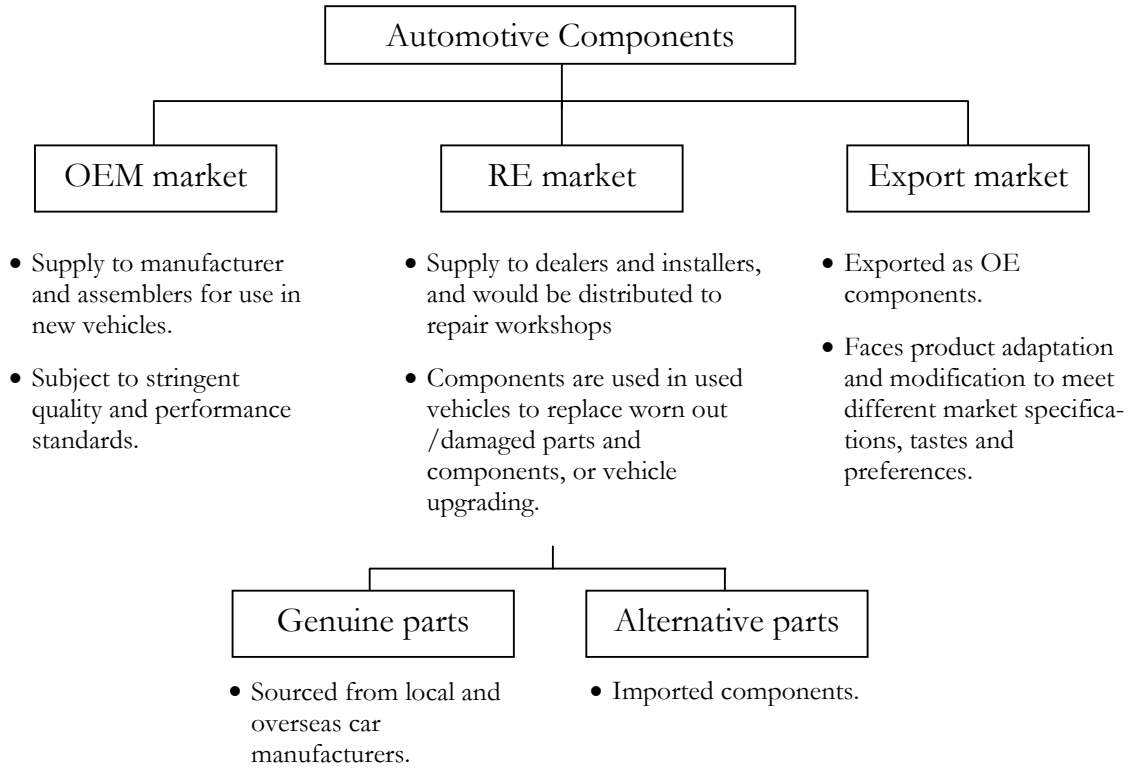
[51] MIDA, Transport & Machinery Industries Division, The Automotive Industry in Malaysia, April 2000

[52] Tyndall, (1999) "The Malaysian Automotive Industry", The ASEAN Automotive Industry – Challenges and Opportunities, Australian Pacific Economic Cooperation Committee

[53] http://www.austrade.gov.au/ (August 22, 2001)

Figure 19 – The Automotive Components Industry



** Source: Study completed by a major bank in Malaysia*

However, Malaysian auto component manufacturers are mostly operating in some limited product range. Figure 20 gives an outlook of parts that are typically manufactured locally and parts that are imported within the country. It can be observed that most of the parts being produced locally are mainly "peripheral parts" i.e. that there are no parts that are directly involved within the core of the engine or transmission system. A factor favoring auto component manufacturers at this level is the Mandatory Deleted Item Policy, which will be covered in section 4.4.3.

External Partners

There is a lack of collaboration with external partners in Malaysia. One of the reasons is probably that Malaysian enterprises still have not felt the threats of competition while they were shielded from foreign actors.

However, the companies could find a new glory if they could ever see the benefits related to joint R&D and increased economies of scale. The automobile business is a very expensive business, everything is about volume in this industry.

Additional plants impeach the company to enjoy further economies of scale and the second plant must be bared as an additional sunk cost.

Global autoparts players such as AC Delco or VDO Mannesman are still seeking economies of scale even considering their size. It might be a good reason for Malaysian enterprises to join the race.

Figure 20 - List of Locally Produced and Imported Engine Components

Locally Produced Components	Imported Components
Body panels and parts	Rocker arm
Engine parts	Cylinder head
Drive	Delivery pipe
Transmission and steering parts	Connecting rod
Drive shaft	Thermostat
Clutch	Insulator
Brakes and suspension parts	Valves
Electrical parts	Piston ring and O-ring
Trim and upholstery	Exhaust manifold cover
Air conditioners	Connecting bearings
Cables	Injector and drain bolt
Seats and carpets	
Exhaust system	

** Source: The Malaysian Automotive Industry (Paramjit Singh Tyndall) and industry sources*

Product Development

Still very few manufacturers can claim to be modular assemblers. The manufacturers are lagging behind when it comes to design forcing them to operate on the lower end of product manufacturing.

As stated in an article: "ASEAN suppliers and vendors should move from assembly to manufacturing products and develop world class parts that can be marketed globally.[54]" Once again this would allow the various companies to join world rank and be able to follow the trends in world automotive manufacturing. More opportunities could arise by following this world trend.

[54] Shan, S., "Positive Notes for Auto Industry", *Malaysian Enterprise*, August 2000 p:21

R&D

One of Malaysia's biggest challenges is to incite its manufacturers to invest more in R&D. Currently, local companies are lagging behind in terms of technology advancement and budgets are kept at minimum levels when it comes to R&D. According to a source from the industry: "That is where the Malaysian vendors are losing out". They still focus too much on short-term profit.

On the other hand, Thailand is aware of the importance of R&D in order to build up a competitive industry. An illustration of such preparation is the case of Sammith Motor, a parts manufacturer, who has implemented its own R&D for the REM steel roof market or Stanley Electric. The company will supply dies and parts form Thailand to its plants in India and Vietnam. For its die-making facilities, the Thai plant has an R&D centre and an integrated production system for automobile lamps.

When asked about recent trend in the automotive industry, a supplier of replacement parts answered: "Ceramic discs are a new trend but there is *no possible way* that Malaysia will acquire this type of technology." When it comes to braking system, Malaysia is better at drum brake systems a technology way outdated considering that most of the market is now heading to disc brake system.

If Malaysia ever wants to be competitive on a global scale, the industry will have to find ways to bring in hi-tech products such as "ceramic discs."

Automotive Component Tariffs

Duties on some imported auto components in Malaysia have a large tariff range. Today, 91.7% of Malaysia's imported products are already in the CEPT scheme with duties of 0-5%. This is just below the ASEAN average, which is 92.7%.[55] However, it is difficult to tell which of these products are actually automotive components. Our view is that the tariff rates of most auto components are still above the CEPT levels of 0-5%, but much below CBU and CKD tariff rates. The tariff rates are different for each product depending on factors such as the amount value added. There is a book available at Malaysian customs that specifies all tariff rates.

[55] Seminar on AFTA, MITI, August 2, 2001

4.3.2 Non-National Component Suppliers

There are two categories of non-national component suppliers as broken down by our protected industry model. These include the companies that send components to auto manufacturers in Malaysia from within ASEAN and those that exist only outside of ASEAN.

Non-national components manufacturers could be further divided into two groups. First we find the ones operating in the higher range of products with high technological content and at the forefront of the global market trends in product development and design. Most of the companies included in this category originate from developed countries from Europe, North America or Japan. A second category includes the components manufacturers operating completely at the other end with much cheaper products that are simpler to produce. Companies that originate from countries rich in cheap labor would most likely belong to that second group. China could probably be cited as the main constituent of that group with Thailand following very closely.

A key issue to be considered is automotive components coming into Malaysia from China. Since China has entered the WTO, there is a threat to Malaysia and much of Asia of very cheap raw materials and parts that come from China flooding the markets and putting local suppliers out of business.

Additionally, components coming from ASEAN countries such as Thailand can generally undercut Malaysian prices by about 20 percent. With barriers being smaller, it is possible that many manufacturers would switch to the much cheaper foreign parts.

4.3.3 Examples of Areas of Business

The following section will shortly report the situation for some definite car components on the Malaysian market. Those very specific components have been arbitrarily chosen to match our outlined ThyssenKrupp companies in the introduction. These components are chosen as working examples.

Shock Absorbers and Leaf Springs

Both products were chosen separately but they are treated under the same section since they are closely related in Malaysia. As a matter of fact, most shock absorber vendors are also supplying leaf springs.

Firstly, APM Automotive from Selangor is probably the most important vendor of shock absorbers and leaf springs in Malaysia. The company supplies around a dozen automotive companies with leaf springs and 24 with shock absorbers.

A second considerable player on the Malaysian market is UMW. Through UMW-Toyota Motor, UMW is the franchise holder for Toyota in Malaysia. The company also has a subsidiary producing shock absorbers and leaf springs. UMW is quite competitive since the company is also supplying Toyota in Japan. Tying up with such a partner could eventually turn out to be an appropriate way to be reach Japanese companies.

Other manufacturers may also be cited even though they are not as big as the two previous ones. It has been relatively hard to find information about those groups. Amstrong Auto Part Sdn Bhd based in Kedah makes some shock absorbers. Concerning leaf springs, Golding Enterprise, from Kuala Lumpur and Kumpulan Belton from Perak are operating in the industry but appear to remain minor players.

Crankshaft

Crankshaft was the third part chosen in order to take account of the potential of the industry regarding engine components. Nevertheless, it appears that no companies actually produce this part in Malaysia. This could be probably attributed to the fact that most of the assemblers are importing engines that are completely build up in a foreign country. The low volume of motor vehicle sales in Malaysia does not justify investment into a die casting plant for the moment. Ford and C&C Bintang distinguish themselves at this level by assembling their engine in Malaysia but most of the parts are imported from abroad depending on the model.

National car companies, Proton and Perodua are moving towards assembly of their own engines in Malaysia in order to reduce dependence on Japanese (Mitsubishi & Daihatsu) and European (Renault) suppliers. However, their crankshaft seems to be built "in-house".

Replacement Parts

Some companies operating in the replacement market are worth mentioning. Gegroco is a local business importing shock absorbers especially for German makes. FNS, represented in Malaysia by Jebsen & Jebsen, is a well-established trading house and operates within the replacement market for shock absorbers. According to some industry source, the company is really successful in their area

of business. Another supplier is EP Manufacturing situated in Shah Alam. Details on the company are not available but the company has a technical partnership with Japanese companies Koito Manufacturing Co Ltd, Imasen Electric Industrial Co Ltd, Suiryo Plastics Co Ltd, and Nagase & Co Ltd. Other joint collaborations have been entered into for the design of automotive components such as with TEA, a member of the Berto Lamet Group (Italy) and Jin Awang Piin Industrial Co Ltd (Taiwan), which enhances the transfer of technology to the Group. The group supplies to both Proton and Perodua.

4.3.4 Auto Components Manufacturers Associations

Various institutions affect the auto components industry in Malaysia one of the most influential being the Malaysian Automotive Component Parts Manufacturers (MACPMA). Most MACPMA members are automobile components manufacturers (except for a few motorcycle parts makers). The main objective of the association is to promote the expansion of the market for part manufacturers[56].

There are four other institutions of interest:

- Malaysian Automotive Association (MAA)
- Automotive Federation Malaysia (AFM)
- Malaysian Motor Vehicle Assemblers Association (MMVA)
- Malaysian Motor Traders Association (MMTA)

MAA is by far the most interesting association among the ones cited above. Previously known as the Federation of Malaya Motor Trader Association (FMMTA), MAA communicates with the public on industry issues, positions, and objectives. The organization is also responsible of representing its members (210) toward governmental agencies on issues affecting the motor vehicle industry. An important part of the statistics used in this report originates from that organization. The association also organizes networking activities in order to create tie ups between the various members.

4.3.5 Distribution, Service, and Replacement parts

The distribution and service sector of the automotive industry is controlled almost exclusively by the automotive assemblers themselves. Many of the major auto companies have their own distribution arm that is owned by the parent company.

[56] The study on selected industrial product, Development in Malaysia: Automobile metal parts, MIDA, April 1989

Additionally, some assemblers allow for some independent sales outlets. The major auto distributors in Malaysia include EON, Proton Edar, Kah Motors, Auto Dunia, Federal Auto Group, UMW Toyota Motor, Perodua Sales, USF, ACM, Directional Malaysia, Cycle & Carriage, Edaran Tan Chong Motor, Daihatsu Malaysia, and Naza Motors.

Most of the above distribution branches also have service and replacement parts departments at the same location. However, there are also many independent service centers and replacement parts providers located in Malaysia.

The distributors and service providers have been outlined previously under their respective auto manufacturing companies in the core product manufacturers section.

CBU Importers

There is one small category of car companies that does not fit in core product manufacturers. These are the companies that do not assemble at all in Malaysia but instead rely solely on CBU imports.

An example of a company doing this is Opel. As most people know, Opel is known to be under the General Motors umbrella throughout most of the world. However, General Motors currently has no operations in Malaysia. But it is rumored in the industry that GM is negotiating with the DRB-HICOM Group (ACM - Isuzu) to create a local presence. The only operation related to General Motors in Malaysia is the franchise holder for Opel, Europel Sales Sdn Bhd. Europel has no relationship with GM, it is 100 percent locally owned by Europel Sales Sdn Bhd. This is a subsidiary of the FIMA Group.

Today only three CBU models are sold and there has been no assembly since 1982. The three models include Opel Astra 1.6 16v, Opel Omega 2.2 16v, and Opel Zafira MPV 1.8. 2 CBU models are imported from Germany, the other is assembled in Thailand and sourced through the General Motors distribution centre in Singapore.]

Renault also has no assembly inside Malaysia but plans to have a large presence in ASEAN by 2010 and is eyeing Thailand, Malaysia, and Indonesia.Part of the Berjaya Group, Quasar Carriage Sdn Bhd is the Malaysian distributor and importer of Renault vehicles. Quasar has a chairperson that is involved in Berjaya that is responsible for APs and importing of CBUs.

Other models that are solely distributed in Malaysia solely under CBU form are Citroen, Fiat, Jaguar and other makes for which the level of sales remains low.

4.4 Government – Barriers and Support

This section outlines the various barriers and support imposed by the government on actors within the automotive industry. Policies affecting auto manufacturers and auto component manufacturers will be discussed. Additionally, the supportive programs provided to potential investors will be looked at.

4.4.1 Policies and Legislation Influencing the Malaysian Auto Industry

Import Regulations

Rules concerning imports of goods in Malaysia are illustrated in the Customs Act 1967[57]. Most of the powers regarding customs issues lie in the hands of the Director General of Customs (DGC). The DGC has the power to cancel or amend in his absolute discretion any Import License granted.

Motor vehicles can be imported under two forms: CBU and CKD. Both goods need a license issued by the Ministry of International Trade and Industry (MITI). The process for both of them is slightly different.

CBU

Regarding CBUs, the first step is to get an approval permit (AP) from MITI. More details on the AP will follow in a separate section to follow. An AP is required for both companies and individuals willing to import a car within the country. A non-tariff barrier at this level implies that the import of CBU should not be higher than 5% of total industry sales.

Once the AP is submitted, the person/organization must clear custom duties on the vehicle. Invoice and other related documents must be supplied at this moment. Officials from customs base the value of the vehicle imported according to a price list approved by MITI, this is commonly know as the "car docket price".

The duty rate varies along with the engine capacity. There are five different rate levels to be applied based on engine capacity, these are displayed in figure 21. Along with the AFTA spirit, Malaysia's CBU import tariff should not be higher than 20% by 2005.

[57] Customs Act 1967, Perintah Kastam (Larangan Mengenai imports) 1998, Customs (Prohibition of Imports) Order 1998, (P.U. (A) 210/98)

Figure 21 - Duties on Completely Built-Up (CBU) Vehicles

Import Duty (Passenger Cars)		
	Less than 1800 cc	140% of CIF
	1800 to 1999 cc	170% of CIF
	2000 to 2499 cc	200% of CIF
	2500 to 2999 cc	250% of CIF
	3000 cc and above	300% of CIF
Import Duty-trucks	for all engine	50% of CIF
Import Duty-bus	for all engine	30% of CIF
Sales Tax	10% on (CIF + Import Duty)	

** Source: MIDA*

Finally, a sales tax of 10% (flat rate) will be imposed on top of the accumulated value of the car (value of CBU plus import duties). An illustration of the process is illustrated in figure 22. The importer could also be charged with storage fees, which are based on the period the vehicle has been warehoused at the customs.

Figure 22 – Example of Taxes and Duties Applied

Pricing of a BMW330iA (engine capacity 3000 cc)

Evaluated price	RM 75,000
Custom duties	RM 225,000 (300%)
Value	RM 300,000
Sales Tax	RM 30,000 (10%)
Final Price	RM 330,000

** Source: own elaboration*

CKD

A license issued by MITI is also required to bring in any CKD units. Getting license for CKD is somewhat easier to get than an approval permit (AP). Similar to CBU, the organization must subsequently clear custom duties on the CKD. The duty rate varies along with the engine capacity and also the type of vehicle.

There are five different import duty rate levels to be applied on CKD based on engine capacity, displayed in figure 23 for passenger cars, figure 24 for 4X4, and in figure 25 for commercial vehicles. One can notice the substantial difference between the various tariffs, making commercial vehicle and 4X4 more attractive on a price basis than passenger cars.

Once import duties are paid, cars are assembled at their respective plants. A car assembled in Malaysia is subject to excise duty. Excise duty is applied to some products manufactured in Malaysia. Goods that are still subject to excise tax today are belonging to either one of those categories: motor vehicles, motorcycles, cigarettes, liquor, and games (playing cards & Chinese Mahjong). The companies involved have to fill out the excise #7 form. The rates are fixed by the Prime Minister Cabinet and are announced through the yearly budget. However, excise duties have not been changed since 1991.

Figure 23 - Duties on CKD Vehicles (passenger cars)

Import Duty	**Engine Capacity**	**Duty Rate**
	Less than 1800 cc	42% of CIF
	1800 to 1999 cc	42% of CIF
	2000 to 2499 cc	60% of CIF
	2500 to 2999 cc	70% of CIF
	3000 cc and above	80% of CIF
Excise Duty	Open Market Value (OMV)	Rate
	1st RM 7,000	25%
	Next 3,000	30%
	Next 3,000	35%
	Next 7,000	50%
	Next 5,000	60%
	On balance exceeding RM 25,000	65%

** Sources:* *- MIDA*
- Excise Duties Order 1991, (P.U. (A) 381/1991)

Figure 24 - Duties on CKD Vehicles (4WD and MPV)

Import Duty	Engine Capacity	Duty Rate
	Less than 1800 cc	10% of CIF
	1800 to 1999 cc	20% of CIF
	2000 to 2499 cc	30% of CIF
	2500 to 2999 cc	40% of CIF
	3000 cc and above	40% of CIF
Excise Duty	30% of Open Market Value (OMV)	
Sales Tax	10% of (OMV + Excise Duty)	

** Sources: - MIDA*
- Excise Duties Order 1991, (P.U. (A) 381/1991)

Figure 25 - Duties on CKD Vehicles (truck and bus chassis)

Import Duty	Nil
Excise Duty	Nil
Sales Tax	10% of OMV

** Source: - MIDA*
- Excise Duties Order 1991, (P.U. (A) 381/1991)

It can be seen in the previous figures that excise duty is applied on the Open Market Value (OMV). One has to be aware that a certain process exists between the plant and the moment at which the manufacturer pays excise duty. Once the vehicle is out of the plant, the manufacturers must submit a certain price for the new vehicle. The price should also be broken down in order to provide an explanation and justify the given price. Figures relative to raw materials, costs of labor, commission to sellers, other spending, and also profit margins should be part of those explanatory notes. Of course, the profit figures submitted should go along with the position of the car concerned in the industry. A higher profit margin will be more tolerated in the case of BMW and Mercedes than in the case of Ford. A committee composed of several government levels (MITI, Road and Transport department, Customs, MIDA, and Treasury) then looks into the matter and establishes a given price. This price could always differ from the one submitted by the manufacturer. The specific price is then submitted to the custom department who approves or raises the price of the given vehicle. However,

customs agree most of the time on the price stated by the committee. This very final price recognized by customs is designated as the Price for Open Market Value (OMV) or simply, the approval price. The process is valid for both national and non-national car companies.

Excise tax is paid once the vehicle has been sold to the customer. However, the manufacturer has 4 years to pay excise duties, i.e. they have 4 years to sell the car without bearing the excise duty cost.

Special Treatment

National vehicles enjoy some additional benefits when it comes to import duties and excise tax. Proton has a lower level of excise duty than non-national cars (70% rebate). However, Proton's sales tax is calculated in the same way than other non-national cars (10% of the calculated amount of excise duty plus OMV). Perodua also has its set of benefits. The company has been exempted of import duty for the initial 5 year period (like Proton). Perodua also enjoys a 50% rebate of excise duty for its various models but still pay the full amount of sales tax (similar to Proton).

Additional Factors – Road Tax and Insurance

Additional factors that influence the price of a vehicle are road tax and insurance. Road tax is paid yearly and gets larger as the engine capacity of the vehicle gets larger. Road tax is paid when the vehicle owned registers their car. The road tax department is responsible of coordinating this system.

The National Bank is indirectly responsible of the insurance. Currently the system allows you to insure your vehicle at two levels: responsibility and collision (which are commonly known as 1st part and 2nd part). However, the insurance system might undergo some changes in the near future.

The Budget

Every year in October, the Malaysian government releases the budget for the upcoming year. The budget serves as an excellent indication of exactly what changes the government will make over the next year. The only thing related to the auto industry that was present in the budget of October 2001 was that there would be a reduction in tariffs to 60% for motorcycles in Malaysia.

4.4.2 The Approval Permit System

As we have seen previously, AP's are required in order to import CBUs within Malaysia. The number of APs released should not exceed 5% of total sales of the industry. It is required for both passenger cars and commercial vehicles. The requirement was implemented in the 1970's to protect the local assembly industries.

Any person or company can apply for an AP. The application must be made at MITI. A committee, the AP committee, is the body responsible for the management of the system. The committee is composed of various government officials at various levels of the government and reports directly to the Prime Minister.

An AP is good for one year. Data on the number of AP issued and the number of AP holders is not available. Basically, one AP is valid for one CBU, the nature of the vehicle does not matter. Imports of used/reconditioned passenger cars are restricted to those below 5 years based on the date of vehicle registration. Commercial vehicles should be less than 10 years old.

APs are most of the time given to AP quota holders who are generally motor vehicle assemblers which are composed of at least 70% *Bumiputra* employees or *Bumiputra* individuals. Franchise holders that do not possess any AP have to go through AP holders for vehicle imports. This practice is however not considered as being "legal" but seems to be tolerated.

Regarding this issue, one has to keep in mind that "the rules of the game" are not fully transparent and are very unstable. They can change along with the persons responsible of the system making it even harder for members from the business community to make any plans regarding the import of CBU vehicle.

Reasons for getting APs are exposed in the sections below.

Companies

Companies are using APs mainly for two reasons. First, some customers are willing to pay a certain additional fee in order to get a model of his or her favorite make which is not assembled in Malaysia. The customer in question then requests a direct import from abroad. A good illustration of this case is the commitment of C&C Bintang (Mercedes franchise holder in Malaysia) to bring in any model requested by customers. Similarly, the demand for some other models such as

Citroen and Fiat makes it impossible to establish an assembly plant here in Malaysia. The only solution is then to bring the vehicle in under CBU form.

Another reason that pushes companies to apply for APs is for marketing purposes. Before starting the assembly of a certain model of vehicle, the company brings in a few units of a specific model. The units imported are used for promotional activities towards journalists and customers and for test purposes.

Most of the companies have at least 100 AP a year. Some companies even have a distinct division, managed by *Bumiputras*, that takes care of the matter.

Individuals

Malaysian citizens who have been abroad for more than one year may be allowed to import one CBU in their lifetime. The person in question must have the vehicle registered under his or her name for at least 6 months and must fill the appropriate form at the government at a Malaysian embassy.

Additionally, according to last year's budget, professionals were given special APs good for two vehicles if they move back to Malaysia and stay. This has been done in order to bring back good employees. Also, members of the armed forces get tax exemptions of about 50% when they bring in cars with APs.

Warning

One has to be aware that APs are a **very** sensitive political issue. The matter is intimately linked with the National Economic Policy (NEP). Investigating about the subject might bring suspicions and people may adopt a defensive attitude towards the discussion.

Bottom line, the AP system is an integral part of the protective measures puzzle introduced by the government in order to protect its national automotive industry. The system is very controversial and sensitive considering its political nature. No one has any idea relative to when the system could eventually be removed.

4.4.3 Government Policy Affecting Auto Component Manufacturers

As mentioned, the domestic industry has mainly been developed with the helping hand of the government. Under government policy, some programs have been introduced in order to stimulate the establishment of automotive component manufacturers. Some of those programs are presented in the following section.

Mandatory Deleted Components

Also known as the mandatory deleted item policy (MDL), this program, introduced in 1980, prohibits the import of specific passenger / commercial vehicle components for the OEM market. The 30 parts that are included within this list are displayed in figure 26. It is possible to import the parts shown in this list in Malaysia but they must be directed towards the replacement market only.

It should be mentioned at this level that the mandatory deleted item policy goes against the TRIM (Trade Related Investment Measures) agreement under WTO. The government will have to consider removing it in a near future. Mr. Kumar, Senior Assistant Director – Automotive at MIDA, stated that the government might think about removing the list by 2004. However, sources from the industry raise doubt about this date.

Figure 26 - Mandatory Deleted Components for Passenger and Commercial Vehicles

1. Air Filter	11. Horn	21. Spark plugs
2. Alternator and voltage regulator	12. Leaf spring	22. Starter motor
3. Battery	13. Melt damping sheet	23. Tubeless tyre valves
4. Carpet and underlay	14. Mudflaps	24. Tubing
5. Coil Springs	15. Radiators	25. Tyres
6. Exhaust system	16. Radiator hoses	26. Wheel nuts
7. External body protective molding	17. Seatbelts	27. Windscreen washer
8. Flasher relay	18. Seat and slide assemblies	28. Wiper motor
9. Fuel tank	19. Seat pads	29. Wire harness
10. Glass	20. Shock absorbers	30. U-bold assemblies

** Source: MIDA*

Although the mandatory deleted items shield local vendors from the competition, it hurts them and the industry as a whole. The lack of competitive pressures is directly reflected in the level of motivation of the components manufacturers in improving their efficiency. This could partly explain their low investment in R&D and the small amount of partnerships with foreign companies. Additionally, localization of some components costs car manufacturers delays in releasing new models. Localization is said to cause delays of up to nine months because of inefficient local vendors. Having been 'Proton-centric' for 16 years, many component makers have found that they just cannot bring costs down to levels that are as good or better than those in Thailand.

Local Content Program

The Malaysian government has local content targets for passenger vehicles up to 2.0 liters. Some definite targets have been set for years 1992 onward, 1996 being the actual desired targets. Targets for each year are exposed in figure 27. Some incentives would be associated to the achievement of local content target.

However, according to industry sources, the local content would not be respected by most of the non-national car assemblers. Most of them have local content figures reaching only 30%-40% and that is without considering "pass-through". "Pass-through" designates the intermediaries that imports parts for the assembler and make some minor change to it in order to achieve higher local content.

Figure 27 - Local Content Program for Passenger & Commercial Vehicles

Vehicle Type	Local Content Target (%)				
	1992	1993	1994	1995	1996
Passenger Vehicle up to 1,850 c.c.	30	40	50	55	60
Passenger Vehicles 1,851 to 2,850 c.c.	20	30	35	40	45
Passenger Vehicle above 2,850 c.c.	Mandatory Deleted Items Only				
Commercial Vehicles up to 2,500 GVW	20	30	35	40	45
Commercial Vehicles above 2,500 GVW	Mandatory Deleted Items Only				

** Source: MIDA*

Multi Sourcing

Under the "CKD definition" all the parts of a CKD kit must be imported "in the same box"; all parts must be brought together from their country of origin, Germany for example. It will be seen later on that import duty for CKD units are of at least 42%.

Problems arise when the assembler based in Malaysia imports its CKD unit from Germany but would like to get its gearbox from UK for instance. Under the CKD definition, this part cannot be imported separately for OEM purpose, only if it is

oriented towards the replacement market with tariffs of roughly 30%. However, if the transmission is registered under the multi-sourcing program, this part can be imported for OEM purposes with the CKD tariff as a custom duty (42% or more).

In order to grant the "multi sourcing" status to the part in question, the assembler must apply to MIDA. A committee shall look into the matter and see if the part can be granted the status or not.

All in all, multi-sourcing allows assemblers/franchise holders to import certain components and parts directly from cheaper sources, particularly manufacturers in the region, rather than through CKD kits from the principal company[58].

Noteworthy to mention is that precise information relative to multi-sourcing still remains scarce and some observers from the industry affirmed that benefiting multi-sourcing might not be as easy as it appears.

Other Programs

Other initiatives to encourage growth of the component parts industry have also been introduced. The government has made available, through the Small and Medium Industries Corporation, various funds to enable SMIs (including automotive component manufacturers) to improve their equipment and processes. In 1999, funds totaling RM 2.9 million were approved to 103 component parts manufacturers for consultation services, product development and design, market development, and productivity improvement. In addition, funds totaling RM 6.7 million were approved to 11 components parts manufacturers to be used for modernization and automation of work processes[59].

Opinion from the Industry

Some industry observers stated that the various programs introduced by the government appear to benefit a small segment of enterprising vendors more than the consumers since locally produced parts are not necessarily cheaper than imported ones. Practice of local content combined with inefficient economies of scale simply increase the prices instead of improving the competitiveness of locally assembled vehicles.

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[58] MIDA, Transport & Machinery Industries Division, The Automotive Industry in Malaysia, April 2000

[59] MACPMA (Malaysian Automotive and Components Parts Manufacturers Association) Directory, 2000, p: A7

4.4.4 Investing in the Malaysian Automotive Industry

The major incentives for companies investing in the manufacturing sector are Pioneer Status and Investment Tax Allowance (ITA). However, a number of additional incentives are provided for companies operating in some definite sector.

Pioneer Status

A company granted Pioneer Status will enjoy partial exemption from the payment of income tax. It will only have to pay tax on 30% of its income (corporate tax is 28%). The period of tax exemption is five years, commencing from the Production Day as determined by MITI. In some selected territories, the new company has to pay only 15% of their statutory income during the tax exemption period of five years. Applicable until 2005[60].

Investment Tax Allowance (ITA)

As an alternative to Pioneer Status, a company may apply for ITA. A company granted ITA will be given an allowance of 60% in respect of qualifying capital expenditure (such as factory, plant, machinery or other equipment used for the approved project) incurred within five years from the date on which the first qualifying capital expenditures is incurred. The allowance can be utilized to offset against 70% of the statutory income in the year of assessment. Any unutilized allowance can be carried forward to subsequent years until the whole amount has been used up. The balance (30%) of the statutory income will be taxed at the prevailing company tax rate (28%)[61].

Eligibility for either Pioneer Status or Investment Tax Allowance will be determined according to priorities termed as "promoted activities" or "promoted products" as determined by the Minister of International Trade and Industry. In addition, the level of value-added, technology, and industrial linkages will also be factors for consideration.

[60] Malaysia – Investment in the Manufacturing Sector – Policies, Incentives, and Facilities, 7th Edition, February 2001, p: 11

[61] Malaysia – Investment in the Manufacturing Sector – Policies, Incentives, and Facilities, 7th Edition, February 2001, p: 11

Tariff-Related Incentives

Consistent with its policy of an open economy, the Malaysian Government adopts a trade liberalization approach and continuously reviews the country's tariff structure.

In granting tariff protection, the degree of utilization of domestic raw materials, the level of local value-added, the export potential, and the level of technology of the industry will be taken into consideration. Tariff protection granted will be reviewed from time to time, consistent with the needs of the industry and the welfare of consumers.

Incentives for Strategic Projects

Strategic projects are generally defined as projects involving products/activities of national importance. They involve heavy capital investments with long gestation periods; have high levels of technology and are integrated; generate extensive linkages; and generally have significant impact on the economy.

Such project are eligible for Pioneer Status with full tax exemption at statutory income level for a period of 10 years or Investment Tax Allowance of 100% on qualifying capital expenditure incurred within a period of five years.

Incentives for Export

Manufacturers producing for the export market are eligible to apply for the following:

Double Deduction for Promotion of Exports – Certain expenses incurred by resident companies for the purpose of seeking opportunities for exports of manufacturing products are eligible for double deduction.

Tax Exemption on the Value of Increased Exports – Exemption of statutory income equivalent to 10% of the value of increased exports provided that the goods exported attain at east 30% value-added. Additionally, exemption of statutory income equivalent to 15% of the value of increased exports provided that the goods exported attain at least 50% value-added.

Incentives to Strengthen the Industrial Linkages Program (ILP)

Vendors which propose to manufacture promoted products or participate in activities in an approved ILP will be eligible for Pioneer Status with full tax exemption at statutory income level for a period of five years or Investment Tax Allowance of 60% on qualifying capital expenditure incurred within a period of five years.

Vendors in an approved ILP who are capable of achieving world class standards in terms of price, quality, and capacity, will be eligible for Pioneer Status with full tax exemption at statutory income level for a period of 10 years or Investment Tax Allowance of 100% on qualifying capital expenditure incurred within a period of five years.

4.5 Customers

The customers in the automotive industry in Malaysia include all Malaysians that are interested in purchasing a passenger or commercial vehicle. Today, it appears that little concern is given to the conditions the customers have to deal with relatively to the automotive industry. Malaysians are burdened with high prices, low quality, and low availability, however the only thing that they can do for the time being is to complain to the government.

Customers also include buyers of Malaysian made cars that are situated outside of Malaysia. These customers are classified as non-national customers. A good way to take these customers into account is to look at the trade of motor vehicles. Trade is found in the following section.

4.5.1 Trade

Imports of cars in Malaysia are more or less going in line with sales and production. CKD units are recovering substantially while CBU level remains quite low, even in the aftermath of the financial crisis. The bulk of the imports remains under the passenger car CKD segment, raising question whether this trend will last in the future or if it might tend to change towards more CBU or simply with more motor vehicle parts. Malaysia imported a total of 273,787 CKD passenger vehicles in 2000. A much smaller amount of CBU passenger vehicles (3,154) were imported in 2000 mainly because of the very high tariffs[62].

Regarding exports; it seems that Malaysia has never been able to recover from the crisis of 1997. Exports of passenger cars and commercial vehicles are free falling since then. This situation is mainly due to the situation of the Malaysian Ringgit rather than the competitive situation of Malaysian manufacturers. As a matter of fact, the weakening of other currencies in the region is making is more difficult for

[62] Figures provided by MIDA

Malaysia's exporters to compete in many of their largest markets (The Ringgit remains fixed at 3.8 Ringgit per dollar)[63].

The amount of passenger vehicles exported in 2000 was quite small considering the amount produced with only 16,270. Commercial vehicle exports totaled 1,113 (2000). Noteworthy to mention is that most of the exported of vehicle from Malaysia are mainly attributed to the National car maker, Proton. Further details about Proton exports will be available later in this report.

4.6 Factor Conditions

Two important factor conditions that have not already been mentioned are labor considerations and the financial system. This section describes these conditions relative to the automotive industry.

4.6.1 Labor Considerations for the Malaysian Automotive Industry

Short comments shall be devoted to the situation of labor when it comes to the automotive industry in Malaysia.

The automotive sector provided 15,000 jobs in average in the last years for the assembly of motor vehicle only and an additional 17,500 (on average) for the auto components manufacturers. Of course, a strong drop (37,000 to 26,000) has been registered from 1997 to 1998 but the industry is now back to normal levels (35,500 jobs in 2000)[64].

However, programs related to the automotive industry remain quite scarce in Malaysia. Some schools are providing courses in mechanical engineering, machine tools and design but they remains quite small. At this level, one can find some help from the German Malaysian Institute (GMI), which is a joint venture project in between the Governments of Malaysia and Germany. This institute is mainly a center for advanced skills training in the fields of Production Technology and Industrial Electronics[65]. GMI has previously worked in conjunction with some companies operating in the automotive industry in order to train some employees. Proton was among the participating companies.

Recently, MARA (Majlis Amanah Rakyat) announced that an Institute fully dedicated to the automotive industry would be established in Kulim, province of

[63] GK Goh, Economics Notebook - Malaysia, July 2001, p:2
[64] MIDA, Transport & Machinery Industries Division, The Automotive Industry in Malaysia (partial study), July 2001
[65] German Malaysian Institute, Kuala Lumpur, Corporate Presentation, July 2001

Kedah. The institute has been established along with the Spanish government and will provide its student with skills required to work within the automotive industry. Classes mostly emphasize on the practical level and not on theory. Most of the programs focus on design and manufacturing.

4.6.2 The Financial System and the Auto Industry

An average car buyer in Malaysia does not have very high disposable income for the purchase of a new car, especially considering the price levels. Therefore, the financial sector plays a large role in financing car buyers. Car financing serves mainly first-time car buyers who are more reliant on loans.

Malaysia has a very customer friendly automotive financing system. Purchase interest rates are at a modest 6 to 7 percent and financing is available for 85 percent of the total vehicle cost, up from 70 percent a few years ago[66]. There is also the possibility to opt for extensions of the repayment period to as long as seven years. All of these perks lead to a small down payment (as low as 10 percent) and relatively low monthly payments.

An illustration of the importance of car financing is EON's situation. As well as being Proton's major distributor of motor vehicles, EON is also a large bank. An estimated 70 percent[67] of EON profits are from EON Finance, which earns most of its millions from Proton cars. However, if EON loses distribution rights for PROTON cars, EON Finance will also lose its business and this will lead to serious financial difficulties.

4.7 Chance & External Factors

4.7.1 War against Terror & Global Economic Slowdown

With the terrible events of September 11, 2001 and the subsequent war on Afghanistan the external environment is becoming increasingly uncertain. The world has changed considerably in just a few months. The trouble with such momentous events is that they make it hard to see what is coming next.

Led by the influential US economy, the global economy seems to be slowing, stock markets dropping, and unemployment rising. At this point in time it is difficult to see the future for the world economy. Many companies seem to be

[66] "Motor sector headed for better times," *The Edge*, May 28 2001, p. 6
[67] Barrock, L., "EON forced into a Corner," *The Edge* – p.14, May 28, 2001

holding back investments as protective measures until the economy becomes more stable.

4.7.2 China and the WTO

China's recent accession to the WTO can be viewed as a significant external factor. As China builds itself up and becomes competitive with the rest of the world quality wise, many markets will be filled with cheap Chinese products. This could have a large effect on a country such as Malaysia. The question is how long it will take until Chinese firms become globally competitive.

China is already attempting to strengthen ties with ASEAN nations. In August 2001, China actually made a proposal for a China-ASEAN free trade agreement. This agreement would include tariff reductions to be phased over seven years 2003-2009. China proposed to focus on labor intensive products which would allow ASEAN nations to develop their economy by moving into more high-tech products. However, ASEAN representatives are said to have reacted cautiously to this proposal, suggesting a ten year time frame for an expanded free trade area.

4.8 Industry Networks and Clusters

This section portrays the degree of clustering that has taken place within the Malaysian automotive industry. These clusters contain important relationships that help to define them.

4.8.1 Clustering within the Industry

Manufacturing in the automotive industry in Malaysia has gone through a degree of clustering over the years, especially since Proton has been around. The majority of assembly plants and component suppliers are located in Shah Alam, Selangor Darul Ehsan. The main reason for this is that this is where the headquarters of Proton are located. Proton likes its suppliers to be in the same vicinity as the manufacturing plant so delivery times are reduced and there is more flexibility.

Another area with a high concentration of automotive component manufacturers is in Rawang, Selangor Darul Ehsan. This is the location of the headquarters and manufacturing facilities of Malaysia's second national auto company, Perodua. Many non-national assemblers have also set up in these two areas since this is where all of the component suppliers are located.

In addition to the two main automotive clusters, Proton is in the process of creating a third called "Proton City." Proton has invested millions of Ringgit (for

the purchase of land and earthworks) in a second plant on a 202-hectare site in Tanjung Malim, Perak. The proposed plant is planned to be the most modern in South East Asia with state of the art automotive manufacturing facilities.

Apart from Proton's factory, many component suppliers would also establish their facilities around it so that delivery times would be short. Its location next to the N-S Expressway was also strategic, providing an easy road link to the entire west coast.

However, due primarily to the 1997-99 regional financial crisis, Proton has deferred its plan to set up its Tanjung Malim manufacturing plant due to the need to avoid heavy investments. The company is still conducting a study on whether to go ahead with the plant every six months.

4.8.2 Networks of Relationships

Relationships play a key role in the auto industry in Malaysia and many key players are linked through political, shareholding, and operational relationships.

It is common in Malaysia's automotive industry to see the same directors sitting on various company boards. Almost all automotive related companies are linked in some way. Proton is linked to DRB-HICOM through Tan Sri Dato' Seri Mohd Saleh Sulong who is the Chairman of the Proton board of directors and of the DRB-HICOM group. Within the DRB-HICOM group, you will find many automotive related subsidiaries and associate companies. The Malaysian conglomerate can be linked to Isuzu (ACM), Honda (DOH), Proton (AMM & EON), Mitsubishi (USF), Citroen (Directional Malaysia), and Perodua (HICOM Engineering).

Many automotive component companies also have common directors and shareholders. Another example of common ownership is that Mr. Ramli Musa holds the majority of shares in the Ingress Group. Ingress is one of Proton's top ten suppliers and supplies mostly mouldings and doors to Proton. Mr. Musa also sits on the board to Sapura Motors which is a tier one supplier to Proton. Sapura is quite a large component supplier that specials in suspensions, latches, and brake systems as well as various parts for engines and transmissions. Many component manufacturers are linked in some way through shareholders or members of the board of directors.

Automotive manufacturers are also linked to component suppliers. These relationships exist in the form of simple buyer-seller relationships and it is also common for auto manufacturers to own a stake in their major suppliers. All of the

major auto producers in Malaysia have subsidiary and associate auto component companies. There are many of examples of this in the industry a few being: Proton owns a 35% stake in PHN Industries Sdn Bhd which supplies stamping and sub-assembling of metal-based automotive components to Proton. As well, Perodua owns a 30% stake in Ingress Technologies and UMW Toyota has a 52% stake in Kayaba Malaysia Sdn Bhd (the biggest manufacturer of OEM shock absorbers in Malaysia).

Political connections are essential in Malaysia if one wants a successful business. Relationships between automotive related companies and the Malaysian government are common. With Malaysia's complex politics, companies that have recognized *Bumiputra* CEOs or top management have a large advantage over those that do not. If a company has these connections with the government, things will go more smoothly.

Another type of relationship is at the operational level and is simpler than others. This is a relationship between a buyer and a seller. The longer one company does business with another, the stronger the relationship. This is the way it works in most of the world and Malaysia is no exception. These relationships can be either personal between key managers or simply exist because of years of good service between the companies.

4.9 ASEAN & AFTA

Important associations and agreements directly influencing the automotive industry in Malaysia are ASEAN and AFTA. The two will be briefly introduced and implications will be assessed in the following sections.

4.9.1 A Brief Outlook on ASEAN from 1967 to 2001

The founders of the association of Southeast Asian Nations (ASEAN) envisioned it as eventually bringing together all the countries of Southeast Asia to facilitate cooperation in securing the region's peace, stability and development. At the time (1967) the region was in tumult; several countries were struggling for national survival or independence. Thus, only five countries - Indonesia, Malaysia, the Philippines, Singapore, and Thailand - signed the ASEAN Declaration of 8 August 1967.

Thirty-two years later-on 30 April 1999, ASEAN encompassed all ten countries of Southeast Asia by admitting Cambodia. (Brunei Darussalam had been admitted in 1984, Vietnam in 1995, and Laos and Myanmar in 1997). The association had then

achieved the inclusion of all of Southeast Asia within its fold, a goal that it had set for itself at its birth. It had also evolved into one of the most influential regional associations in the world.

Economically, ASEAN belongs to the developing world, but some of its member countries have joined the world's top 20 most competitive economies. Its population of about 500 million constitutes a huge, increasingly middle-class market, half the size of China's. One of every ten persons in the world today is a Southeast Asian.

Besides its economic importance and the natural resources its marine territories are believed to hold, Southeast Asia is also of global strategic importance. It is the bridge between the Indian and Pacific Oceans. It straddles some of the busiest sea-lanes in the world. The oil tankers and freighters that pass daily through these sea-lanes buttress Japan's status as an industrial power.

ASEAN's programme for economic cooperation has evolved since its founding in 1967. By the eighties and nineties, however, as countries all over the world began to dismantle economic barriers, ASEAN countries realised that the best way for them to cooperate for their development in the era of globalisation would be to open up their economies to one another, and eventually to integrate them.[68]

4.9.2 AFTA is born

The most important move towards this new model was made at the Fourth ASEAN Summit in 1992, at which member countries agreed to create the ASEAN Free Trade Area (AFTA). A free-trade area of close to half a billion people-would allow corporations in ASEAN to take advantage of economies of scale. These companies would also have access to the best prices for the raw materials they require, even as competition among them stimulates their productivity and efficiency. It was purported that an integrated ASEAN economy would thus be a potent attraction for investors from outside the region who prefer large, integrated and efficient markets to small, fragmented and inefficient ones.

At the Third ASEAN Informal Summit in Manila in November 1999, ASEAN agreed to accelerate the elimination of import duties (0%) on all products. Tariff

[68] http://www.aseansec.org/ (August 1, 2001)

elimination will be achieved by 2010 for the original six members and 2015 for the new members, with some flexibility.[69]

Import duties on all products traded within ASEAN are required to be fully removed (0% tariffs) by 2010 for the original six ASEAN members and 2015 for the new members. Also by 2003, 100% of products traded within ASEAN are required to have tariffs of no more than 5%.[70] However, ASEAN may show some flexibility in this.

Malaysia has delayed the inclusion of 218 tariff lines on CBU and CKD automotive products until 2006. This delay was to provide the domestic automotive industry with more time to recover from the impact of the regional financial crisis of 1997; and to allow the domestic industry to undertake necessary restructuring exercise and prepare for the market opening under AFTA, without disrupting long-term development of the industry.[71]

The Common Effective Preferential Tariff (CEPT) scheme, which was launched on 1 January 1993, is the main instrument for realising AFTA. To enjoy the CEPT concession, products must comply with the rules of origin (40% local content or ASEAN cumulative content rule). The concessions are granted on a reciprocal basis whereby a member country is eligible for concession if the tariff rate on a product it has included in the CEPT Scheme is at or below 20%. [72] There are four product categories under the CEPT:

Inclusion List (IL)

Products under this list must undergo immediate liberalisation, and inter-regional tariffs be reduced to 0-5% by 2003. New members of ASEAN have up to 2006 (Vietnam), 2008 (Laos and Myanmar) and 2010 (Cambodia) to meet this deadline. As of 2000, there were 45,996 tariff lines in this list representing 82.7% of all tariff lines in ASEAN.

Sensitive List (SL)

These are mostly unprocessed agricultural products which have a longer time frame for liberalisation, and have up to 2010 for the reduction of tariffs to 0-5%, and removal of other quantitative restrictions and other non-tariff barriers.

[69] http://www.miti.gov.my/ (July 28, 2001)
[70] Seminar on AFTA, MITI, August 2, 2001
[71] Seminar on AFTA, MITI, August 2, 2001
[72] http://www.miti.gov.my/ (July 28, 2001)

Vietnam have up to 2013, and Laos and Myanmar 2016 to meet this deadline. As of 2000, there were 240 tariff lines in this list to make up 0.6% of all tariff lines in ASEAN.

General Exception List (GEL)

These products are permanently excluded from liberalisation for reasons of protection of national security, public morals, human, animal or plant life and health. Articles of artistic, historic and archaeological value also fall under this category. There are 836 tariff lines in this list, representing 1.5% if all tariff lines in ASEAN.[73]

4.9.3 Automotive Impact

On May 1st 2000, ASEAN trade ministers who gathered in Myanmar for an informal round of trade talks gave approval for Malaysia's request to extend its deadline for the reduction if tariffs for intra-ASEAN trade of CBUs and CKD kits to the end of 2005. Malaysia's request was made under Article 6 of the AFTA Agreement signed in 1992 (which can be found below).

The reason for the AFTA extension was mainly because Malaysia's auto industry was still in recovery mode after the Asian crisis and needed extra time to get back into competitive shape.

ASEAN members such as Thailand are angry over the AFTA extension and have even threatened reciprocal action by not allowing Malaysia's palm oil imports to enter at the required 0% - 5% basis. Nevertheless, Malaysia has also indicated its strong commitment to AFTA by having 60% of its product lines made tariff-free on January 1st of 2001, the most extensive of any of the members (except Singapore) and 5 years earlier than the latest date agreed.

4.9.4 ASEAN Industrial Cooperation (AICO) Scheme

Since the Malaysian domestic market remains limited for manufacturers of auto components, export remains to be a golden opportunity for most of them. AICO is an appropriate response for manufacturers willing to operate at an ASEAN level.

The basic agreement on the ASEAN Industrial Cooperation Scheme was signed in April 1996 and became effective in November 1996, its objectives being to foster

[73] Study conducted on the Malaysian Automotive Sector by a well known foreign bank

intra ASEAN resource-sharing, industrial complementation and other forms of industrial cooperation. It should also promote economies of scale and enhance competitiveness of ASEAN based companies.

What is an AICO arrangement?

AICO is an arrangement between at least two ASEAN-based companies from at least two ASEAN countries. The companies involved cooperate to manufacture AICO products through resource-sharing. It is not a legal entity but merely an "umbrella association"[74].

All products are eligible as long that it is not under the CEPT general exception list and that the product meets the requirement of being of 40% ASEAN content.

It is then favored that each of the companies specializes within their field of business in order to come up with a final product.

Benefits related to the arrangement

The main benefit related to an AICO arrangement is that the companies involved are granted immediate 0 to 5 % Common External Preferential Tariff (CEPT). CEPT designates preferential tariffs for importing goods among ASEAN countries.

As of July 2001, 125 applications have been submitted for completing AICO arrangement. Among those, 77 (61.6%) have been approved and 26 rejected. In Malaysia, the majority of the arrangements are related to the automotive industry, most of them under ASEAN OEM pack (32 approved) and parts and components (10 approved). Some other arrangements have been registered under food products, plastic products and electrical and electronic.

[74] MITI, ASEAN Industrial Cooperation (AICO) Scheme

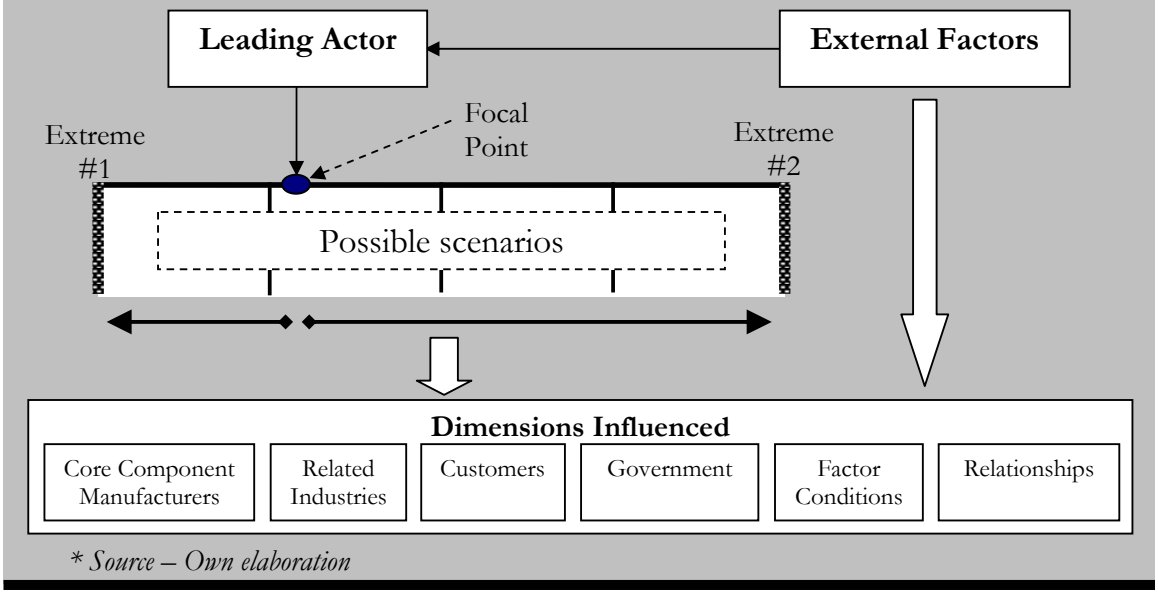
5 ANALYSIS OF EMPIRICAL RESULTS

"For the artist, information overload becomes pattern recognition. What the average person sees as increasingly unmanageable complexity, the artist sees as a new figure/ground relationship, and tries to get that into a form the average person can cope with.[75]"

This quote especially holds true for our situation in this thesis. In this chapter, we have taken an immense quantity of information and attempted to combine it all together in analysis with an end goal of solving the main problem of the thesis.

In order to do so, we shall follow the model presented below. The "anticipating an industry's future" model (AIF) is also of our own construct and will assist us through the various steps of the analysis. As one can see, most of the dimensions contained in the AIF model are not unknown to the reader since it is highly related to the model described earlier, the protected industry model. It has been conceived this way first because we find it appropriate for analyzing the material we have investigated and second, in order to assure the consistency of our thesis. Explanations related to the model will be provided as we go along in this chapter in order to keep the focus on the data analyzed.

Figure 28 – Anticipating an Industry's Future (AIF) Model



** Source – Own elaboration*

[75] McLuhan, taken from van der Heijden (1996), p. 186-187

The analysis consists of several steps. Assessing the current state of the industry will be the first one considered. The excursion into the future will then start at the point where a certain time frame is defined. The major sources of influence, the external factors and the leading actors, shall then be looked upon. The establishment of scenarios and the selection of the most probable one will follow. Finally, the influence that will be exerted on the various dimensions will be presented.

5.1 Current State of the Industry

A good portrait of the Malaysian automotive industry has already been given through the data presented in the previous chapter. However, we would like to analyze the current state of the industry in order to provide a strong basis for forecasting the future outcome of the industry.

A model named the protected industry model has been presented earlier in this thesis (see figure 11, p.43). The reason for presenting the model in the theoretical framework instead of the analysis was that it helped us in structuring the information necessary for this research, i.e. the empirical data.

This model is the one that should be used in addressing the current state of the industry. We shall then briefly review the various dimensions and analyze their current state. In some cases, the information provided in the empirical data section is quite "self explanatory" and does not need any further analysis.

5.1.1 External Actors

It would be impossible to cover the whole array of external factors that ultimately influence the automotive industry in Malaysia. Currency fluctuations of another country, the level of the price of another, the world economy, and several others could be added at this point. It is however possible to identify forces for which the impact on the Malaysian automotive industry will be considerable. The factors that we consider to important at this level have already been described in the empirical data and will also be further presented a bit further in this chapter.

5.1.2 Government

We will use Dicken's ideal type framework to analyze the current state of the government in Malaysia. Evaluating the current ideology of the government will allow us to better define the way the state economy and its industries are managed.

At this point, we would like to specify that our scope of research is limited to one industry, i.e. the automotive industry, and not to a whole economy. The use of Dicken's ideal type framework is then slightly going out of its scope and will be more "localized". In other words, we will use it to give comments on the general situation of Malaysia but most of our analysis will concern the automotive industry specifically.

Following what has been cited earlier in this research, Malaysia can be defined as a plan rational ideology in an ideal type framework perspective. The state is highly involved in the economy through various policies, the NEP probably being the best illustration of this. At the automotive industry level more specifically, the government has implemented multiple policies and regulations that strongly influence the way the industry operates. Most of those measures are located at the entrance of the market with tariff barriers (high import duties) and non-tariff barriers such as the APs and the MDL. It is then clear that the government currently has a strong grip over the automotive industry in Malaysia and the market potential is not fully used.

5.1.3 Core Product Manufacturers

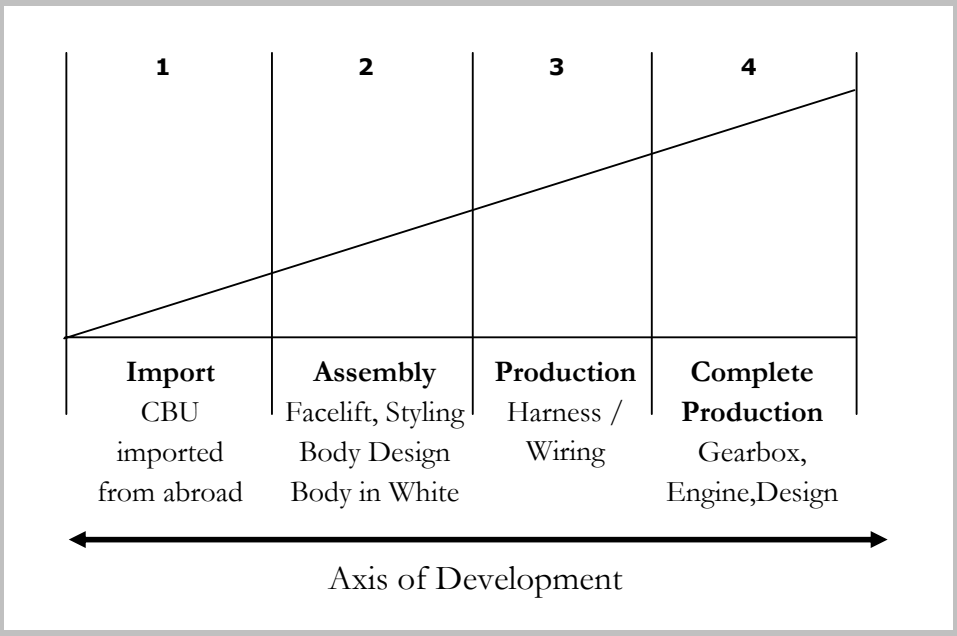
Before getting deep into the analysis of the core product manufacturers, we would like, once again, to bring forward a framework that will assist us in better illustrating the repercussions of our predictions on the core product manufacturers. This framework is highly related to the industry life cycle model but has been modified to fit our situation.

The new model could be termed as being the development of an indigenous product/technology into a new market by a single or a group of manufacturer(s). The stages of the industry life cycle model have been slightly altered and focus on the development of the product. No declining stage is presented in the framework. The declining phase is rather illustrated via a movement towards the left part of the axis of development. For instance, a company that has successfully implemented an indigenous product but does not maintain its position might return to some earlier stage of development. Nevertheless, even if the model has been changed to a great extent, the driving factors of the evolution through the various stages remain the same as the industry life cycle model: the growth of demand, and technology development.

The application of this model to the automotive industry is illustrated in figure 29. This scheme will be used to describe how the chosen scenario will influence the

position of the actors within the core product manufacturers dimension in Malaysia. Considering the very different nature of national and non-national companies, each actor shall be distinguished through this section.

Figure 29 - Development of an Indigenous Product/Technology into a new market



** Source: Inspired by Malaysian Enterprise Magazine, August 2000*

National Car Companies

Three companies are associated with the label "national car companies" in Malaysia: Proton, Perodua, and Inokom. However, the focus will be kept on Proton and Perodua. Inokom will not be considered at this point due to its relative insignificance.

Considering the information presented in the empirical data section, it is possible to route back the evolution of both national companies through the steps of development for cars. Both companies started their operations in the latest stage of step 2 i.e. they were mostly dealing with assembly at the very beginning of their operations. As the companies developed their markets and their technology, they slowly got into the third step of development of the vehicle. The evolution was then slowly going forward into what is actually termed production of the vehicle. Right now, the companies are situated at the beginning of the fourth stage as Proton and Perodua are about to have their own "in-house" production of engines. As stated in the empirical data chapter, Proton is near completion of its

own small engine for the high-volume market, the SENG. Furthermore, both companies have become more involved in developing their own models in the last years.

The current state remains however highly delicate for both companies since the situation remains new for them. Contrary to other globally known car manufacturers such as Ford, Renault, or Toyota - Proton and Perodua have not been developing their own engines and models for several years. The national companies are currently located at the very beginning of the learning curve relative to those aspects and need some time to reach efficiency levels comparable to the "big boys". Two alternatives must then be considered to do so: learn by themselves or through partnerships or acquisitions.

Non-National Car Companies

As we have seen, most of the world car companies have some sort of representation in Malaysia. This is not surprising since Malaysia is ASEAN's biggest car market. However, their presence has diminished to a great extent as the national actors were getting into the market and as the level of the barriers were brought to their current levels.

The number of the world car manufacturers that have made serious investments in the assembly of cars in Malaysia remains quite low. Volvo was the first company to invest in an assembly plant in the country, Ford and a number of others followed. Today, most of the companies' operations vary from the import of CBUs to the assembly of CKD kits. No companies could say that they are actually producing cars in Malaysia according to our terms, i.e. that all of them are contained within the first two steps of the development of cars in Malaysia. The lack of growth of the demand, due to the high prices of their products, is the main factor that impedes the foreign car manufacturers to even consider going higher in the development steps.

5.1.4 Related Industries

Components manufacturers represent the main actors within the related industry dimension. Another group of notorious actors contained in the dimension consists of the distributors which shall be subject to some discussion as well. We shall then solely analyze the current situation of those two actors in the following section. Due to their diverse nature, a distinction will be made between the national and the non-national components manufacturers.

National Components Manufacturers

The national components manufacturers are typically operating in a limited range of products with most of them concentrated at the "peripheral level", i.e. that there are no parts that are directly involved within the core of the engine or transmission system. The aim of the Mandatory Deleted Item List (MDL) was to assure the development of this segment of product. However, the current situation seems to show that the MDL might not have yielded the desired effects since the components manufacturers appear to lack the development level required to support an automotive industry of global standards. Several observations could justify this affirmation: limited number of manufacturers, low investment in R&D, lack of partnerships, and lack of efficiency to cite a few of them.

Non-national Components Manufacturers

Non-national components manufacturers are clearly covering a broad range of products since they are companies that originate from countries all over the world. We would however like to recall at this point that an important distinction must be made at this level: technology intensive products versus low price products. Those manufacturers can be either located within ASEAN or not.

Right now, a number of measures (MDL and local content policy) assure that the non-national components manufacturers operate solely in specific product segments and more specifically in the technology intensive ones such as crankshaft, ABS braking system, etc. As stated before, the number of partnerships between foreign and national components manufacturers remains low.

Distributors

Some of the global market players have a minimum level of representation in Malaysia. Those companies are basically dealing with a company that will distribute their products for them under CBU form. No assembly is completed in Malaysia. General Motors (GM), Citroen, and Fiat are good examples of companies that are not intensely active on the market.

Concerning the rest of the distributors in Malaysia, they mostly are a branch of the major car manufacturers. Those companies are then directly related to their respective mother company. Independent distribution is also a practice that can be observed but is not as popular as the fully integrated distribution branchs. It follows that they remain of (relatively) minor importance for the industry.

5.1.5 Factor Conditions

It is difficult to evaluate the importance of each actor contained in the factor conditions dimension for the automotive industry in Malaysia. However, it is rather clear that two specific factors are of crucial importance for the automotive industry and that they could ultimately be influenced by the future outcome of the industry in 2006 and onward. These factors are the bank system and the labor market.

The Bank System

Malaysian banks have a real fortune invested in financing provided to buyers of a new car. Of course, the cars bought support most of these loans as collateral. In the case where prices stay relatively stable, most of the banks do not encounter any danger. However, a drastic fall in car value from one day to another could lead to a situation where the banks could be stuck with an incredible amount of second hand cars which would be worth much less than they once were. A strong decrease in car prices could then lead the financial system into a deep black hole and banks could have a hard time recovering from the situation, which could even lead to the next financial crisis.

The Labor Market

A considerable number of jobs are created in the automotive industry in Malaysia, a total of 35,500 according to our information from the empirical data section. It is not surprising that the situation could strongly be affected by changes in the industry. However, quality-wise, room is left for improvement.

5.1.6 Customers

So far, the biggest losers of the current situation are definitely the customers. Car buyers are the ones that have tolerated most of the bad aspects related to the current system: high price, products poor quality, and low availability in some cases. Furthermore, no information of any sort is provided to them on the current issues related to the industry. This situation makes them believe in only one hope in this case: "car prices will come down … someday". Up to now, this "someday" is believed to be January 1, 2005. However, as you might know by now, views differs.

5.1.7 Clusters and Networks

As explained through the description of the protected industry model, two different concepts are proposed to analyze the connections contained within an industry. Each concept has been supplemented by a theory in order to provide an appropriate framework for their analysis. Porter's (1990) clusters (mainly geographical) will be used to analyze the "cluster" situation in Malaysia and Jansson's (2000) network theory will be used to analyze the different networks/relationships within the industry.

Clusters

As Porter (1990) states it, industrial clusters are useful in showing the potential of success of an industry through the multiple vertical and horizontal relationships that the different actors have.

Malaysia has a great "geographical cluster potential" since most of the resources and actors necessary for operations are all located in specific areas: Shah Alam or Rawang. The concept of Proton City is another illustration of the importance that the industry confers to clusters. Car component manufacturers and transport facilities are located right next door to the core product manufacturer. This whole situation assures that the flow of resources/information is done quickly. It also favors the creation of new business that could eventually be required such as assembly line maintenance, distribution and logistics companies, etc.

Networks

Through the empirical data section we have seen that relationships and a good network play a key role in the Malaysian automotive industry. The dimensions, the actors within them, and the persons acting as head of those various actors are tightly united, so much that it is difficult to distinguish intra-organizational from inter-organizational relationships. The degree of coupling is therefore relatively high. A number of relations could be qualified as prescribed, however that is solely the surface since it covers numbers or emergent relationships.

Bottom line, as it is right now, the success of a business in Malaysia is strongly related to the status of a person and his/her contacts. Achieving legitimacy is therefore really important in Malaysia if one wants to be successful in the industry.

5.2 Time Frame

Before getting deep into the analysis of the future outcomes of a given industry, it is necessary to define the time frame desired. In other words, how far in the future do we need to look? Setting this up is important in trying to analyze the future since it allows an alignment of the different events that could influence it. The time frame must however be adequate. A considerable time frame will make it hard to produce reliable scenarios and to forecast the decisions of the leading actor. The time frame for making the prediction should also be shorter in industries where the pace is rapid and changes are more frequent.

Two kinds of time frame can be formulated: one for forecasts and one for scenarios. As mentioned by Van der Heijden (1996), it is natural that the time frame for forecasts is considerably smaller than the one used for formulating scenarios since forecasts are more precise tools of prediction.

We have estimated that the useful timeframe for forecasting issues related to the automotive industry in Malaysia should not exceed 6 months. This is mainly due to high uncertainty related to the external and internal environment. Due to those considerations we will not attempt to create numerical forecasts. In such times of uncertainty it is best to concentrate the predictions on the second level: scenarios.

The time period appropriate in this situation for scenario planning seems to be just beyond the key date of December 31, 2004, i.e. January 1, 2005, date for which the Malaysian government is supposed to align its trade barriers to the same level as the ones observed in other ASEAN countries. However, the Malaysian government has indirectly stated that when it said it would open up the industry to ASEAN in 2005 it was referring to the end of the year not the beginning. Consequently the scenarios will be based on what we speculate to happen up to and a few months beyond the critical date of December 31, 2005. Any period beyond this date would be too uncertain and the scenarios would be what Van der Heijden refers to as hope.

5.3 External Factors

External factors are forces originating from "outside" of the industry and the business environment. It is then obvious that the various dimensions contained in the system rather undergo those factors instead of controlling them. Once again, we would like to specify that the effects of external factors on the internal environment are difficult to evaluate with precision.

5.3.1 War against Terror

The conflict in Afghanistan could have several repercussions on Malaysia and on the rest of the world. A long-lasting war could lead to a large drop in economic activity, the ramping-up of defense spending, a surge in unemployment, a volatile oil market, and a drop in global asset values. Furthermore, the war could have deep religious and ethnic foundations and yet one where the enemy is unclear, the weapons entirely new, and the effects of any retaliation from the terrorists, unseen for some time, could eventually make the war long-lasting[76].

These events would then have strong consequences on the world economy, as we shall see soon. Additionally, the attitude towards Muslims, Islam being the main religion practiced in Malaysia, could be affected. The war against terror would then most likely favor a policy of protectionism rather than openness for most of the countries of the world.

5.3.2 Global Economic Slowdown

In the light of a slowing global economy, motor vehicle sales in Malaysia could be strongly affected. A slowing economy leads to large decreases in sales of items such as automobiles; since most of a person's disposable income is needed for necessary goods. Alternative means of transportation could be used such as motorcycles or public transport.

In the case of a global recession, the Malaysian government is likely to keep barriers high. With the barriers still in place, Malaysia may be able to maintain a bubble around the automotive industry to some extent. Of course the Malaysian economy as a whole would be affected but with high barriers it is possible that the impact of the recession would be less disastrous.

5.3.3 Considerations Related to China

Two major considerations have to be looked upon in the case of China. First, China was officially admitted in the WTO on November 10, 2001 at Doha, Qatar. The membership will be effective 30 days following the acceptance of the entrance agreement by the Chinese parliament[77]. This will have strong implications on various aspects related to world trade. China is one of the main sources of cheap labor in the world economy. The opening up of this market therefore

[76] http://www.autopolis.com/ (November 10, 2001)
[77] http://www.radio-canada.ca/nouvelles/ (November 20, 2001)

implies that most countries will have to face competition from China's cheap products.

Second, we have seen that China is attempting to strengthen ties with ASEAN nations. With a focus on labour intensive products, China could be a serious threat to a number of sectors of various industries. The automotive industry would not be an exception.

The Malaysian automotive industry may feel pressured by these events since they could seriously impede the national car components manufacturers to effectively compete on their own market. The pressure originating from China would therefore be a good motivation to sustain high barriers of entry.

5.4 A Leading Actor - the Government

The leading actor is a dimension that enjoys a certain "supremacy" over the others since its decision(s) will shape the future. It must be clear that the dimensions exerting such an influence should not be part of the dimensions influenced, i.e. the lower square of the model, since a dimension cannot really influence itself. For instance, if a certain cartel composed of most of the firms of a given industry is to take the decision, the core manufacturer dimension should not be included in the influenced dimensions. Noteworthy to add is that a "consortium" of various actors could also be recognized as being the main actor, a given group of elite composed of government representatives and people from the business community for instance.

Furthermore, it is necessary to analyze the most probable decisions that this actor will take within the time frame specified. In order to do so, one must analyze the events that "really make a difference" on the attitude of the leading actors. Inspired by Van der Heijden's scenarios model, we have organized those events into three main groups: events related to the phenomenon to be predicted, previous comparable patterns, and other events. One should then be able to come up with the most probable attitude that a leading actor might adopt by considering the various elements contained within those groups.

The government is naturally the most influential dimension in a protected industry such as the auto industry in Malaysia. This section will give a thorough analysis of the various elements that could eventually be of help in defining the attitude of the government toward its automotive industry. The groupings mentioned previously shall then be used throughout this section; however, the government's "consolidated" view will be exposed a little further in the chapter. We would like

to recall that only the dimensions that really make a difference on the attitude of the government towards the automotive industry will be looked upon.

5.4.1 Related Events

The course of actions observed in the industry can be used as a good indicator of future events. In other words, it is always possible to identify the possible outcomes of a situation by means of cause/effect reasoning. Hence, the events that follow have been identified as possible clues that could help us to define the outcome of the Malaysian automotive industry.

Gradual Reduction of the Barriers

The budget for 2002 released on October of 2001 was said to be an indication for the future of the auto industry. With 4 years to go before import duties for ASEAN-built motor vehicles is to fall to between 0 and 5%, one would expect the Malaysian government to begin phasing in a gradual reduction of duties so as not to create a sudden drop in prices in 2005. This was not the case when the Prime Minister made the presentation of Budget 2002. The budget contained nothing related to a change of import duties for 4-wheeled vehicles. Only import tariffs for motorcycles were reduced to 60%. This raises questions as to whether or not the government is serious about meeting the 2005 deadline for tariff reductions.

On the other hand, government representatives expressed that most of the duties will be lifted abruptly in 2005. It is then a possible outcome that the barriers will be removed but only in a sudden blow in 2005.

Revenues Raised Through Duties

The government raises a considerable amount of money through the various customs tariffs and other duties on motor vehicles. In the case where those sources of revenue are eradicated, the government will have to find other sources to counterbalance these losses or simply cut on various government programs financed through those measures.

The government will most likely try to optimize revenues related to the duties either by maintaining the duties as long as possible, to finally remove them suddenly by 2005. On the other hand, the government might find its only comfort through national car companies that could eventually develop enough to stimulate and boost the national economy through employment and higher revenue on tax. In that situation, the duties would remain for an uncertain period of time.

Political Implications of the National Car Manufacturers

As Mr. Rudolph, Group V-P, President/CEO Asia-Pacific of General Motors, puts it: "Protectionism keeps prices artificially high and inhibits the development of efficient automotive industries[78]". Considering this affirmation, it would be important for Malaysia to consider revising the level of protection of its automotive industry.

Almost all automotive analysts believe that Proton market shares will go down if the import tariffs are lifted. A Senior Investment analyst at a leading research firm comment:

> *"Car buyers in Malaysia have very little loyalty to Proton. People of Malaysia want non-national cars and they only buy Proton because it is so much cheaper. They have 60% market share only because of the huge price difference between Proton cars and non-Proton cars."*

Proton has created over 6,000 jobs directly while spinning off 100,000 employment opportunities in sectors like distribution, service, and auto parts[79]. Additionally, with the financial sector on the line as well, the government will likely take all steps necessary to keep Proton on its feet.

Doubts about the ability to compete of the national companies (car and components manufacturers) are constantly raised in Malaysia. While some say that the recent improvements made by Proton with its new models such as the Waja and Perodua in the compact car segment will allow them to find their share of a fully liberalized market, others are still skeptical about their capability to compete. The same kind of arguments holds for the components manufacturers.

One has to understand at this point that the national companies, especially Proton, have implications that go way beyond economical ones. The companies also have great political concerns. Some observers even qualify Proton has being Prime Minister Mahathir's "pet". It is then understandable that the government will take every possible means to assure their survival including keeping a strong grip on the Malaysian automotive industry.

Pressure from ASEAN Countries

The ASEAN countries, with Thailand at its forefront, have a lot to gain out of the removal of the tariff barriers. For those countries, the full implementation of AFTA in the Malaysian automotive industry means access to the biggest motor

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[78] "Automakers Urge Malaysia not to Delay AFTA," *Autoworld EMZine*, October 8, 2001

[79] Ngui, C.Y.K., "Caution Ahead," *Malaysian Business Magazine* - October 1, 2000, p. 32

vehicle market in ASEAN. A bigger export potential for those countries is then involved.

As we have seen, the Malaysian government has decided to use an "escape clause" in the AFTA agreement and defer the full implementation of AFTA since it was experience like a threat to the auto industry. Thailand and Indonesia have demanded compensation as a result of this deferring. The two countries feel that they are losing a valuable export market for automotive-related products in Malaysia. These countries and the regulations of AFTA are strongly pressuring the Malaysian government to cut tariffs on imported cars and components. AFTA's conflict resolution procedures give disputing countries 180 days to reach agreements on compensation or the affected parties are permitted to take retaliatory steps[80]. Thus, Thailand is threatening to block Malaysian palm oil from entering the country, which is Malaysia's number one export. This measure taken by Thailand could eventually influence Malaysia in reducing the level of its barriers.

The Importance of Inter-ASEAN Trades for Malaysia

As a response to the previous event, one should keep in mind the level of trade between Malaysia and the members of ASEAN. We have seen through the presentation of Malaysia that the ASEAN countries are the biggest export market for Malaysia. Nonetheless, the region accounts for 24.3% of Malaysia's 1999 total exports, a figure that remains rather moderate for countries with which trade agreements have been reached. This goes even further considering that this figure is on a decreasing trend for the last years (27.2% in 1996 to 24.3% in 1999). These figures are suggesting that ASEAN might not be at the top of the list for Malaysia when it comes to trade even considering the country's involvement in the association.

The WTO and TRIMS

Since the 1960s, items such as paint, tires, and batteries have been mandatory deletions from CKD packs. However, local content requirements are illegal under WTO rules as they are considered TRIMS which discriminate against foreigners or foreign products. Provisions were made by the WTO for developing countries such as Malaysia to have additional time to abolish such measures; this is how Malaysia got an extension until the end of 2001 in 1999. Since then, Malaysia has requested another extension of two years and there is little evidence that the MDL

[80] Kuan, "Malaysia still at odds on car tariffs," *The Edge*, July 10, 2001

will be removed before this deadline. The reason given by MITI is that the auto components sector is simply not ready for the competition.

Another TRIM that has to be abolished sometime in the future is the AP system. A quota of around 10% of the industry volume is issued each year and recipients are restricted to certain parties. Import permits are needed for any CBU vehicle to be brought into Malaysia and the idea of giving it to certain parties was to assist them to get into the motor business. However, this idea seems to have not worked as intended as many of the permit recipients have chosen to sell their permits to make quick money. While acknowledging that import permits are illegal, the Malaysian government does not seem willing to provide a deadline for abolishment.

5.4.2 Previous Comparable Situations

Previous comparable situations are situations that could be used in order to formulate predictions. Two alternatives can be used at this level: situations that occurred in the same country but in another industry or situations observed in a different country but within the same industry.

It is relatively hard to find an industry in Malaysia that has been through the same situation as the automotive industry. One product that had some affinity with the current situation was the mobile phone, which was highly protected in Malaysia. The product was subject to a 20% import duty and an additional 10% sales tax[81]. That was before the government announced in June 6, 2001 that it would totally eradicate the duties related to the product. However, several reasons make it hard to compare the situation of the mobile phone with the one of the automotive industry. First, the nature of the product is considerably different. For instance, the financing implications of a phone are not as complex as the one of a car. Second, the duty levels on mobile phones were not as considerable as the one on cars. Finally, Malaysia was not really anxious to protect any national producer of mobile phone since there were not any.

Another way to identify previous comparable situations is to find another country that has experienced the same situation in the same industry. Singapore might then be an appropriate benchmark since the country had considerable import duties related to motor vehicles. Singapore now revised its import duty scheme in order to adjust itself to AFTA's requirements. The automotive industry has also

[81] http://www.tiaonline.org/ (November 19, 2001)

been subject to those revisions. However, Singapore has instead enhanced its excise duties on vehicles. This move means that, as far as Singapore is concerned, it really will not make any difference whether a car comes from an ASEAN country or from Japan, as buyers will still pay the same price[82]. Malaysia might then be tempted to adopt the same behavior in order to maintain its high level of barriers.

5.4.3 Other Factors to Consider

Following the previous considerations, there are other factors that could eventually influence the future outcome of the industry. The factors exposed in this section remain rather general and do not have a direct influence on the industry itself, at least not as much as the considerations seen previously. These factors could also be termed as being "other internal factors." However, they can influence the course of events to a certain extent.

Stability of the Government

This factor is not as much under the control of the government as the ones discussed so far. Nevertheless, the government can always take measures to improve its own stability.

We have seen in the presentation of Malaysia that the Barisan National (National Front) dominated the political scene since the independence of the country. This fact suggests that Malaysia enjoys a very stable government. This is increasingly true considering the 20 years of service of Mahathir as Prime Minister. However, the hegemony of Mahathir combined with some of his decisions, such as the sack of his ex deputy Prime Minister Anwar Ibrahim, has raised strong dissatisfaction among the population as shown in the elections of 1999. This situation has raised questions whether or not Mahathir will stay in place for the next election or if he shall finally retire. In the later case, an additional question should be raised: "Who will take over?" Strong faith was put into Anwar as a future prime minister of Malaysia but this option vanished, as we know. It is very hard for the political observers to identify a candidate that could seriously assume the responsibilities of the Prime Minister of Malaysia.

Those factors pooled together, i.e. growing dissatisfaction towards Mahathir and lack of successor, result in a relatively unstable political scene. High uncertainty is

[82] "Automakers Urge Malaysia not to Delay AFTA," *Autoworld EMZine*, October 8, 2001

related to this situation since it is harder to predict who will be in power after the next elections and what their views on the system and its management will be.

As far as the automotive industry is concerned, it would be hard to predict the priorities that a new government would set. The political considerations presented before, i.e. Proton being Maharthir's pet, might have a greater influence than we think and the industry might be so highly protected solely due to the will of the current government, i.e. Mahathir. A new government might not prioritize the protection of the national companies as much and might therefore open up the automotive industry. It is, however, hard to predict the outcome of the next election and, furthermore, to predict the views of a new government.

Social Order

The social order of Malaysia could eventually create problems from a pessimistic point of view. As we have seen, the government implemented several policies in order to increase the wealth of Malays. These various policies can be grouped under a heading labeled National Development Policy (NDP). Up to now, the NDP did not cause any major frictions in between the communities since the phenomenal economic performance of Malaysia of the last years created wealth for most of its citizens.

However, the situation observed since the implementation of the NEP does not necessarily imply that it will be constant in the future. Economic growth in Malaysia is not as spectacular as before the financial crisis. The barriers and policies introduced by the government might also not allow foreign participation to stimulate the economy as much as before. Finally, the economic slump that the world economies are currently going through might not raise the hopes. It is then possible that, under those conditions, the various communities of Malaysia will not find as much comfort as before and that the *non-Bumiputra* blame the B*umiputra* for their problems. This whole situation could escalate and eventually have a considerable impact. In that case, the stability of the economy could, once again be disrupt.

However, one has to bear in mind that Malaysia will probably not witness such a break in its social order. People still remember the events of 1969 and, most likely, they will not let this kind of event hit Malaysia again.

5.5 Scenario Development

The first step in scenario building is to determine an appropriate time scale. A quantitative measure of time must be made and matched to Van der Heijden's regions of *forecasts*, *scenarios*, and *hope* (located on figure 9). The situation in Malaysia is extremely dynamic and uncertain, therefore making predictability low. This means that the time period for making forecasts that will be useful will be quite short. The timeframe we have chosen (2002 to March 2006) has been discussed at the beginning of this chapter.

To lay the groundwork for scenario building, one must first deal with the underlying complexities in the industry. This means identifying the key uncertainties and interpretations of what is happening. The best way to do this is through cause and effect reasoning. In the following sections, a framework will be developed for scenario building and possible actions that could be taken by the government will be outlined.

Instead of strictly using the scenario theories of authors such as Porter, Vander Heijden, or Schoemaker, we have decided to develop our own framework for building scenarios. Van der Heijden's ideas have however assisted in its construction. This framework is a bit simpler and more user-friendly than most theories that have entire books devoted to them. It is then possible to apply it to a protected industry like the auto sector in Malaysia.

It is important to note that our scenario formulation framework is part of the AIF model illustrated at the beginning of this chapter. The scenario building portion of the model will be explained and applied to our specific case, i.e. the Malaysian automotive industry in the following sections.

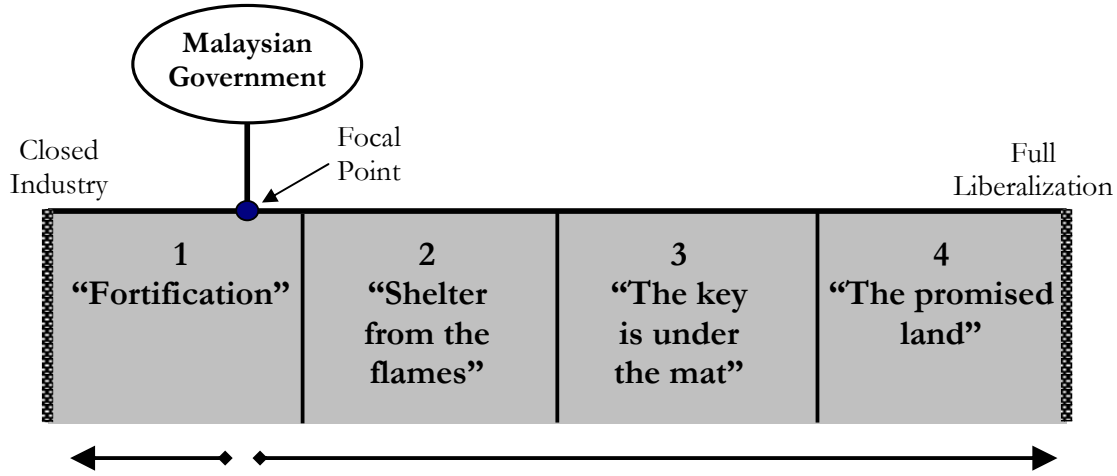
5.5.1 Preliminary Scenario Formulation

Once the current situation has been evaluated and a number of events that could influence the choice of the leading actor have been identified, it is possible to define the extremes, i.e. the spectrum of choice. The two extremes should represent the ultimate decisions that could be considered by the leading actor. For our case the extreme would be that even more protectionism would be imposed by the government and the second extreme would be that the auto industry is fully liberalized, essentially leading to free-trade.

The next step is to put forward preliminary scenarios. The number of preliminary scenarios can vary from a case to another since the number of possible outcomes may vary from an industry to another and from time to time. The basic idea is that

it breaks down the situation into perspective future blocks. Hence, block one is also scenario 1. Names may also be associated to the scenarios. In a conservative perspective it is recommended to define four scenarios: a *left* extreme, a second that keeps the same idea but with moderation, a third that shows reasonable movement towards the other extreme and a *right* extreme. This method is the one we have used in determining the preliminary scenarios for the protected automotive industry of Malaysia. Those preliminary scenarios and the extremes are illustrated on the figure below. The horizontal axis of the model represents the range of decisions that the central actor (the Malaysian government) can make that will affect the auto industry and each block the viable scenarios for the future using the time period mentioned earlier (the end of 2001 up to a few months into 2006). A further description of what exactly each of the four blocks entails will be given in a later section called scenario development.

Figure 30 – Scenario construction for the protected automotive industry of Malaysia



** Source – own elaboration*

5.5.2 The Focal Point

The next step in formulating the scenarios is to determine the central actor of the system and its focal point. The focal point is the current situation of the leading actor on the horizontal axis. Defining the location of the focal point at the beginning is important for two reasons. First, it provides the reader with a good idea about where the leading actor stands. In a case where the leading actor takes no actions to change its current states, the focal point would remain where it is.

Second, it is also useful in developing the various scenarios further since it is possible to relate each scenario to the current position of the leading actor.

For our case the central actor will be the Malaysian government. It follows that almost all future outcomes and their effects on the protected automotive industry are dependent on the government's decisions. Following our findings illustrated in the empirical data section and in the analysis of the current situation, we believe that the current position of the focal point is in scenario 1, which we have termed "fortification." The reason the focal point is located on the right side of this block is that there are more ways to protect an industry than are currently being used by the government. That is, the industry is protected but not to an extreme extent where the borders are closed and the industry is self-sufficient. In a case where the Malaysian government takes no action to change the degree of protectionism over the next 4 years, the focal point would remain where it is and scenario one would stay the current scenario.

The current situation of the focal point is also shown in figure 30. The arrows at the bottom of the model that are pointing left and right are the movements that the focal point can make as time progresses.

5.5.3 Scenario Development

After choosing and positioning an appropriate focal point, the next step is to determine what conditions are present in each block. A brainstorming session should be completed to come up with all of the factors that may cause a change in each of the possible future outcomes. It is worth mentioning that each block is not a set alternative. The width of the block represents a range of actions that could be taken by the government. Therefore, it is possible to take a more general standpoint and refer to the entire block or have a more specific perspective and move the focal point to an exact location on the horizontal axis i.e. as two thirds of the way through block 3.

This process will become clearer in the following section where our scenarios are actually defined. The four scenarios shown in figure 30 will then be analyzed and possible actions to be taken by the government to shape the future of the Malaysian automotive industry will be assessed. It is important to take into account that the scenarios are not specific outcomes; each scenario is in fact a range of possibilities. It is difficult to be specific and come up with a precise scenario since so many factors have to be considered.

A point that should be mentioned is that we have not focused on the tariff levels of auto component suppliers when developing our scenarios. This is because the tariffs are different for each component and the current tariff will soon be brought to low levels.

Scenario 1 – "Fortification"

"The national industry should be protected at all costs."

- Own elaboration

The first block "fortification" is the scenario with the highest degree of protection possible. As mentioned earlier, this is where the situation currently stands in the industry (illustrated by the location of the focal point). Since the focal point is located close to the right edge of the block, the only way this scenario may remain is if there are either no changes at all in the current industry protection or if even more protective measures are implemented.

One additional type of protection that could be imposed is Certificates of Entitlement (CoEs). CoEs are licenses to register vehicles with quota allocations bid for by distributors on a monthly basis. These are present in Malaysia's neighbor country, Singapore. The quota system was first introduced in 1991[83]. In addition to providing the government with a very important source of revenue due to the high cost of CoEs, the quotas serve to restrict the volume of vehicles on the island-nation's limited road network[84]. The Malaysian government could then find a way to introduce some sort of CoE system for the national market and bring in the famous Singapore based car quota system. Quotas would then be higher for national cars and lower for non-national cars. The supply/demand effect would control the price of the CoEs raising the price of non-national cars to impossible levels for most people.

Under a really pessimistic view, it could also be possible that the government could totally close its market to any foreign company. This would shift the focal point to the extreme left.

[83] "Quotas restrict market size," *Motor Business Asia Pacific*, June 22, 2000

[84] "Quotas restrict market size," *Motor Business Asia Pacific*, June 22, 2000

Scenario 2 – "Shelter from the Flames"

"Malaysia's delay closes the largest passenger market in ASEAN and prevents completely regional integration, probably till 2008."

- Jerry Kania (President of Ford ASEAN)[85]

This type of comment is typical of many big players in the global automotive industry such as Ford that are looking for a bigger presence in Malaysia.

Under this scenario, the government is keeping the automotive industry "sheltered from the flames" of foreign competition. The government would seek a further extension of the final date. One alternative is that the government may look to start reductions from the current rates in 2005 and drop the level gradually say, about 5-10% for CKDs and 20-30% for CBUs a year until they reach AFTA levels. Thus, the industry would be liberalized by 2008 or 2010, not 2005.

Some other arguments would probably be made up for prolonging the full implementation of AFTA. According to this point of view, the government is not ready to sacrifice its national car industry because the companies would not be ready to compete directly with the "big boys" of the global automotive industry. Too much effort has been invested to lose the whole industry for AFTA.

However, instead of removing CBU and CKD tariffs, the government may choose to reduce other non-tariff barriers. A few things that the government could do before 2005 to reduce protectionism on the automotive industry other than completely removing tariffs are listed below.

- **Remove local content policies** – This would eliminate the requirement to buy a percentage of components from local vendors and provide assemblers with more flexibility.
- **Reduce tariffs to a small extent** - Even if the protectionism is not fully eliminated, there are opportunities improve the structure of the protectionism. One example could be that Malaysia could align its CBU and CKD tariff rates with the next highest rates of ASEAN. If this is done, there should be enough of a cushion for Malaysian manufacturers so that the industry does not get caught in a downward spiral.
- **Cease non-national car manufacturer discrimination** - In Malaysia, the protection is uneven among passenger car manufacturers. Assemblers of national cars receive preferential import duties on CKDs and partial

[85] "Automakers Urge Malaysia not to Delay AFTA," *Autoworld EMZine*, October 8, 2001

exemption from excise taxes. The government could reduce differences in tariffs between vehicle classes i.e. use the same tariff rates for passenger vehicles and commercial vehicles and treat non-national and national producers equally. This would mean eliminating exemptions and low duty imports to specific manufacturers, thus leveling out the tariff structure.

- **Remove mandatory deleted list** - This will not remove protection as the other options, but it will eliminate the shield of highly inefficient producers and restore true competition in the industry.
- **Eliminate APs** – The elimination of APs would allow for the import of a greater number of foreign automobiles into Malaysia, thus lowering protection.

It is important to mention that this scenario does not insinuate that all of these things will happen. Conversely, it means that any combination of the actions may be taken by the government.

Scenario 3 – "The Key is under the Mat"

"Yes, AFTA is important and we will respect the regulations, but …"

- Own elaboration

With the pressure to open up from ASEAN and many other sources, Malaysia may not be able to delay much longer. The government may have to put "the key under the mat" so foreign companies can let themselves in.

Under scenario 3, it is believed that the government will effectively remove its tariffs on CKD kits and CBU imports to between 0 and 20 percent by the end of 2005. However not all non-tariff barriers such as import ceiling on CBUs, local content policies, and mandatory deleted item list will be removed. Additionally, some other barriers may be added to replace the tariffs and keep some degree of protectionism. It is difficult to know whether the tariffs would be gradually reduced or all at once, but the implications of this are quite important. As stated under government, it does not seem like the government is going to begin bringing down tariffs on motor vehicles any time soon. This was made clear by the release of the 2002 budget.

The government has a wide range of elements that could be used to limit the change caused by the removal of import duties. A few suggestions follow.

Excise duty and sales tax could be used as a means to artificially raise the price of non-national vehicles. Both Proton and Perodua are currently enjoying rebates when it comes to excise duties. The level of tax could then be brought up higher

for non-national vehicles and the level of rebate more considerable for Proton and Perodua.

Higher road taxes could also be imposed on vehicles with a higher engine class than that of national passenger vehicles. The engine size of all national vehicles is very small with few vehicles exceeding an engine size of 1.6L. Even national commercial vehicles and 4x4s have a small engine class in Malaysia. Many foreign cars are in the luxury segment i.e. Mercedes, BMW, and Landrover and have engines that are much larger than the typical national motor vehicle. If the government were to impose very high road taxes for larger engines, people may think twice before buying a foreign car with a large engine.

Additionally, the government could eventually give rebate on the financing of a national car purchase and find a way to increase the percentage when a non-national car company is concerned. Financial rates are of crucial importance in Malaysia since the level of sales is closely related to that figure. If loans are available for national cars only, the majority of Malaysians will have to buy the national cars.

Scenario 4 – "The Promised Land"

"Regionalization is a train not to be missed, 2005 might be the last ride available on the schedule"

- Own elaboration

The fourth scenario would be a radical removal of the trade barriers with ASEAN countries by 2006 meaning that the tariff barriers range should be contained within a 0 to 5% range for CKD kits and 20% for CBU units. This scenario would also involve removing non-tariff barriers of entry such as APs, MDL, local content, road taxes, and excise duties.

Government officials insist that this is what will happen but this is questioned by most observers. When asked about the various backlashes of that scenario, i.e. second value of the cars, loss in import duty revenues, banking system, etc. officials from the government say that they are currently sending warnings to actors that could be exposed unfavorably to the full implementation of AFTA in 2005.

Most of the industry observers encountered believe that the solution lies in the removal of the trade barriers. This would translate into higher quality products at

competitive prices, something that would ultimately benefit consumers[86]. However, there is quite a difference in between what *should* be done and what *can* and *will* be done. A considerable amount of those very same sources remain skeptical about the willingness of the government to do so.

It is important to add that this scenario includes a range of possibilities that are a bit more extreme than in scenario 3. The possibilities for tariffs under this scenario range from a reduction to CEPT levels (free trade with ASEAN) to an extreme case where the borders are open to the entire world.

5.6 A Choice of Scenario

The aim of this section is to predict the situation of the focal point in the future, more specifically at the end of our time frame. A specific choice of scenario for the future shall then be chosen and described following that section.

We would like to recall, once again, that the time frame has been established to the beginning of 2006, date where important changes should be observed on the Malaysian automotive industry.

5.6.1 Government's View

We have seen through the government section previously presented in this chapter that a number of factors should be considered in predicting the eventual decision of the government. The crux at this point is to know how the government will manage the current situation and which views it will adopt in the future. We shall, once again, use Dicken's ideal type framework to supplement the following section with a certain structure. The framework will now be used to identify the future evolution of that ideology.

Malaysia and its automotive industry were defined earlier as a planed rational ideology. The aim of the exercise that will follow is to find out if the government will either increase or decrease its control on the industry. It could either favor a more "market rational ideology", i.e. relax the grip it has on the automotive industry or it could maintain or even accentuate the current situation, hence tending more toward the "plan rational ideology." The analysis of these contradictory forces follows.

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[86] Ngui, CYK, "Special Report, Afta and the Malaysian Auto Industry - Caution Ahead", *Malaysian Business Magazine*, October 1, 2000

Indications towards a Market Rational Ideology

Factors such as the ones that follow suggest that Malaysia would increasingly evolve towards openness and that its control over the automotive industries could be reduced.

We have seen that the population and the size of Malaysia make it a relatively small country compared to many others. Considering this fact, it is more difficult for the country to count on a "self reliance" policy and is therefore more or less constrained to open up to international trade. Nonetheless it is clearly shown that Malaysia is really successful at dealing with trades since international trade has been important in Malaysia for a long time. This is highlighted through the level of exports that represent more than 100% of the nation's GDP. Keeping good relations with the international scene is then of great importance for Malaysia. In the case where the government does not reduce its barriers, it might encounter some opposition from the WTO and from ASEAN which could be reflected on the performance of its trade and, eventually, on its overall economy.

However, those various international and regional organizations (WTO, APEC, and ASEAN) have received strong support from Malaysia so far. Thus, there are no reasons for the country to change its behavior.

Indications towards a Plan Rational Ideology

Several signs point to the likely fact that the government will maintain its strong grip on the automotive industry. In recent years, the Prime Minister has been critical toward a number of aspects of international nature. The Asian financial crisis seems to be the event that triggered this situation. Since then, the country has increased its control over certain economic issues, currency, and investment approval. Current events, such as the uncertainties related to the situation prevailing in the world economy and the accession of China in the WTO seem to show that the reluctance to open up could persist.

More related to the automotive industry itself, it seems to show that the government will try to maximize the benefits related to its current situation until 2005-2006. A clue at this level is this year's budget which was said to be an indication for the future of the auto industry. However, no specifications were contained in the budget relative to the reduction of any barriers related to the automotive industry. Changes were solely observed on the trade of motorcycles.

We also have to consider that a high level of protection maintained until 2005 would imply greater revenues from duties and taxes for the government.

Furthermore, the national companies (car and components) manufacturers will enjoy a longer time of protection and a guaranteed market until then, leaving the companies intact for a while. We have seen next that ASEAN countries were important for Malaysia's trade, but not to a point where it is crucial. Malaysia could then be able to risk a bad position in ASEAN in order to assure the protection of its automotive industry. Finally, the anticipated insurgence of China in the ASEAN picture might even provoke greater resistance on the Malaysian side.

The Choice

Evaluating the direction that the government will take according to the ideology factor is not a simple task. Nevertheless, a certain trend can be observed through the considerations cited above. We believe that the government will maintain the current barriers on the industry at least until 2006 but will most likely make some concessions in order to reduce eventual tensions that might arise with its trading partners.

Noteworthy to add is that, under those terms, we believe that any change at the political level (political party or Prime Minister) or at the social level could alter the view of the government as a whole.

5.6.2 The Appropriate Scenario

In the light of the arguments given in the previous section, we believe that the government will opt for a solution based on scenario 2 – "shelter from the flames." A partial liberalization would be witnessed but the industry would find itself shielded from non-national car companies at least until the beginning of 2006. The focal point will then be positioned towards the right part of scenario two. We predict that some changes will be made to the automotive industry since the focal point will shift from the "fortification" scenario to the next stage, "shelter from the flames." What follows will report the means of protection that should be kept and those that will most likely disappear from the current system.

What will stay

Our view is that the government will maintain its current import tariffs on the industry at least until 2006. That will be as valuable for countries from ASEAN as others countries. In other words, the ASEAN tariffs (also known as CEPT, common effective preferential tariffs) will remain the same as the general tariffs. Importers of CBU vehicles will then have to consider paying duties of at least 140% the value of the car if they want to access the market or continue to

assemble CKDs in Malaysia and pay a minimum of 42% in import duties. This will allow the government to maximize the income it gets from the various duties and will give additional time for Proton to preparing itself for a fully open market.

Considering that some measures would be dropped, as we shall see, the will of the government to keep the tariffs intact will increase, so not too much protection is eliminated at once.

What will go

The protection of the industry shall not remain as high as it is now. The various pressures stated earlier in the government section, i.e. by the ASEAN member countries and the WTO, will force the government to remove/relax some means of protection. In this way, as described in the "shelter from the flame" scenario, many of the barriers such as the local content policy, car manufacturer discrimination, the MDL, and the AP system will be subject to important changes as time progresses towards 2006.

First of all, there is evidence that the government may remove the requirement to use local content as early as January 2002. MITI obtained an extension from October 2000 to January 1st 2002[87] from the WTO Council for Trade in Goods and there is no evidence that the Malaysian government has made a fresh submission for an extension.

Additionally, Malaysia might drop, or at least relax to a great extent, discriminative measures such as the MDL and the AP system. The WTO is not going to let Malaysia continue violating TRIMS at this level, especially considering the fact that Malaysia has until 2004 to drop these "illegal practices." This is an indication that if TRIM violations are dropped, the government will want to keep the tariffs intact so not too much protection is eliminated at once.

Concerning the ASEAN countries, it appears that they may have to accept a slower liberalization. However, they might tolerate this decision from Malaysia for two reasons. First, enterprises from other ASEAN countries still have the opportunity to form AICO agreements with companies from Malaysia in order to avoid the current tariffs. For instance, we have seen that Thailand is the ASEAN country that wants barriers to drop the most; however Thailand is also the country that has the most AICO agreements with Malaysia in the auto sector. This whole

[87] "Change in AFTA Date?" *Autoworld EMZine*, September 28, 2001

situation suggests that there is not enough AICO agreements to cover the whole spectrum of trade but that it is still acts as an effective loophole around the tariffs. Therefore, Thailand may have to be prepared to wait a few more years.

Second, the enforcement mechanisms of ASEAN remain relatively weak since no disciplinary bodies are present within the association of states. The only option that the member states such as Thailand and Indonesia could take is then to raise the level of tariff for a certain category of goods originating from Malaysia. In our view, ASEAN member states could hardly adopt any more drastic means than those since we don't think that ASEAN could really afford to lose Malaysia as a member state, even considering the fact that only 20-30% of their trade is completed with ASEAN countries.

We could finally comment that Malaysia would not have so much to win by building on the frustration of its colleagues from ASEAN but it seems ready to do so in order to protect its national car industry.

What shall come next?

It is out of the scope of this research project to evaluate what will happen after the key date of 2005 since it would be over the time frame specified. However, we would like to complement this section with our views concerning what could eventually follow and by which time the government would most likely open its automotive industry totally.

According to various evidence and analyses presented throughout this thesis, we believe that tariffs will slowly be reduced from year to year starting in 2006. Instead of a sudden removal of the barriers, the tariffs would most likely be aligned to ASEAN's scheme by 2008 or 2010 as the focal point gradually moves towards the end goal of full liberalization.

The reason for this line of thinking is that both the 2002 budget and government officials suggest that no type of gradual tariff reduction will begin before 2005. A reduction of import tariffs from 300 to 0 - 5 percent all at once would be too much of a shock to the industry for the government to allow this. Government revenues (which are quite high from these import duties) would be lost with a sudden cut of tariffs, which would put pressure on the entire economy to replace these revenues.

The MAA also feels that a gradual reduction would be best for the industry. A senior MAA official stated that "there should be a transition period during which tariffs are gradually reduced until they reach the target level of no more than 5%

import duty."[88] Therefore, it is reasonable that a gradual reduction in the tariffs will begin at the end of 2005, lasting until the tariffs reach acceptable levels.

5.7 Effect on the Dimensions of the Industry

As shown on the AIF model, the various dimensions in our protected industry model will all have repercussions the future outcome of the industry. Two factors are mainly shaping the future outcome. First, the selected scenario shall be the main influence on the dimensions. Specific assumptions related to this scenario will be cited in the first part of that section. The external factors are also an important source of influence and shall be considered.

Each dimension will be reviewed in this section by discussing how they would most likely change according to our predictions.

5.7.1 Assumptions for "Shelter from the Flames"

Following our previous section, we now know that scenario 2 - "shelter from the flames" will most likely prevail by 2006. However, no explicit measures that the government might take to realize this scenario have yet been advanced. For the sake of simplicity it is necessary to make specific assumptions as to what will happen in 2005 so that the effects on the major actors in the industry can be assessed. The assumptions are as follows:

- Import tariffs will remain at current rates
- Local content policy will be dropped
- The APs system will remain but its application will be relaxed. The number of APs issued would be greater and might not be limited strictly to privileged persons.
- The MDL will be removed
- Excise duties, sales tax, and road tax will remain the same
- Discrimination against non-national car companies will be reduced slightly.

It is important to note that we are not suggesting that these events will occur exactly as listed since this would be difficult if not impossible to predict unless you are actually the Prime Minister himself.

[88] "Change in AFTA Date?" *Autoworld EMZine*, September 28, 2001

5.7.2 Core Product Manufacturers

It is obvious that the core product manufacturers will highly be concerned by the future of the automotive industry. The way the actors contained within this dimension currently operate will change considerably. These changes will nonetheless be of a different nature whether they are national car companies or non-national car companies. We shall then comment the effect on those two actors separately.

National Car Companies

It appears that the national companies (Proton and Perodua) have everything to win under our predictions, i.e. in a case where the barriers of entry are kept relatively high. The company will then be under a minimal level of competitive pressure, their sales level on the national market will remain high, and so should the profit margins. Along with the removal of the local content policy and of the MDL, the national companies will be able to buy more products from cheaper sources or sources of higher quality located outside of Malaysia. Another benefit related to the new situation is that the overall quality of the car will be improved for an equivalent price level or the price will be reduced for a equivalent level of quality. Finally, that situation will give time for the manufacturers to invest in marketing and R&D, look for a partner with whom they could develop their business, and eventually reach the highest end of the development, hence, being able to compete on a global level.

However, it does not mean that this is all for the best for the two national companies. The efforts required to make the necessary developments might have to be quite considerable if a global economic slowdown is meant to be long-lasting. High barriers might also favor an attitude of "laisser-faire" and the national companies might not feel the competitive pressures as much as if they were really present. Competitive pressures could work as strong incentives towards higher competitiveness and efficiency for the national companies. Their absence could then be perceived as a lack of motivation to go further and the national companies could eventually fail to develop a position competitive enough for the global market.

Furthermore, reduced discrimination against non-national auto companies might reduce the lead of the national companies over the foreign ones, especially at the price level. Fewer exemptions for national companies would imply a higher price for their vehicles, narrowing down the difference between national and foreign

vehicle prices. This might not have a direct effect on the market share, i.e. a reduction but it would nonetheless impede the companies in increasing it.

The crux is then to know if the companies will make good use of the time remaining for them. As far as our prediction is concerned, the outlook of Perodua seems rather promising for several reasons. First, rumors seem to point at the fact that the company already found a collaborator for the future (Daihatsu). The group might then be able to improve its competitive position as it learns from its new "big brother." Second, the company operates in a niche of the market that is not exploited to such an extent by the major players, i.e. the economical compact car segment. It is possible Perodua will use Malaysia as a hub for the ASEAN region for its niche of small, cheap vehicles. This may be an especially good strategy in SE Asia where physical and monetary constraints are high.

However, the future of Proton remains less certain. The company has made a clear progression in the last year. The Waja is probably the best illustration of that fact: an interesting design coupled with good mechanics. As if this was not enough, a number of new models (GXM, Proton Ultimate, and others) will follow. Proton has also targeted a 2004 roll out of replacement models for Tiara, Satria, and Wira.

Doubts are raised relative to the capacity of Proton to improve its price structure in such a short time. One way out would be to find a durable partner that could help Proton at this level. Right now, the company is counting on collaboration and a number of and technical agreements with Mitsubishi, Lotus, and Renault. Proton is certainly not in the same position as Perodua but should be able to remain to be main actor on the Malaysian market at least under our scenario time frame.

Proton lacks a niche in the auto market. Today, Proton products are positioned in direct competition with global auto giants. Proton will either have to find a niche or drastically improve efficiency and economies of scale if it wishes to be competitive. One must wonder if there is room for another player in the global auto industry. Therefore, Proton's future direction could lead to larger cars, sports cars, or even into Perodua's small cars segment.

Proton is rumored to be talking with Kia (owned by Hyundai) about a possible joint venture. Hyundai is offering technology at a low price and this is the key ingredient for a technical partner for Proton. Some analysts believe that a Proton

small car could be produced much less expensive than a Kancil, a Hyundai small car retails for lass that RM20,000[89].

If this project is given the green light, look for Oriental Holdings to be appointed to distribute the Proton-Hyundai small car. Oriental already distributes Hyundai cars in Malaysia and may even be included in the JV.

Proton's third technological partner would help them to produce a small Proton car using a Hyundai engine, and enjoying the same low, preferential import duties given to existing Proton models. Our scenario allows for this at least until 2006.

One last issue that must be looked at is Proton's brand image. Currently, Proton's brand image is quite poor. In the time frame of our chosen scenario, Proton will most likely try and change the way people feel about Proton.

Proton brand building may turn to work together with Lotus to create unique products. Establishing a brand identity based on the ride and handling strength of Lotus Engineering could be a good strategy for the future. Proton should ride on Lotus' engineering expertise with the tagline "Engineered to Exhilarate" to promote its name.

The goal for Proton should be that one day people will associate superior ride and handling with Proton, similar to how people associate reliability with Toyota, safety with Volvo, and prestige with Mercedes[90]. Proton must make buyers feel that they are establishing a long-term and pleasant relationship with the manufacturer.

Non-National Car Companies

Looking more closely at the effect of the scenario on the foreign car manufacturers, it seems that they might not be at the end of their miseries. Most of them will have to pursue paying an incredible amount of duties to be able to access the market; hence, the prices will be maintained at their current levels. Furthermore, this situation, i.e. high prices resulting in a small volume of sales, reduces the hopes in building bigger manufacturing facilities to achieve economies of scale.

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[89] Tan, C., August 6, 2001, pp. 18

[90] Mutalib, R., taken from Shan, S., "Positive Notes for Auto Industry" *Malaysian Enterprise Magazine*, August 2000, p. 17

The companies can however find little comfort in the removal of certain barriers such as the MDL and the local content policy. This will result in greater flexibility in choosing their suppliers, having a direct effect on either the price paid for the components, on the level of quality, or on both. Profitability of operations in Malaysia might nevertheless remain limited for the least until 2006, especially in a context of a slowing world economic situation.

Under a reduction of the discrimination against non-national companies, foreign companies might also be able to gain a tiny increase in market share. As previously stated, the price of national cars should slightly increase since a reduction of the exemptions will most likely provoke an increase in price. Under those circumstances, the foreign national companies could eventually foresee a possibility to increase their market share in the future.

This eventual outcome is, however not stopping a number of foreign car manufacturers to place great hopes in the future of the Malaysian automotive industry. Marketing activities are slowly increasing as the key date is getting closer. Investments are also rising in companies that are not ready to risk a share of the Malaysian market. Additionally, a number of global actors, e.g. Volvo, Ford, DOH, Oriental-Hyundai, Toyota, Daihatsu, have increased their participation in the national market in the last years. According to our predictions, their anticipations might be realistic as long as they believe that 2006 will solely be the "kick-off" year and that the market shall fully open only in 2008 onward.

We shall not go deep in each of the foreign car manufacturers present in Malaysia but some actors remain worth mentioning. The current non-national market leaders, Toyota, Nissan, and Ford, seem to be the players that are coping the best with the current "rules of the game" and shall therefore be able to pursue encouraging result until 2006. UMW Toyota enjoys a good product image in Malaysia and its franchise is among the most stable in the country. Nissan (Tan Chong Motors) should also yield good results even considering the current family feud. The brand remains popular in Malaysia and cheap components might help the company to remain among the "top sellers" of non-national cars. Finally, Ford's recent success in Malaysia could continue in the next years. Strong from their success in the commercial vehicle segment the company could keep its place among the leading non-national car manufacturers in Malaysia.

5.7.3 Related Industries

As we have done earlier in this chapter, we shall mostly analyze how the components manufacturers will change along with our predictions since these actors represent the main ones within the related industry dimension. However, a small section will be devoted to distributors of CBU cars since their situation will be subject to change as well.

One might have already noticed that the component manufacturers will certainly be the most affected group of companies according to our assumptions since the measures that are subject to modifications are mainly related to them. Once again, a distinction shall be made between the national and the non-national companies.

National Components Manufacturers

According to our crystal ball, the situation of national components manufacturers will change to quite an extent. The removal of the local content policy and of the MDL will, without any doubt, increase the competitive pressure exerted on them, especially those operating in the OEM segment. The reduction of auto components tariffs will also add to this pressure. This will incite component manufacturers to develop at a faster pace and, thus, being able to eventually make their way. Under the new circumstances, the companies will realize that further investments must be made in research in order to increase their efficiency. Just like in the case of national car manufacturers, being able to find a business partner could also be another possible way to increase the efficiency of the operations. This whole situation could allow the components manufacturers to better follow the technological trends of the global markets such as modular assembly and design.

Another outcome could however be that the components manufacturers crack under the competitive pressure from foreign manufacturers. Products with higher quality could originate from the west while cheaper products originate from China and other Asian countries. Malaysia would therefore find itself in the middle of those extremes with products of a second level of quality that would be relatively highly priced. Under those circumstances, the repair market would probably be the only possible alternative for the companies involved. This whole situation would raise concerns on whether the government would let this happen or would introduce policies that assure the protection of an industry that will have to face the global market sooner or later.

Many national component companies may turn into gateway companies for foreign companies. Foreign companies are likely looking to make partnerships and joint ventures with national ones. The advantage of this for the national companies will be that a foreign company may either transfer new production processes and technology or increase their economies of scale. The foreign company will receive political connections, obtain employees of the home company culture, and gain access to a new emerging market.

The bottom line is that increasing competitive pressures will be felt. That situation will either incite the national components manufacturers to develop themselves further or arouse their disappearance.

Non-National Components Manufacturers

In a situation where the local content policy and the MDL would be revoked, more space would be created for those international players in Malaysia, as we anticipate it.

Manufacturers operating in the highest end will most likely seek partners on the national market in order to develop their positions. We do not think that they will be able to enter the market on their own due to a lack of relations. The presence of this type of foreign company should increase on the national market under partnership form, especially if they are working with parts familiar to local components manufacturers such as shock absorbers and leaf springs. The government will surely encourage such a practice since it is an important source of knowledge for the national companies and thus be a way for them to upgrade their level of technology. The government interest will even be greater if such companies encourage exports.

Presence of lower-end foreign component manufacturers should also increase as the barriers are removed. However, this will not be done in the same way. No particular relations will be needed since those companies focus on the price only. Their concern is to produce at the lowest price possible and "dump" the production on the market. The presence of those companies will then be felt via an increase in competitive pressure. As time progresses, companies originating from Thailand and especially from China will most likely represent the bulk of those companies due to their very low cost of labor.

CBU Distributors

The distributors of CBUs should also feel the changes that will most likely hit the Malaysian industry. The number of CBUs distributed could slightly increase as APs are more widely available. It might then be possible for them to get more cars for sale. This could also reduce the price of the cars since it will be possible to spread the fixed cost over a larger amount of units. The distributors should not expect a situation where the companies for whom they are distributing the product invest heavily in production facilities in Malaysia, at least not under our scope of prediction.

5.7.4 Factor Conditions

It is relatively hard to judge the impact of the future on the conditions of the factors that support the automotive industry in Malaysia due to the multiple actors and considerations involved in this dimension. Nonetheless, it remains clear that both the bank system and the labor market will be highly influenced by the future outcomes of the industry from 2006 and onward. We shall comment on those effects very briefly.

The Bank System

As far as our predictions are concerned, the government will opt for a gradual reduction of the barriers even if it affirmed the opposite when officials were interviewed on the matter. Hopefully, the banks shall then not be affected to such a great extent by the changes. The value of the collateral should remain at acceptable levels since the banks do not have to worry about a drastic fall in car value from one day to another. However, a certain level of risk remains present.

The Labor Market

The changes at this level will strongly be correlated to the evolution of the national companies (core product manufacturers and components manufacturers). The "quality" of the labor should therefore (or should we say hopefully) change as the manufacturers are trying to follow the pace of technology. The level of training of the automotive workforce is likely to increase as years go by. As we have seen, efforts are currently made to make this possible.

Quantity-wise, it is highly possible that job losses will follow in some component manufacturer plants, and maybe a few layoffs in Perodua and Proton as a means of cost reduction. However, no drastic changes are anticipated before 2006 and the current employment structure should more or less follow its normal evolution.

5.7.5 Customers

Car buyers will continue to pay excessively high prices for new vehicles. Cars will remain a strong part of a Malaysian's budget at least until 2006. This situation might create great discontent since this money could always be invested elsewhere in order to increase their quality of life. Buyers with a strong purchasing power will nevertheless enjoy a greater variety. With APs that should be more accessible, it will be easier for them to get a hold on foreign car under CBU form.

In a certain way, car owners should not be in too much of a hurry to see the barriers falling, especially if they wish that it could be done suddenly. In other words, they should wish for a gradual reduction of the barriers. In the situation where car prices drop significantly, they will see the value of their car melt similarly to ice cream under the Malaysian sun, making it harder for them to replace their old car since they get less value out of it. Replacement will then be delayed in order to gather enough financial resources to cover the lost in value of the car. The main effect will then be shown through decreasing motor vehicle sales.

A sudden price reduction should not be expected by the customers for two further reasons. First, a number of "expensive cars," i.e. cars for which dealers will have paid a high duty fee, will not disappear from one day to another. Thus, the dealerships will have to sell all of their back stocks before lowering prices to new levels. The only alternative to this is to assume a large loss and sell at a discounted price anyway. Second, it is likely that the government will not reduce its level of barriers abruptly considering the situation it would leave the economy with, especially the banks. Such a change in the "rules of the game" could provoke a shock of a considerable extent and some actors might not be able to fully handle this change.

Whatever happens, the customers will have to bare a final hit at some point, most likely through a reduction of the value of their car, in order to finally be able to enjoy cars with reasonable price levels. However, it appears that this will still not happen for some time.

5.7.6 Clusters and Networks

The connections between the various dimensions will also undergo some changes in the future. These changes are described below.

Clusters

As Porter (1990) states, clusters serve as facilitators of information flow and sources of goal convergence. As far as the clusters are concerned, the removal of the barriers should not influence this aspect to such a great extent since business still has to be conducted in the most efficient way. Components manufacturer will still have to be located close to the major car assemblers/producers and next to facilities that will facilitate the way they conduct business such as highway, port and airport. The automotive clusters located in Shah Alam and Rawang should not undergo any drastic changes in the next years.

However, two changes could occur. First, some components manufacturers that are located within certain distances from the main clusters and that rely mostly on their good relationships with the manufacturers might consider getting closer to the manufacturers as the importance of efficiency increase over legitimacy as we shall see in the next section. Second, in the case where Proton truly comes out of the situation successfully, the Proton City project could eventually see the day. These two possible outcomes could ultimately strengthen the automotive clusters of Malaysia.

Networks

Our selected scenario will put the test on both political and resource exchange relationships that exist within the automotive industry.

As the Malaysian auto component suppliers become less protected, those with the most solid relationships will have a large advantage over the others. Keeping in mind that the goal of a relationship is to achieve either efficiency, legitimacy or both, weaker relationships may be abandoned for new ones in order to improve efficiency. Some relationships will survive since a high degree of legitimacy has already been attained. Practically, an auto manufacturer will need a strong relationship (strong legitimacy) to stay with a manufacturer that is given an opportunity to import a component from outside of the country at a discounted cost.

The nature of a government relationship with an actor depends on the status of the actor. The selected scenario may cause the status of many actors that are

involved in the auto industry to change. The government may begin to cooperate with foreign parties that are looking to supply automotive related products to Malaysia from outside. This cooperation will be in hope of creating a more dynamic industry by allowing auto manufacturers access to cheaper and better quality components. The relationships between the government and weaker suppliers might as well become fragile and only the strong will survive. The industry would start to function more effectively since more importance will be accorded to the product, its quality, its price, etc. and not just who sells it.

Shareholding and ownership relationships will also change. The component suppliers that are partly or fully owned by a large group such as DRB-HICOM or major auto manufacturer such as Proton will be more secure in the future than those that are not since they are part of the company. It is likely that the shareholding company (or persons) will help to develop the components supplier to a point where they become competitive with their foreign counterparts.

Looking at the big picture, the auto industry as a whole will most likely become less tightly knit than it is today. Look to see more foreign joint ventures with Malaysian companies and more foreign takeovers in the auto components segment in Malaysia. The structure of the relationships will change and more foreign participation will lead to the conversion of national centric relationships to international centric relationships.

In summary, political relationships will remain important but the structure of shareholding and resource exchange relationships will begin to change as the importance of efficiency increase with the increase in new foreign entrants and imports. However, one should not get this wrong; relationships (achieving legitimacy) will continue to be a crucial aspect.

6 CONCLUSIONS

Our conclusions shall be presented in this chapter. In order to do so, we will briefly review the empirical findings of this research. A short recall of the theoretical findings should be done next. As a supplement, we will also include a section where we give recommendations to foreign company that would like to operate within the automotive industry. Finally, we will present areas of our thesis that could be further investigated.

6.1 Problem Solution

The Malaysian automotive market represents one of the most interesting in Asia. As a matter of fact, it constitutes the biggest automotive market within ASEAN. It is not surprising that the Malaysian automotive industry is a major area of interest for a number of foreign players involved in it. However, the future outcome of the industry remains blurred as it is yet uncertain if it will soon be opened to foreign actors or if it will remain closed to protect the national companies.

Predictions must be made to have an idea of the future outcome. However, predicting the future has never been an easy task. The Malaysian automotive industry makes no exception to the rule since a great amount of factors are involved and a number of forces ultimately influence them. These considerations are therefore making the exercise difficult and demanding. Nevertheless, indications, hints, and clues can always be collected from the current situation to paint an appropriate picture of the future. This is what has been completed through this research in order to respond to our main research problem: "Taking into consideration the dilemma in 2005, what is the most-likely scenario for the future and what will be its effects on the key players in the Malaysian automotive industry?" We have investigated the problem further from the point of view of three different sub-problems. First, the current state of the Malaysian automotive industry was assessed and evaluated. Events and factors that could influence the future outcome of the industry were subsequently looked upon. Finally, we established viable scenarios for the future. The aim of these sub divisions was to identify elements that could ultimately provide us with a better insight on the main problem.

6.1.1 The current situation

While investigating the current situation of the Malaysian automotive industry, we have confirmed the fact that the government has a strong grip on the way the economy is managed. A number of policies have been formulated to secure the development of the state and to protect it against threats that may arise from the external environment. Over the years, the auto industry has thrived under the protection and support of government policies through the use of higher tariff rates on imported vehicles and preferential duties accorded to national cars.

However, the policies implemented by the government have also led to inefficiencies in the industry due to a lack of competition under a protectionist regime. The technological development level of the national car companies remains relatively low compared to that of global players. This situation is reflected through the price level of the national cars, which is considerably higher than those of other makes. Meanwhile, we discovered that foreign car manufacturers have a negligible participation in Malaysia with a very limited product range and small assembly facilities. They are waiting for the day when the barriers will be reduced, allowing investments in more serious projects. Their products are limited to a number of wealthy Malaysians who can afford using a foreign make subject to high duties.

We also found that the situation of the related industries is extremely comparable to the one of the car manufacturers. National components manufacturers will have to make strong efforts to upgrade their technology level if they want to be able to face greater competition. Right now, they focus mostly on a range of products that is less technology intensive, a segment that is highly desired by producers originating from countries where the cost of labor is relatively cheaper. Technology intensive products are mostly produced by companies originating from other countries with a high level of expertise in the domain such as Germany, Japan, and the US. However, as we have discovered, most of the foreign components manufacturers are underrepresented in Malaysia due to the high level of barriers. The same holds for the CBU distributors. This is also a result of the excessive import duties imposed on CBU imports.

The current situation of certain factors of the Malaysian economy should be mentioned among our findings. First, we found that the bank system invested considerably in the automotive industry. This is through indirectly allowing customers to give their cars as collateral. Secondly, the automotive industry employs around 35,500 persons in Malaysia. Such a great number suggests that the

labor market is highly affected by the state of the automotive industry in Malaysia and its future. However, the quality of the labor should be improved if the industry wishes to compete on the world markets.

Figure 31 – Critical Points Related to the Current Situation

Aspects

Government

- ✓ Very strong influence on the industry
- ✓ Imposed high barriers (tariffs and non-tariffs)

Car Manufacturers

National

- ✓ Low technology level
- ✓ Less effective than global players

Non-National

- ✓ Under represented
- ✓ High prices due to trade barriers
- ✓ Small assembly plants

Related Industries

National

- ✓ Low technology level
- ✓ Less effective than global players

Non-National

- ✓ Under represented
- ✓ Cheap labor intensive products
- ✓ Technology intensive products

Factor Conditions

Banks

- ✓ Highly invested in the automotive industry

Labor market

- ✓ 35,500 jobs related to the automotive market
- ✓ Relatively poor quality of the labor

Customers

- ✓ Are at a disadvantage because of the current system: subject to high prices, poor quality, and poor availability.

Connections

- ✓ Presence of clusters that increase the effectiveness of the industry
- ✓ Relationships are mostly between specific persons
- ✓ Importance of legitimacy in relationships

The customers are also dealing with the automotive industry to a great extent. It is clear that this group is the biggest loser of all since they are the ones that have shouldered most of the problems related to the current situation (high prices, low quality, low availability).

Finally, we also found that the connections contained within the industry had significant implications in it. Most of the players involved in the Malaysian automotive industry are concentrated into clusters that make the industry work

more effectively. Furthermore, the relationships within the industry appear very tightly knit as the same persons can be encountered at various levels. At this point, we also discovered the strong importance of legitimacy in the various relationships within the industry.

The figure 31 presented on the previous page illustrates the most critical points for each of the aspects described above.

6.1.2 Indications of Future

It must be recalled that the effective time period for which we base our predictions on is for 4 years since we would like to know how the industry will change up to 2006.

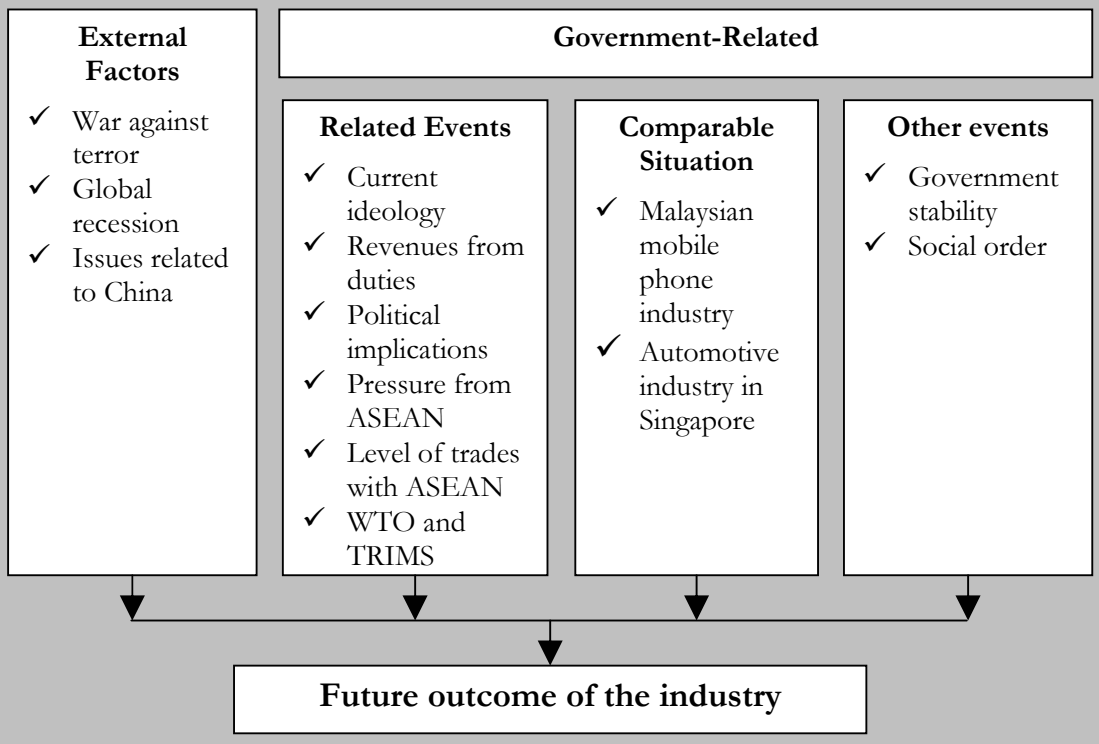
We found several factors that could influence the future outcome of the Malaysian automotive industry through our research. These factors were divided in two groups.

The first group consists of external actors. We realized that the war against terror, the threat of a global recession, and matters related to China are all issues that can ultimately influence Malaysia and its automotive industry.

At a second level, and most importantly, it is clear that the government will highly influence the outcome of the industry. Factors included under that group have been divided into three sub-groups in our analysis. A set of events related to the automotive industry was first pinpointed. This set included issues such as: the revenues raised from duties, the political implications of national car manufacturers, the pressure exerted by the ASEAN member countries, importance of ASEAN trade for Malaysia, and the WTO and TRIMS. A second set consisted of previous comparable situations. We have identified two situations at that level: the mobile phone industry in Malaysia and the automotive industry in Singapore. The third set of considerations that we recognized as having an influence on the future of the automotive industry is other factors. The stability of the government and the social order have been identified in this set.

We believe that the events presented above will constitute the main influence that will shape the Malaysian automotive industry for 2006. However, we have specified in our research that the events belonging in the last set were of great complexity and should be further analyzed. The critical points related to this section are presented in figure 32 on the following page.

Figure 32 – Indications of the Malaysian Automotive Industry's Future



6.1.3 Scenario Development

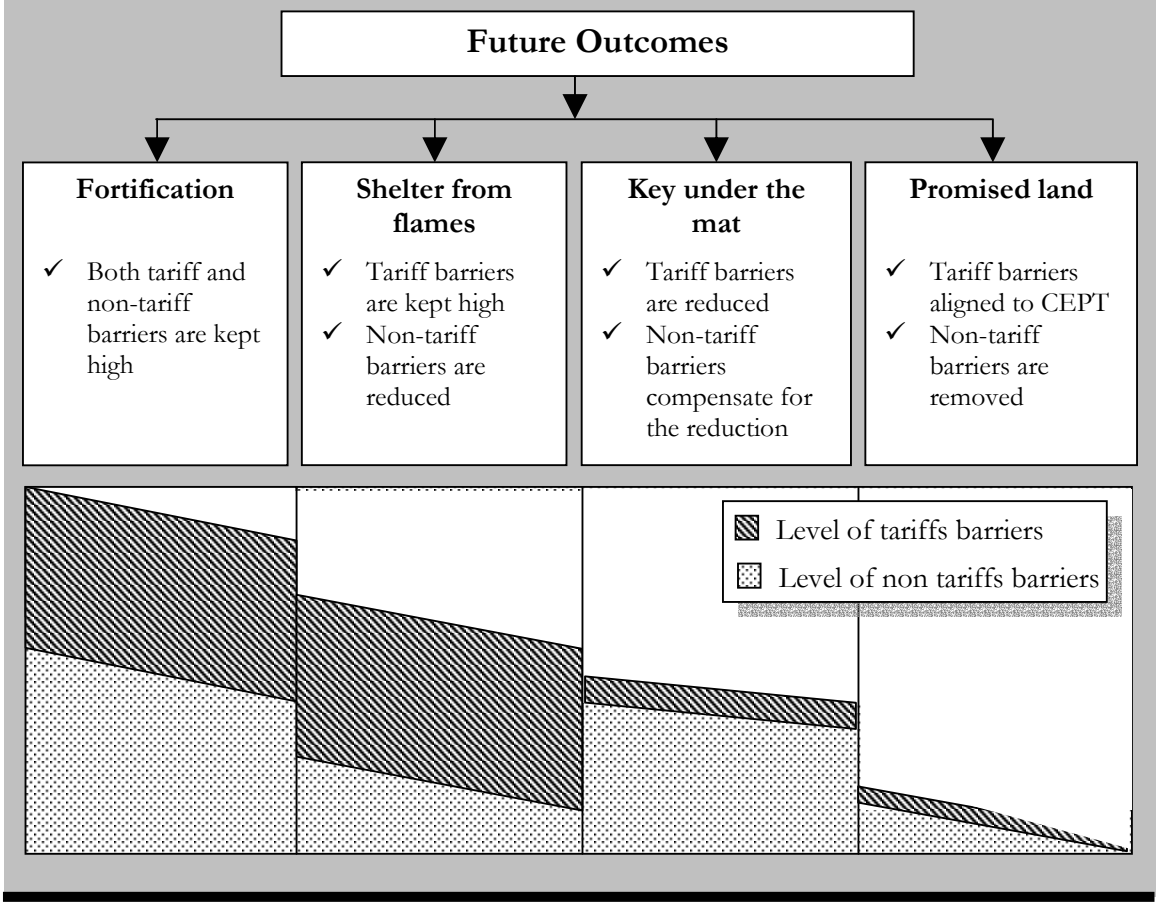
In the light of our research, we have built four possible scenarios related to the future outcome of the industry, i.e. 2006. Scenario one, "Fortification", stated that the government would still leave a small share of its industry to foreign actors or could even close it totally to them. Barriers would therefore be extremely high in that situation. The "Fortification" scenario, under its "pure" form is one of the extreme choices that the government could take. Right now, the government belongs to this "block" (as we define it) but not under its purest form meaning that further protection means could be taken.

In scenario number two, "Shelter from the flames," we presented a few moderate measures that the government could take to partially open up its market to foreign actors. Import tariffs would more or less be kept high in this scenario but other means of industry protection, i.e. the local content policy, the mandatory deleted item list, the approval permit system, and the manufacturers discrimination would slowly disappear or would at least be relaxed to a certain extent.

Under scenario three, "The key is under the mat," we estimated that the government would give further relief to the foreign companies by slashing import

tariffs to the common effective preferential tariff (CEPT), i.e. the tariff level of ASEAN and not the general tariff lines valid for every other country such as Germany and Canada. However, counter measures would be taken to cushion the reduction. Excise duty, sales tax, road tax, and financing rate could all be measures used to counter-balance the reduction of the import tariffs.

Figure 33 – Possible Scenarios of the Future



Finally, we have built a fourth scenario, "The promised land." This scenario judges that the government could always totally respect its engagements and ultimately align its tariffs to the CEPT scheme by 2006. No other means would be taken to counter-balance the reduction under that scenario and all non-tariff barriers would be removed. The scenario's "purest" form could be described as a total removal of all barriers, i.e. tariffs of 0%, following 2006 but it as to be clear that this remains an extreme. A snapshot of each scenario is provided in figure 33 above. We have attempted to illustrate the level of tariff and non tariff barriers for each scenario in this figure. The reasons the levels are presented with slopes is that

the width of each block (scenario) represents a range of actions that could be taken by the government with the left side implicating more protectionism than the right side, hence a higher level of barriers.

6.1.4 The Future of the Industry

The first step of our prediction was to anticipate the government view and to predict which scenario would prevail in 2006. According to the various hints we found and reported in the "indications of the future" section, we believe that the government will maintain the current barriers on the industry at least until 2006 but will make small changes to its non-tariff barriers. The government will then timidly move towards greater openness and slowly reduce the grip it has on the automotive industry. The scenario that correspond the most to this outcome is "The shelter from the flames" scenario (scenario number two). At this level, a number of hypotheses were formulated in order to be more specific relatively to the measures that the government would take under that scenario. We expect that those market opening measures will have far-reaching implications on the various dimensions of the industry.

We believe that the national car producers will be at an advantage on the short term. The companies will be able to sustain high market share, high profits while being able to access cheaper sources of components, components of better quality or even both. The golden years of the national producers should last at least until 2006, which gives them time to invest in productivity, research, brand image, and look for find a partner. Nevertheless, the companies still will not be motivated by competitive pressure for an additional five years, even in a case where discrimination in between national and non-national companies would be lowered. We therefore think that this could impede the national stars to develop themselves enough for a global market. On the other hand, we estimate that the foreign companies will not have it as easy as their national counterparts will in the next five years. Their models will still be associated with high prices and production should remain low for the next years. However, we think that they will also be able to enjoy little relief as well since they will have greater flexibility in choosing their sources of supply for components and they should be subject to less national/foreign company discrimination in the future.

We are convinced that the components manufacturers will be mostly affected by the future outcome. The national companies, under strong competitive pressure, will have to quickly find ways to upgrade their technology levels to be able to face the global market. This will either be done via partnerships with foreign

companies or via an increase in the level of investments in R&D. Some companies will also be constrained to leave the OEM market for the repair market or, even worse, might be constrained to leave the market altogether. Hence, we believe that foreign companies will be able to get a hold of a number of opportunities. Manufacturers of technology intensive components will be able to team up with national partners to further develop the market while manufacturers of low price components will be able to be more present in some other product segments. CBU distributors will also be able to count on a higher activity level due to the loosening up of the AP system, ultimately leading to an increase in profitability.

We also expect changes in the factor conditions situation. However, they will have far less reaching implications than the ones of the manufacturers. The bank system will have to bear a certain level of risk but, overall, it should not worry too much about the situation in the future, as it might not change to such an extent. The level of quality of the labor market will increase but not without harm as the number of employees could eventually decrease by 2006.

Among all actors involved, the state of the customers will undeniably be the ones that will change the least. They will remain the main loser of the industry under the next years as they shall continue to pay an incredible amount of money in order to acquire a vehicle. Several factors make us believe that this situation will not change at a fast pace due to the implications it would have on the industry. However, one certainty remains: customers will have to bare a final hit at some point in order to finally enjoy cars at a reasonable price level.

We think that a last set of changes should influence the conditions of the connections within the automotive industry in Malaysia. The current status of the clusters will not change to such an extent but some manufacturers might desire to get closer to "where the action is." Such a consideration makes us believe that the project of Proton City could eventually be foreseeable in the future. Relationships should also evolve under our anticipations. The status of the actors and their persons they know might become relatively less important in the future. Relationships with the government, with other companies, and even the ownership relationships should then slowly move towards efficiency. The overall result being that the industry will not be as tightly knit in 2006 as it is right now. Nevertheless, we think that relationships will still be of importance in 2006.

Critical points related to the future situation of the industry are presented in figure 34, on the next page. As one realizes, the scenario acts as a prism on the current

state of the industry. Under those forces, some dimensions are subject to change whereas others may remain the same, or almost.

Figure 34 - Critical Points Related to the Future Situation

Aspects

Government

- ✓ Maintain strong influence on the industry
- ✓ Timid move towards market liberalization
- ✓ Loosen up slightly its grip on the industry

Car Manufacturers

National

- ✓ Sustain high market %
- ✓ Access to cheaper source of components
- ✓ Time to prepare themselves to a global market
- ✓ Lack of competitive pressures

Non-National

- ✓ High prices due to persisting trade barriers
- ✓ Small assembly plants
- ✓ Access to cheaper source of components
- ✓ Less discrimination

Related Industries

National

- ✓ Find ways to increase technology level
  - more R&D
  - partnership
- ✓ Move to Repair market
- ✓ Some will disappear

Non-National

- ✓ Technology intensive: partnerships
- ✓ Low price products: increase presence in some segment

CBU distributors

- ✓ Higher activity level

Factors Condition

Banks

- ✓ Some risk but mostly unchanged

Labor market

- ✓ Improvement of the labor quality
- ✓ Some losses quantity wise

Customers

- ✓ Situation more or less unchanged
- ✓ Will have to persist in tolerating high price, poor quality and poor availability
- ✓ Hints that prices will not be reduced suddenly

Connections

- ✓ More concentration in the present clusters
- ✓ Proton City might be achievable
- ✓ Less importance of the status of a person in relationships
- ✓ Shift towards efficiency in relations with government and in between companies
- ✓ Legitimacy remains to be important

** Source – own elaboration*

6.2 Theoretical Findings

Through the course of our research, we felt that it was appropriate to develop our own models in order to present and analyze the data gathered in a way that we judged to be suitable. These theoretical findings constitute the scientific contribution of this research. We will briefly recall those two models in this section. No description will be provided here since they have already been explained extensively in our thesis.

The first model we have developed, the protected industry model (see section 3.8, p. 43), should be used to describe an industry that is subject to a certain level of barriers for foreign entrants. We are aware that a number of models are available for evaluating the situation that is prevailing in a given business environment. However, these models neglect the importance of trade barriers and do not apply specifically to a protected industry like our protected industry model. This is especially important when the study of the business environment should be done for an organization that is subject to those trade barriers.

The "Anticipating an Industry's Future" (AIF) model (see chapter 5, p.113) constitutes our second model. The model is a natural extension of the protected industry model. Nevertheless, it is still possible to use the model distinctively from the protected industry model. The objective of the AIF model corresponds very much to its title: to predict the future outcome of an industry and determine the effect it will have on the various dimensions of the industry. We felt that such a model had to be constructed since models about predicting the future and establishing scenarios were either too complex for our purposes and/or centered too much on a company's perspective and not on an industry perspective.

6.3 Recommendations

Although it is not part of our problem, we have decided to supplement our conclusion with a set of recommendations and points that should be kept in mind for a foreign automotive components company interested in entering the Malaysian automotive industry. Issues related to the current and future situation of the industry are then of crucial importance for this company.

ThyssenKrupp will act as an exemplar company for the purposes of these recommendations. The group has been introduced in the first chapter of this research. We would like to specify at this point that the internal resources and capabilities of TK have not been investigated here; the focus of our research was kept on the external environment. Consequently, the recommendations could also

be applicable to other foreign auto components manufacturers with no or little base in Malaysia. As well, we will take into account TK's success at producing technology intensive, steel-based components such as shock absorbers, leaf springs, and crankshafts.

6.3.1 Method of Entry

A foreign company must choose the way it will get its products to the Malaysian auto industry. The protected industry model displays a position of a foreign company relative to the industry no matter what entry mode they use. There are three choices: 1) Remain in the outer region of our protected industry model and export products to Malaysia. 2) Move to the intermediate region and set up production in another ASEAN country and export to Malaysia. 3) Manufacture inside of Malaysia. Naturally, this decision depends on the time frame over which the company wishes to invest, the nature of the product, and also on the internal situation of the company.

Staying in the Outer Region

It is possible to remain in the outer region of our protected industry model and export to Malaysia. However, attempting to enter Malaysia from the outer region is not recommended. The barriers for outside region companies such as TK are very high and will remain high for years to come. It is important to add here that when the government says that tariff barriers will be lifted, it is referring to those tariffs affecting trade with ASEAN countries, not with the entire world.

Inner Region vs. Intermediate Region

Since we predict that the future for foreign automotive component suppliers is much more favorable than foreign auto manufacturers, setting up local manufacturing and exporting products to Malaysia from neighboring ASEAN countries would be a feasible mode of entry. Tariffs for foreign automotive manufacturers from the region are not that high and many discriminatory measures by the government will likely be lifted in the near future.

If the foreign company produces components that are low tech and easily shipped, importing these products into Malaysia from another ASEAN country such as Thailand or Indonesia may be the best choice. Many other ASEAN countries have a lower cost of labor than Malaysia and falling barriers should soon provide easier access to the Malaysian market. However, a production facility must be located inside of ASEAN to take advantage of AFTA and its CEPT scheme.

Since TK produces high tech products, this may not be an appropriate choice in their case.

If the foreign company produces parts for which the Malaysian technology is undeveloped, and furthermore that could eventually be used as exports, local production may be the best choice. TK seems to fit in this category. Incentives from the government plus export possibilities resulting from falling barriers are advantages to this option. A joint venture (outlined in the following section) may be a good alternative. Auto components are not like motor vehicles and it is possible to supply all of the auto assemblers in Malaysia. An internal analysis of the specific company must be completed and a survey must be done to determine the presence of the specific product in the Malaysia market in order to decide on which method is best.

JV with Local Suppliers

We feel that the most appropriate method of entering the inner region of our protected industry model in the auto components sector is through a joint venture with a Malaysian company. There are several reasons for this. First, while doing research in Malaysia, we have come to realize that political relationships are important. Entering in affiliation with a politically made company will greatly ease the transition into Malaysian operations. Malaysian companies are generally more politically connected then foreign ones. The company will also most likely be part of a certain network that could ease the access to the inner region. Proton's tier one vendor program, commented next, is a good illustration of this. Second, the local company will already have important market intelligence and be perfectly suited to the Malaysian culture. Finally, we outlined throughout our thesis that the level of technology development of the national components manufacturers is currently lagging behind most of the global actors. The national companies will therefore be highly motivated to cooperate with a company that could assist them at this level.

An example of a company to join forces with is UMW Toyota Motors. Our analysis of the industry has also shown us that UMW Toyota is currently, and will likely remain to be, one of the most successful foreign auto manufacturers present in Malaysia. UMW Toyota has excellent political connections and already has its own leaf spring and shock absorber subsidiaries. As well UMW has a strong connection with Perodua with a 38% ownership stake. It may be possible to make a partnership with Kayaba Malaysia Sdn Bhd which is 52.1% owned by UMW

Toyota Motors. TK may also be able to secure valuable links with Japan through UMW Toyota.

Other companies that could be of interest are APM Automotive Holdings as well as the DRB-HICOM group. APM is a leading producer of shock absorbers and leaf springs in Malaysia and has an international presence as well. Tan Chong Motors has a significant stake in APM with the Tan family controlling 22.6% through Tan Chong Consolidated and another 20% through Parasand Limited. The DRB-HICOM group also has a huge presence in the auto components sector. Linking to DRB-HICOM would provide access to customers such as Proton, Mitsubishi, Isuzu, Honda, and possibly Hyundai.

6.3.2 The Importance of Political Relations

It is important to keep political relations in mind when entering Malaysia. As we were progressing through our investigation, we realized that the government was more omniscient than we initially believed. Once this investigation completed, we cannot stress enough the importance of politics in the industry. This is where the relationships outlined in our protected industry model fit in. It is important for a foreign company to find a way to move into the inner region if they are to achieve legitimacy through relationships. A political relationship should then be among the first type of network that a company should strive to acquire. This can be done through a joint venture with a Malaysian company that is politically connected, which is dwelled upon in the following section. A political connection allows a company to past many barriers.

6.3.3 The Importance of Proton and its Suppliers

As shown throughout this thesis, Proton composes up a very large portion of the automotive industry. To be a successful auto components supplier in Malaysia, it is important that Proton is one of the main customers. Proton has a list of 18 tier one vendors that are Proton's main suppliers of automotive components. A joint venture with one of these suppliers would be the best way to gain access to the significant market leader, Proton.

An interesting example of a Proton tier one supplier is Sapura Motors. Proton is the main customer of Sapura consisting of approximately 70% of sales. As well, their OEM springs are sold to Volvo, Ford, Mercedes, Mazda, and exported to Thailand. Sapura Motors has over 80% of the Malaysian market for coil springs and stabilizer bars.

6.3.4 Get a Malay Involved at a Senior Level

It is a good idea to have Malay persons involved at senior levels in Malaysia. In many instances, the NDP even requires it. Many customers for auto components such as Proton and Perodua favor companies with certain levels of Malay presence, and especially those with Malay chairpersons. It is common in Malaysia to have a high level Malay as chairperson of the company that interacts with the public and the government.

6.3.5 Take Advantage of Government Incentives

The Malaysian government supports entrants in some areas. The government is encouraging the entrance of manufacturers of high-tech products and products suitable for export. TK products qualify in both areas. The major incentives for companies investing in the manufacturing sector are the Pioneer Status and Investment Tax Allowance (ITA). These programs are outlined in the empirical data chapter under the "investment in the Malaysian auto industry" section 4.4.4.

Many potential investors are unaware of these programs, therefore we recommend to contact MIDA and ABDC (Auto Business Development Council) for specific details. More information can also be found in MITI Publication - *Malaysia – Investment in the Manufacturing Sector – Policies, Incentives, and Facilities*, 7th Edition, February 2001.

6.3.6 When to Enter

For automotive components manufacturers, we feel that the appropriate time to enter the industry is now. One reason is that the component supplier will be able to bypass current auto component tariffs and have access to the largest auto industry in ASEAN. With restrictions such as the local content policy and the MDL disappearing in Malaysia and the possibility of a more competitive automotive manufacturer environment, it may be a good idea to get a presence in Malaysia as soon as possible. Larger pioneer status bonuses are also given to the first suppliers of certain products.

First mover advantage should additionally be kept in mind. Being among the first companies present in Malaysia will adhere to certain advantages. First, the foreign company will have the first choice to which company they feel will make a good JV. The better established a foreign company is and the more political and operational linkages achieved, the better the chances of successful operations in Malaysia. Secondly, the earlier that a company gets in contact with the major auto manufacturers, the better. This is especially important for the development of new

models. Many manufacturers are currently in a race to develop new models for 2006 and component manufacturers will have to get their bids in soon. However, for some models that will be released over the next few years, it is already too late.

6.3.7 Location

This recommendation may seem to be an obvious one but it is still worth mentioning. When entering Malaysia, it is important for a components manufacturer to have operations nearby the major auto manufacturers. The most popular regions are Shah Alam and Perak. Additionally, reserving some land in "Proton City" would be a good idea.

6.3.8 Social and Political Risk

Social risk is not a recommendation as such, but a factor that should be taken into consideration. We have previously seen that Malaysia is composed of many different communities and that a certain balance is kept for now. However, it is hard to predict if this balance shall hold or if it could be disrupted sometime in the future. The last thing a company would wish is a very unstable social situation like in Indonesia. However, according to our view, the outlook for the future appears has being rather positive.

Another concern is what will happen in the political scene in the next few years. For now, the political system and the government is seen to be relatively stable. However one should keep an eye on the evolution of the situation. Mahathir will soon be on it last miles as Prime Minister of Malaysia and predicting who shall be able to lead the country is still subject to high speculations. A total change in the political system could ultimately have drastic implication for the country and its automotive industry.

6.4 Areas for Further Research

Through this investigation, we have mostly focused on our main research problem, i.e. the future outcome of the Malaysian automotive industry. However, there are a number of areas where further research would represent a good supplement to this thesis.

First, it would be interesting to further investigate the possible outcome of the political stability and the social order within the country. We have briefly presented the situation of those factors in empirical data; nevertheless, their future outlook and the resulting implications for Malaysia could be further investigated.

A second area of interest could be the increasing presence of China on the global market. We have seen that China has just joined the WTO. This situation will have far reaching implications for world trade, especially in industries rich in labor intensive products. The incidence of China on the automotive industry in Malaysia could then be subject of more research.

Another issue that would be good to analyze in more detail is cultural barriers. As we know, culture is one of the most important things to consider when investing in a country. However, since the purpose of this thesis was to predict the future, we have not looked into cultural factors in detail.

Finally, we believe that the theoretical findings of this research represent a good scientific contribution. It would therefore be interesting to test those models on other protected industries such as the Chinese automotive industry, textile and clothing and automotive in Australia, agricultural products in many countries such as United-States and Japan, etc.

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Names of interviewees have been omitted for the sake of confidentiality however the organizations which members were interviewed include:

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Perodua	TMEH Engineering
UMW Toyota Motors	United Industries Group
Tan Chong Motors	Sapura Motors
Gegroco	K&N Kenanga
MIDA	Malaysian German Chamber of Commerce
RHB Research	Asia-Europe Institute

The Edge	Malaysian Business Magazine
MAA	Scotiabank
The Star Newspaper	Cycle & Carriage
Volvo Car Malaysia	MITI
Honda Distributor	Business Times Newspaper
Daihatsu Malaysia	APM Automotive
ACM (Isuzu)	German Malaysia Institute
Majlis Amanah Rakyat	Naza Motors
Europel (Opel)	Malaysian Customs
Ford Motor Company	Auto Bavaria (BMW)
KPMG	Malaysian Institute of Economic Research
Hyunmal Malaysia	Tractors Malaysia
Scania	ABN-Amro Asia Securities
Lion Suzuki Motors	MBf-Peugeot
TRW Automotive	DRB-HICOM

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APPENDIX

Automotive Manufacturers and Assemblers in Malaysia

Manufacturer / Assembler	Passenger Car	Commercial Vehicle
1. Perusahaan Otomobil Nasional (Proton)	Proton (Saga, Wira, Waja Perdana, Putra, Juara)	
2. Perodua Manufacturing Sdn Bhd	Kancil, Kembara Daihatsu	Rusa, Kanari, Daihatsu
3. Associated Motor Industries (AMI)	Ford, BMW, Mazda	Ford, Scania, TATA
4. Assembly Services Sdn Bhd (ASSB)	Toyota	Toyota, Hino
5. Asia Automobile Industries Sdn Bhd (AAISB)	Mercedes Benz	Mercedes, Mazda, Kia
6. Swedish Motor Assemblies (SMA)	Volvo, Landrover	Volvo, Suzuki
7. Tan Chong Motor Assemblies (TCMA)	Nissan, Audi	Nissan, Subaru
8. Oriental Assemblers Sdn Bhd (OASB)	Honda, Peugeot, Hyundai Mercedes Benz	
9. Automotive Manufacturers Malaysia (AMM)	Citroen, Proton (Satria, Tiara)	
10. Industri Otomotiff Komersial (Inokom)		Permas
11. Kinabalu Motor Assembly (KMA)		Isuzu
12. Malaysia Truck and Bus Sdn Bhd (MTBSB)		Isuzu, Mitsubishi, Hicom MTB Perkasa, Pinzgauer, Ssang Yong
13. UMW Dennis Specialist Vehicles		Dennis (Ceased Operation temp.)
14. TVR Sports	TVR	
15. Bufori Motor Car Co. Sdn Bhd.	Bufori	
16. TD Cars Sdn. Bhd.	TD Cars	

** Source - MIDA*