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**AN OVERVIEW OF BRITISH AUTOMOTIVE INDUSTRY:
IMPLICATIONS FROM HISTORY AND RECOMMENDATIONS FOR
FUTURE**

Master's Thesis

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ABSTRACT

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This thesis is a literary research, which aims to uncover reasons for the downfall of automotive industry in the United Kingdom in the late 20th century. First, there is a short review on the history of the industry in the UK and then there are more present cases presented in the form of BMW-Rover and Tata-Jaguar Land Rover. Finally, the thesis suggests some ideas to which the UK should work towards in order to ensure future competitiveness.

The automotive industry in the United Kingdom is one of the oldest in the world, but as the end of last millennium was approaching it was not doing too well. Industry that was still flourishing in the mid-century was soon heading down river and by the end of the century all large English car manufacturers had either closed down or were forced under foreign ownership.

The thesis suggests possible targets for future prospects from the literary review and from the conclusions made. These are to ensure the continuity of the industry and the competitiveness on an international level. The suggestions are for long term and are mainly focused around research and development of renewable energy forms.

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<p>Tämä diplomityö on kirjallisuustutkimus, jonka tavoitteena on löytää syitä Englannin autoteollisuuden heikkoon tilanteeseen 1900-luvun loppupuolella. Aluksi on esitelty Englannin autoteollisuuden historiaa ja sitten tutkittu kahta tuoreempaa tapausta BMW-Rover:n ja Tata-Jaguar Land Roverin kauppohen muodossa. Tämän lisäksi on pohdittu toimia joihin Englannin tulisi pyrkiä jatkossa varmistaakseen menestys tulevaisuudessa.</p> <p>Englannin autoteollisuus on yksi vanhimmista lajissaan maailmassa, mutta viime vuosituhaten loppupuolella sillä ei mennyt kovinkaan hyvin. Teollisuuden ala, joka kukoisti vielä 1950-luvun alkupuolella, kääntyi nopeasti laskusuuntaan ja vuosisadan vaihteessa kaikki Englantilaiset suuret autonvalmistajat olivat joko sulkeneet ovensa tai siirtyneet ulkomaiseen omistukseen.</p> <p>Kirjallisuustutkimuksen ja johtopäätösten pohjalta työssä esitetään ideoita tulevaisuudelle, jotka mahdollistavat kyseisen toimialan jatkuvuuden ja kilpailukyvyn kansainvälisellä tasolla. Ehdotukset ovat pitkälle aikavälille, ja keskittyvät pääasiassa uusiutuvien energiamuotojen tutkimisen ja kehittämisen ympärille.</p>	

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BAI	-	British Automotive Industry
BAe	-	British Aerospace
BLMC	-	British Leyland Motor Corporation
BMC	-	British Motor Corporation
BMH	-	British Motor Holdings
BMW AG	-	Bayerische Motoren Werke
BRIC	-	Brazil-Russia-India-China
CCC21	-	Construction of Cost Competitiveness for the 21 st century
CO ₂	-	Carbon dioxide
DTI	-	Department of Trade and Industry
EVA	-	Economic Value Added
GM	-	General Motors
HC	-	Hydrocarbon
ICE	-	Internal Combustion Engine
NAIGT	-	New Automotive Innovation and Growth Team
NO _x	-	Nitrogen oxide
UK	-	United Kingdom
R&D	-	Research and Development
REGO	-	Reinventing Government
SMMT	-	Society of Motor Manufacturers and Traders Limited
TQM	-	Total Quality Management

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1 INTRODUCTION

1.1 Background

This thesis has been written for the Lappeenranta University of Technology Department of Industrial Management under supervision of Professor Tuomo Kässi. It was written between January and June 2010 while staying in Leeds, England.

The performance of the automotive industry in the United Kingdom (UK) has varied a lot during its history and especially in the last ten years it has seen a distinctive turnaround from one with infamous build quality and outdated products to one that produces perhaps the finest products in the world. While this has happened during the last few decades the world has also witnessed the movement of ownership of many traditional British brands to abroad from the United Kingdom. Brands like Rolls-Royce, Jaguar, Land Rover and MINI, which are deemed quintessentially British, are now owned by Indian TATA Automotive (Jaguar and Land Rover) and German BMW Group (Rolls-Royce and MINI). This fact raises questions such as why has this happened, what led to this and, what are the implications of this considering the future? The undermining goal and the question this thesis aims to clarify is that what have the stakeholders of British automotive industry done to make it where they are today. The times have been dire for the industry in the UK in the past, but for now, at least, it seems it is doing well.

It has often been stated that the ownership slide has been largely due to bad performance by the companies themselves and that the basis for all of this has been in the expensive British work force and poor build quality of the products. In this thesis the fundamental assumption however is that all of the above happened due to various issues with strategic and operational management. The assumption is that the companies got stuck into status quo, the management felt too confident with the present state of doing things and failed to realize the need for constant

change. Change in this context means change in products (innovation) and change in people on the organizational levels, as well as change in the industry field within the United Kingdom. The failure to realize that change was needed on all these parts was due to either lack of collaboration between the key actors or possibly it was just down to poor managerial choices.

1.2 Research questions and targets

This thesis is about automotive industry in the United Kingdom and is trying to find reasons behind the fact that over the last three decades the ownership of many traditionally British brands has slipped overseas from the country itself. It is also essential to assess the possible pros and cons the move of ownership might have had on the brands and companies in question, and the industry itself.

The research circles around these main research questions:

1. Why did the ownership of British Automotive Industry leak outside of Britain?
2. What were the implications of this?
3. What should the industry stakeholders do next?

The targets and the structure of this thesis were built around the research questions accordingly:

1. Define innovation, performance and change management, and the terms surrounding them.
2. Research present state of the automotive industry in the UK.
3. Present conclusions from the research and suggestions for the automotive industry in the UK.

1.3 Limitations

The limitations of this thesis are many, but most notably the fact that the object of monitoring are the automotive manufacturers and the government in the United Kingdom. The automotive manufacturers under review are ones that produce passenger vehicles including premium, sports, luxury and niche market vehicles. The scope excludes manufacturers that build commercial vehicles such as buses, coaches or other types of commercial vehicles.

1.4 Structure of the thesis

The thesis divides into three parts: the literary theory review, the British automotive industry review and finally, the conclusions and suggestions. The theoretical part of the thesis is a literary research on the terms and subjects involved. As leading chapters to organizational performance are innovation performance, productivity, decision making and finally organizational change. Productivity is a part of innovation performance, but is such a major factor in this context that it has been covered in its own chapter. The Industry review part consists of a review on the history and the present state of the automotive industry within the UK as well as two cases of BMW AG and TATA Automotive as examples to how the ownership of major British brands has moved abroad and what have been the implications of this. Case 1, which is about BMWs purchase of Rover Group, is done in more detail, and the implications and lessons learnt from this case are used to assess Case 2, TATA Automotives purchase of Jaguar Land Rover.

The last part of the thesis comprises of the conclusions and recommendations. In this part conclusions from the research are presented and answers to the research questions above are provided. The aim with the suggestions is to find the most feasible future state for the industry in the UK, so that it remains and regains its competitiveness compared to other industries, such as the United States of America, Japan, Korean, Germany and France.

2 INNOVATION

2.1 Definition of Innovation

It has been stated in various books (see for example Parker, 1982, p. 1; Webb, 2000, p. 17; Robert, 1995, p. 2) surrounding the subject of innovation that if organizations do not adapt to the changing environment and innovate they will eventually lose their edge and die. This is very true especially in the present time when the product life cycles are shorter than ever before and companies are struggling to come up with fresh ideas and products to replace the ageing ones.

Innovation as a term is one used quite loosely. According to the Oxford Encyclopedia innovation is a new method, idea or a product. (AskOxford, 2009). From Phillip Herzog's view the previous definition is a textbook problem in the definition of innovation as he elaborates that the concept is often mixed with invention. Herzog wants to stress the fact that innovation, on its most basic level, is an invention that has been commercialized. (Herzog, 2008, p.10)

John Ettlie, however, finds the definition, as used by Herzog, to be too restrictive and therefore suggests that, rather than speaking of commercialization, the definition should be about exploitation. Ettlie explains that this is because the term of commercialization hints that a "customer" would be exchanging something for the invention, which is not always the case. For example a hybrid course/unit or a new teaching method in a university can be seen as an innovation, and in these cases the customer, a student, is not paying for them directly. Therefore people talking about commercialization are more likely to mean research and development activities than innovation per se. (Ettlie, 2000, p. 4-5)

According to Jan Fagerberg invention is an idea of a new product or a process, and innovation the first application of this new idea. Fagerberg explains that the terms are closely linked and the line between an invention and innovation is

sometimes nearly impossible to distinct. (Fagerberg et al, 2005, p. 4-5) David Budworth agrees with Fagerberg stating that innovation is” *both the process of introducing something new and the new thing itself*”. (Budworth, 1996, p. 1)

As becomes clear from the various books regarding the issue (see for example Tidd et al, 2005; Budworth, 1996; Davila et al, 2006) defining the term of innovation specifically is nearly impossible and is often done so as reflection to one’s background, whether it is in production, marketing or whatever. Possibly the broadest definition for the term, and the definition this thesis follows, comes from the Innovation Unit in Department of Trade and Industry of United Kingdom government. According to them the definition is simply:

INNOVATION IS SUCCESSFUL EXPLOITATION OF NEW IDEAS.
(Budworth, 1996, p. 2-3)

2.1.1 Categories of Innovation

Tidd et al. divide the concept of innovation into four main categories: product, process, position, and paradigm innovations. They argue, that the borders between the categories are not exact, that for example a service innovation might be difficult to clearly categorize under product or process improvement as it can be either. Position innovation means a change in the context in which a product or a service is presented. (Tidd et al, 2005, p. 10-11) A good example of this is Coca-Cola drink which originally was developed as drug and which has then become successful in the beverage industry and the brand is one of the best known in the world (The Coca-Cola Company, 2009). Paradigm innovation is a change to the mindset that is affiliated with the product/service involved. Recent examples of this change of perspective include cheap flights (Virgin, RyanAir, EasyJet) and designer waters like Evian and Veen.

Innovation scholars also often divide the term into two main types between radical and incremental innovations. The relationship between these two types can be seen in figure 2.1:

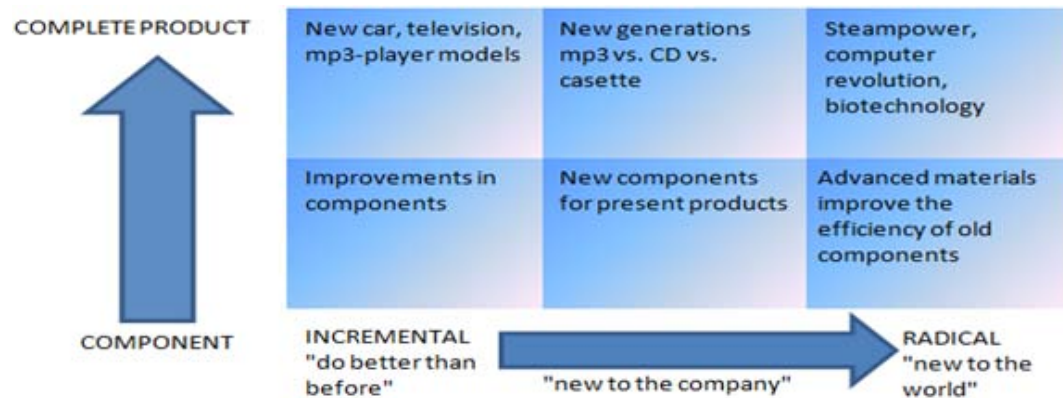


Figure 2.1 Innovation dimensions. (Tidd et al, 2005, p. 12)

As shown in the figure, incremental innovation exploits existing technology and either improves it to a certain point or reconfigures the how and for what it is used (Harvard Business Essentials, 2003, p. 2-3; Johne, 1985, p. 11). For example, Apple's iPhone 3Gs is an incremental innovation from the previous iPhone 3G; it merely incorporates a faster processor and larger capacity for storage (Engadget, 2010). A radical innovation, on the contrary, is something completely new to the world and transforms the way people use the given technology and think about it. The innovation types also describe the amount of risk involved. Launching a completely new product line is bound to be more risky than introducing a single product improvement. (Harvard Business Essentials, 2003, p. 2-3; Johne, 1985, p. 11; Tidd et al, 1997, p. 6-7)

2.1.2 Open and Closed Innovation

It has long been the standard in any industry to use Closed Innovation. According to Henry Chesbrough (2003, p. xx-xxi) there is logic behind this even if the rules of the logic were never written down anywhere, it was just self-evident and the

“*right way*” of doing things. Chesbrough states six main rules for Closed Innovation:

- We should hire the best and the brightest people, so that the smartest people in our industry work for us.
- In order to bring new products and services to the market, we must discover and develop them ourselves.
- If we discover it ourselves, we will get it to market first.
- The company that gets an innovation to market first will usually win.
- If we lead the industry in making investments in R&D, we will discover the best and the most ideas and will come to lead the market as well.
- We should control our intellectual property, so that our competitors don't profit from our ideas.

In the most extreme form the rules above mean that a company has to do everything itself, from the first idea generation to the actual assembly of the product and marketing it to the end users. The concept of Closed Innovation has however lost some of its ground during the end of the twentieth century and the beginning of the twenty-first. Mostly this is, according to Chesbrough, because of globalization and the expanding mobility of workforce and people in general. When the practice used to be that a person went to work for a company in his/her young age and stayed there until retirement age nowadays people move from job to job and from city to city more freely. The fact that people move more easily from job to job also meant that important knowledge leaked out when an employee left the service of a company, but it was also obtained when a new one was recruited. Also, the increased pace required from the firms to introduce new products and services made the lifetime of given technologies ever shorter. (Chesbrough, 2003, xxii-xxiii; Herzog, 2008, p. 19-20)

Another reason for the success of Open Innovation is the availability of private venture capital. During Closed Innovation era if a new groundbreaking invention was made within a company's laboratories it could be scrapped and hidden from competitors because there were no direct relations to the company's choice of business. Because of the large amount of private venture capital available the scientists and researchers who made the invention can now pursue success on their own by starting a new company. Most of these start-up firms are doomed to fail, but in case the firm was a success, it might eventually bring something out to the market, or be acquired by a competing firm. (Chesbrough, 2003, p. xxiv; Herzog, 2008, p. 25)

Due to these and other varying reasons the rules that made Closed Innovation logical in the past now seem redundant and irrelevant. The models of Closed and Open Innovation are presented in figure 2.2:

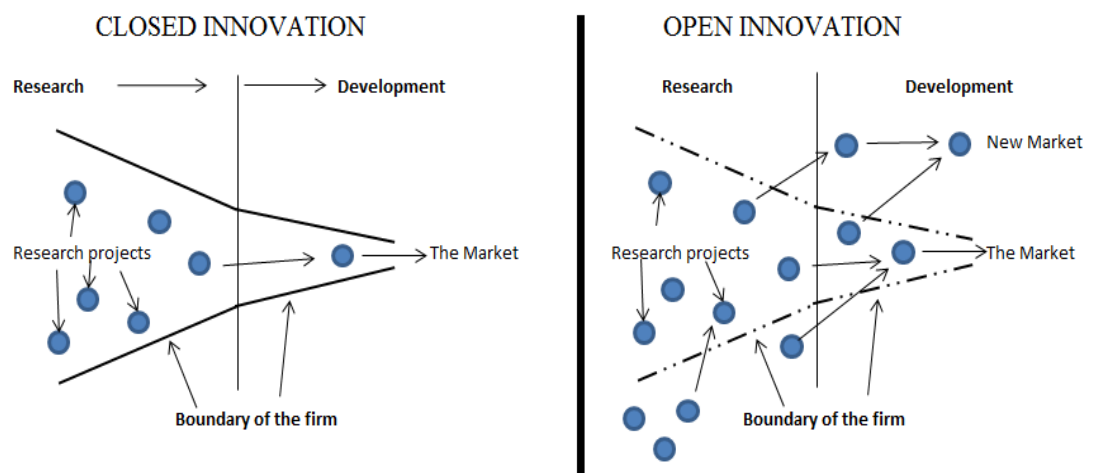


Figure 2.2 Closed and Open Innovation models in Industrial R&D. (Chesbrough, 2003, p. xxii-xxv)

A company's ability to acquire knowledge is essential for developing innovations and is the reason why firms have whole departments just for research and development activities. As shown in earlier chapter, R & D should not be considered as the only way for a company to acquire new ideas and knowledge. As innovation cannot happen in a vacuum there has to be other sources for information as well. (Rosegger, 1996, p. 182)

2.2 The innovation process

The process of innovation is shown in figure 2.3. In this model as presented by Davila et al (2006, p. 125) the process is open for ideas throughout all of the stages. Paul Trott explains that the process has been traditionally seen as sequence of separate activities. According to him innovation occurs as the result from interaction between the organization's capabilities, market place and the science base. In this case the process of innovation can be sequential, but it does not have to be continuous. (Trott, 2005, p. 23-25)

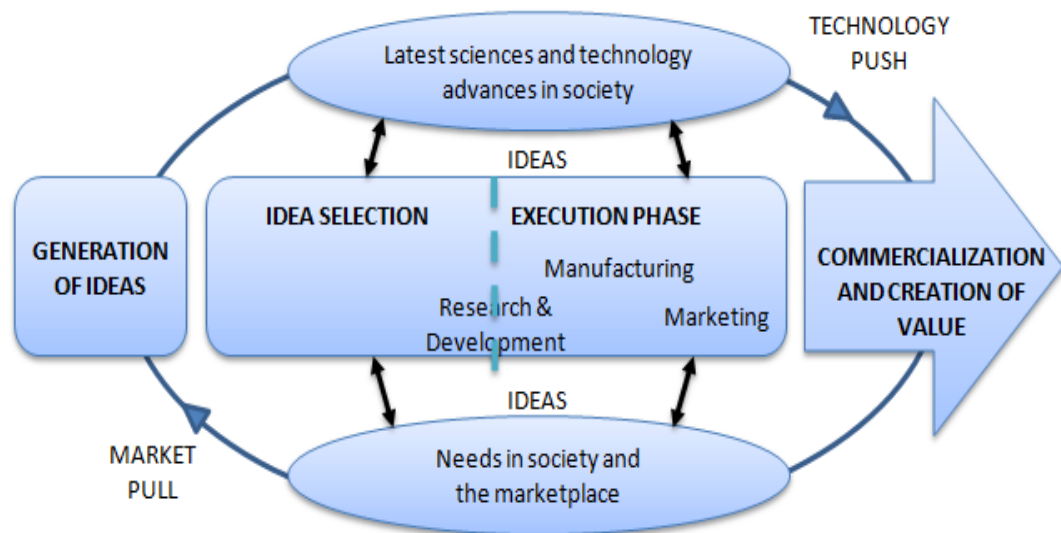


Figure 2.3 Innovation process. (Adapted from Davila et al., 2006, p. 125; Trott, 2005, p. 25)

The process begins with the idea generation phase. This can be started intentionally within the company or can be the result of observed market needs. Whatever is the starting cause the idea generation phase should be a criticism-free phase, everything and anything goes. As the process matures to the idea selection phase in comes the evaluation and criticism. In this stage the ideas should be compared to real-life execution possibilities and to the company's intended path of strategy. When the prospective ideas have been selected the process moves on to execution. It might be that many other innovations are required for some ideas

to reach the stage of execution and these could include process-, material- or some other innovations. Finally the process moves on to the last stage of creating value for the company which means the commercialization of the invention.

The last phase, which is the commercialization process of innovation, is similar to the typical lifecycle curve of products and services, as shown in figure 2.4.

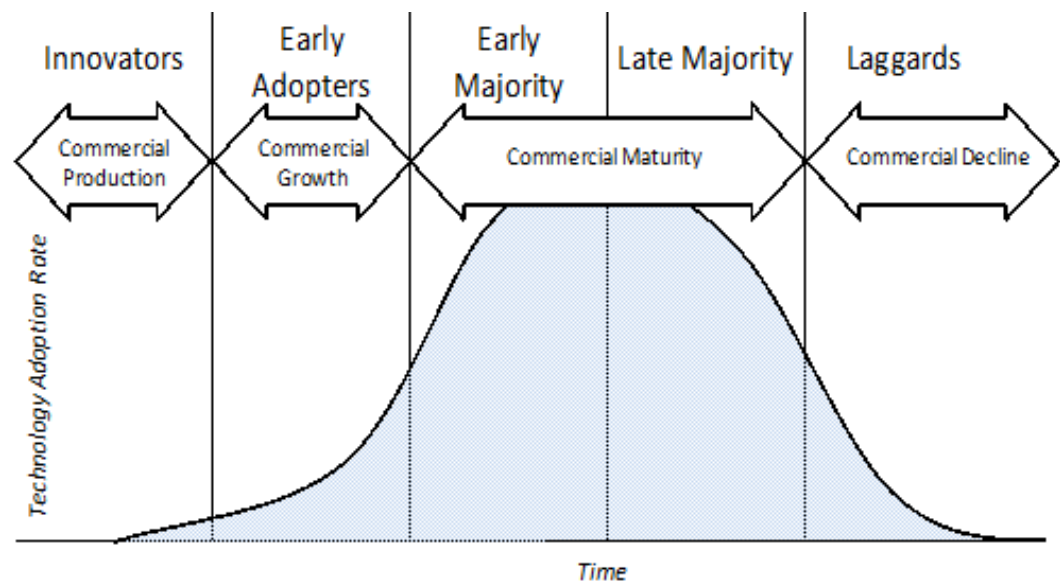


Figure 2.4 Innovation commercialization process. (Davila et al., 2006, p. 126)

As a new invention is introduced the Innovators are the first people to take use of it. This group of people is essential for ensuring the rapid success of a given product or a process. They are the ones that need to have the latest products before others, and are, in sense, free lobbyists for the manufacturers. After the innovators come the Early Adopters. Satisfying this group is essential as they will decide whether the product will be a success or not. Early Majority is, as its name suggest, the majority of consumers who need proof that a given product is worthy of their money. This is where most of the money is made and is also the stage when an incremental successor for a given product should be developed. When the product enters the Late Majority stage it is time to prepare for presenting a successor for the product. The Laggards are the last group of people who buy the product. In this stage the sales have already dropped considerably and a

substitution for the current product should have been introduced in order to avoid stalling the sales.

2.3 Innovation management

The basic definition for innovation management is, as offered by Paul Trott, that it is about developing the working environment and conditions within the organization towards ones that nurture and make innovative thinking possible (Trott, 1998, p. 112). In neo-classical economics the emphasis of study was usually economy or industry wide and the firms functioning in a particular field of industry were seen as identical. Differences in overall performance were only seen as a direct result of different market environments (external) the organizations faced. Since then the emphasis has changed, though. (Trott, 2005, p. 9)

According to the widely adopted Schumpeterian view (see for example Trott, 2005, p. 9; Tushman & Moore, 1988, p. 103), companies are not identical, but in fact the firm's innovation performance is heavily impacted on how one has managed ones resources and developed capabilities over time. Figure 2.5 shows the combination of the neo-classical and Schumpeterian views.

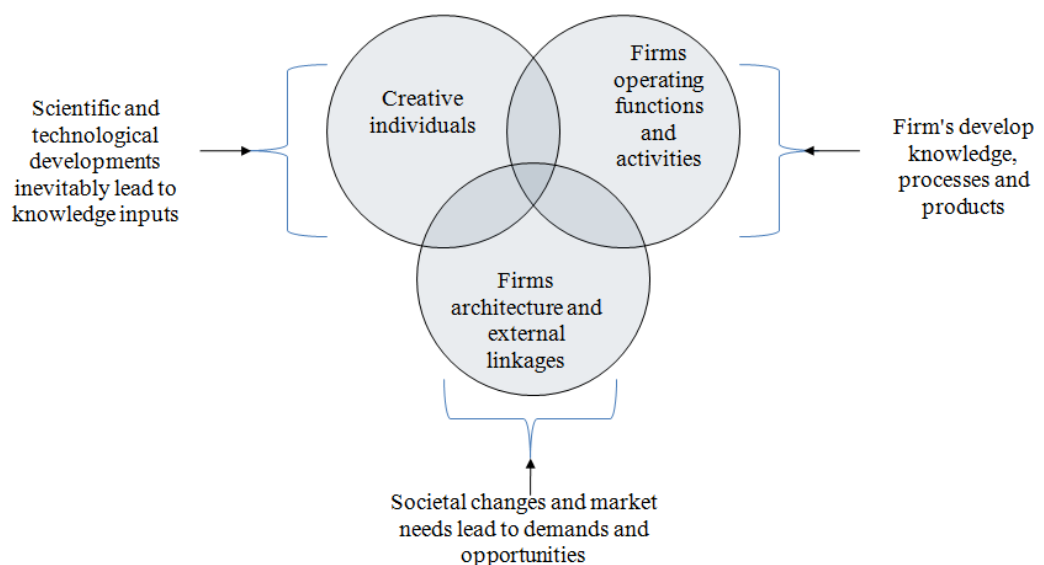


Figure 2.5 An overview of the innovation process. (Trott, 2005, p. 10)

The overview, as seen above, consists of perspectives on business management, economics and organizational behavior. Organizational behavior perspective is there to uncover the internal activities, but the figure also recognizes the fact that companies interact with each other, build relationships and operate alongside be it in competition or in co-operation. It also notices the individuals' effect on the innovation process within the firm. (Trott, 2005, p. 9)

It is important to recognize that innovation is more than often a team game. An invention can be made by a single person but an innovation to occur requires a team effort. This effort is presented in figure 2.6.

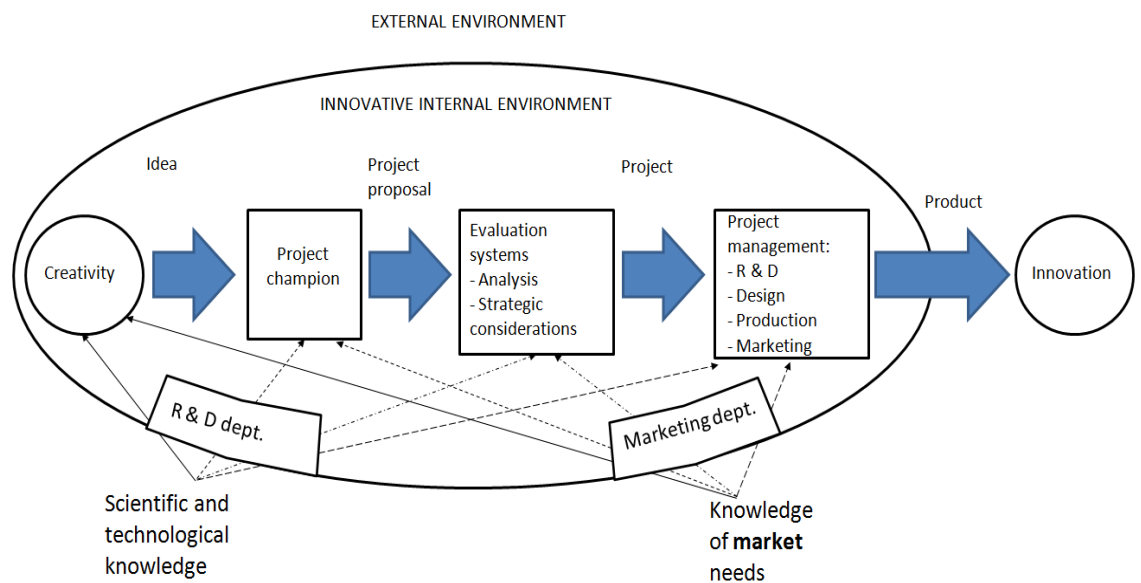


Figure 2.6 Egg of innovation. (Twiss, 1992, p. 25)

Especially in the present world significant innovations require vast amounts of resources in money, skills, knowledge and market experience. This is basically to say innovations therefore coexist with organizations. In history, there are multiple stories of how a single company has had a monopoly and dominated a specific industry. Nowadays, though, it is a rare occasion that a single company would lead a whole industry and that organizations are now required to specialize into particular areas to gain leadership. In order to create innovations specialists then

need to work together and co-operation between organizations is introduced. Innovation then is the result from various small cells acting together as an organ. (Trott, 2005, p. 9-11; Tushman & Moore, 1988, p. 103-136)

2.4 Innovation management systems

The effectiveness of management systems have been proven time and time again in various books and research papers especially in the big organization context. There have been arguments that big organizations could not innovate however this is not true, innovation just has to be managed. The fact that it might be difficult does not mean it could not exist. There has to be a right environment for innovation to flourish and innovation systems are a good way to provide the growing ground for this. (Davila et al., 2006, p. 120)

Innovation systems are information mechanisms, procedures and policies within a company that give shape for all the action happening inside the organization. Every single decision has to be done according to the policies and communicated via set routes. (Davila et al, 2006, p. 120)

2.5 Objectives for Innovation Systems

All innovation systems have to fulfill the following roles:

- Efficiency
- Communication
- Coordination
- Learning
- Alignment

A basic reason for the system to exist is the fact it has to improve efficiency within processes. This fact is ever more present especially with incremental

innovation where the time-to-market factor is emphasized. In innovation context, the detail and structure of the processes are not coded as, for example, in an assembly line where all the procedures have been standardized. This gives the team room to move about. (Davila et al., 2006, p. 121-122)

The second role for the system is to create communication lines between all key players within the company and outside of it. For the innovation team to work efficiently it requires specialized knowledge from various teams and the system is the perfect tool for combining these. All the needed information has to be available for all those needing it easily and whenever they may require it. (Davila et al., 2006, p. 122)

Third role is coordination between teams and projects. As big organizations are nowadays more than often global and have teams all around the world it is possible for one project to run actively 24 hours a day when three different teams run on for eight hours at a time. The system provides the necessary connections and allocation for needed resources so that all the teams can access them one after the other. Tetra Pak for one was able to reduce development times by 40 % with the use of management systems and making it possible for right people to work on one single project at the right time. (Davila et al., 2006, p. 122-123)

Learning is the fourth and possibly most important role for the innovation systems. With innovation, knowledge is created constantly and it needs to be stored and made available for the innovation teams and management. All the information has to be saved so the process and procedures can later be reviewed and analyzed with detail. This is especially important for incremental innovation projects where the process is repeated more than once. Reviewing the data from old projects makes it possible to spot possible problems and improve where improvement can be done. The knowledge within the organization has to be captured and harnessed to work for the company. (Davila et al., 2006, p. 123-124)

The fifth role is alignment. As organizations grow the top management cannot just rely for information to be passed on from person to person. People working on any level of the company have to be able to understand how their actions affect the overall innovation performance and from what it consists of. The information regarding innovation performance has to be communicated and then assessed how it compares to the objectives set. If the performance differs from the objectives then analysis of the reasons is needed. All this is to help the people working for the company to understand the relations of their actions to the objectives and therefore to improve efficiency of their actions and processes overall. (Davila et al., 2006, p. 124)

2.6 The dilemma of innovation management

Some sources (see for example Trott, 2005, p. 77-79; Tushman & Moore, 1988, p. 118-120) acknowledge that, when it comes to innovation management, there is a fundamental tension in organizations between stability and the creative freedom. Stability in organizations means routines and routines can be perfected. This means that routines are effective and therefore good for performance now. Innovation however requires freedom to create, to develop ideas and new products. As innovation is what makes the organization competitive in the future, it poses the question on how to balance the two actions effectively.

Some organizations have solved this by extracting the R & D department as a standalone unit or completely outsourcing it. This way the organization can act and follow its routines effectively and still be able to develop innovations to aid its business in the future. Whether this is a good idea or not is not for this thesis to decide but the fact is that innovating needs a certain atmosphere to be able to function properly. In his research Brian Cumming (Zairi, 1999, p.4) has gathered factors shown in figure 2.7 that have a positive effect on the steps involved with the innovation process.

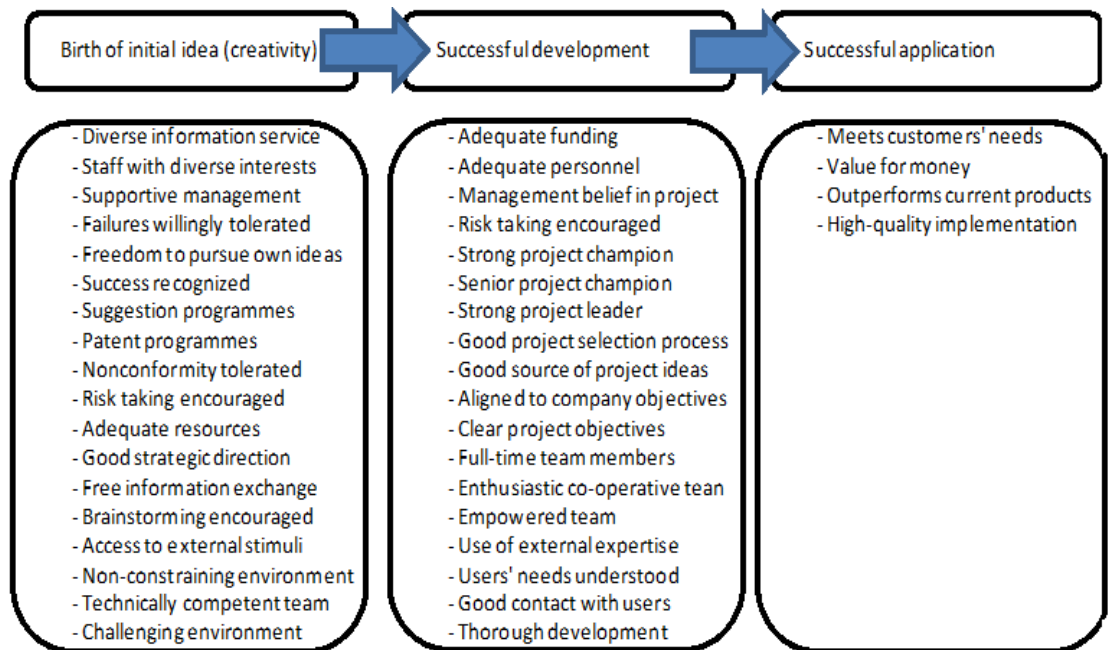


Figure 2.7 Innovation process and the factors making it work. (Zairi, 1999, p. 4)

3 PRODUCTIVITY

According to Wayne Cascio (1998, p. 16) “*productivity is a measure of the output of goods and services relative to the input of labor, material, and equipment*”. Evan Berman has a similar definition; according to him productivity is “*the effective and efficient use of resources to achieve outcomes*”. (Berman, 1998, p. 5)

The determinants for productivity lie in the technology being used, in the skills of the labor force and also in product and process innovations. Usually, when using a particular technology it is possible to analyze and estimate the possible, theoretical, amount of output with a given amount of inputs. Therefore, it is only logical to assume that there is a direct relationship and existing linking between inputs and outputs, which are common for organizations acting in the same or similar field of industry while using the same technology. (Mayes, 1996, p. 4-5)

Obviously, the actual level of productivity differs from the theoretical for numerous reasons. For example, the combination of labor and capital might be inappropriate or the use of it might be inefficient. This means that overall productivity can be improved by more efficient use of resources, even if the combination of these inputs was poor. It should also be noted that some sources acknowledge that the scale of operation will also affect the level of productivity. (Mayes, 1996, p. 6)

3.1 Reasons for productivity improvement

When productivity is high then the producing costs per single unit are lower. Simply put, improving productivity is about improving the ratio between the inputs and the outputs: the more output you get per input the better, as shown in figure 3.1. This ratio is also defined as efficiency. (Berman, 1998, p. 5-6; Cascio, 1998, p. 16)

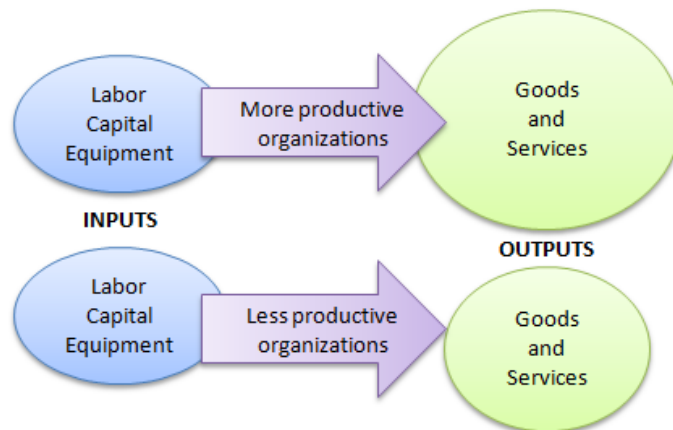


Figure 3.1 Organizational productivity. (Cascio, 1998, p. 16)

It is important to realize that efficiency, or the ratio between inputs and outputs, is the object of monitoring. It is not about increasing production by adding more resources. It is about using the resources better, about working smarter, not necessarily harder. Productivity is a corner stone for many things and as it improves, the company has more money to, for example, pay higher wages for the workforce. As work force gets better wages, it is logical to assume that the standards of living improve. As standards of living improve the quality of life improves. Quality of life affects directly to employee's productivity in the work place so in this view it is a case of more input, more output. (Berman, 1998, p. 6; Cascio, 1998, p. 16)

Organizations need to keep vibrant, relevant to society and up to date, and this is another reason why productivity is important. The reasons for productivity vary between teams and in organizations as whole, and these reasons have become ever growingly important in the recent years. Some of these reasons have been presented in table 1. (Berman, 1998, p. 4)

Table 1. Selected Reasons for Productivity Improvement. (Berman, 1998, p. 5)

<p><i>External Relations:</i></p> <ul style="list-style-type: none"> ▪ Increasing trust with external shareholders ▪ Getting organizations to be more responsive to clients ▪ Improving communications with citizens and elected officials ▪ Increasing the ability to partner effectively with other organizations 	<p><i>Marketing and Fund-Raising:</i></p> <ul style="list-style-type: none"> ▪ Increasing awareness of potential clients ▪ Increasing yields from fund-raising efforts ▪ Identify new client groups for services ▪ Improving the effectiveness of marketing efforts ▪ Improving the yield from grant proposals
<p><i>Management:</i></p> <ul style="list-style-type: none"> ▪ Increasing efficiency of routine tasks ▪ Increasing effectiveness of services ▪ Reducing administrative overhead costs ▪ Decreasing error rates and litigation ▪ Improving accountability ▪ Improving employee motivation and commitment ▪ Increasing advantages from information technology ▪ Getting employees to take responsibility for skill upgrading ▪ Making work teams more productive ▪ Improving the climate of trust in organizations 	<p><i>Volunteerism:</i></p> <ul style="list-style-type: none"> ▪ Reducing training time for volunteers ▪ Reducing turnover among volunteers ▪ Identifying new groups of volunteers ▪ Reducing complaints from supervisors and volunteers

The aforementioned reasons include things like making employees more skilled and efficient, reducing errors, improving trust within the organization and reducing the overhead costs. In these cases, the driving forces behind the improvement efforts are the managers who have specific concerns about projects and units inside the organization. (Berman, 1998, p. 4)

The stakeholder pressures are not the only thing that produces a need for productivity. The beliefs and managerial cultures on organizational performance also pose the same agenda. These beliefs and cultures are good because they often

lead to determined proactive actions. As the need for productivity comes from the managers themselves it is bound to be more effective than the stakeholder pressure alone as there is more commitment towards the improvements. (Berman, 1998, p. 4)

3.2 Some challenges to productivity

The challenges to productivity are often, in nature, philosophical, political, bureaucratic or personal, or to say human. The pressure in these cases is on the managers and in their ability to lead, teach and basically just to deal with these issues. (Berman, 1998, p. 19)

3.2.1 Lack of leadership

As most, if not all, productivity improvement strategies involve middle to top management support it is also the basis for most failures. If the management does not show support for the improvements important decisions are not made accordingly and the efforts might stall altogether. Another failure point is in focusing too closely to short-term improvements. Efforts like TQM (Total Quality Management) or program budgeting are long-term focused strategies and are incapable of producing positive results quickly. (Berman, 1998, p. 20)

Turnover amongst managers can also hinder productivity improvement efforts. As new managers are introduced there is a chance that they do not effectively show support towards the improvement actions and due to their lack of support momentum is lost. Leadership is a big part in dealing with challenges from stakeholders and other units, and also with lower management who may fear losing their power and control due to these improvements. (Berman, 1998, p. 20)

Possibly the worst failure amongst leaders is the total lack of interest in promoting improvements for productivity. There are different reasons for why a leader would

not promote these actions, especially in the public sector where board relations and fund-raising might be seen as more important tasks. The inadequate level of skills required and culture that is stuck in old ways of doing business does not help either. (Berman, 1998, p. 20)

3.2.2 Personal barriers

Some managers might have a fear of losing security or are just cynical towards the new improvement strategies. Some are so used to doing things their way that resistance towards new is high. This is usually accompanied by lack of necessary skills, tunnel vision, poor time management and inadequate interpersonal skills. When these managers are unwilling to lose grip of the old, to change, it is nearly impossible to make any changes. The unwilling managers might be difficult to identify as these negative traits are usually hidden, masked away. The managers who do this want to preserve the status quo they enjoy and are therefore unwilling in seeking improvement. Whenever a new improvement effort is presented, these barriers become self-evident. (Berman, 1998, p. 21)

4 DECISION MAKING

The basic definition for a decision is choosing between one or more alternatives. Decision is an act and commitment towards one thing rather than the other. All the people do decisions all day everyday on emotional and rational levels. It is all about selecting what one believes accounts for the best outcomes. On an organizational level the outcomes of decisions affect many people, whole industries, possibly even the whole world. (Barker, 1996, p. 9-10; Lee et al., 1999, p. 3)

There are many ways to divide the decision process (see for example Anderson et al., 2003, p. 3; Jennings & Wattam, 1998, p. 6) but in this thesis it is divided into seven stages:

1. Identify the problem
2. List the alternative solutions
3. Determine criteria for solution selection
4. Evaluate and select the best alternative
5. Implement and control
6. Evaluate the feedback
7. If possible, use feedback to correct the selection.

In this list the assumption is that the decision maker is a rational one and does ones decisions in an economic manner (moneywise). This assumption is because organizational decisions should never be done on an emotional level; instead, they should be calculated actions and reactions where the cause and effect should be known in order to achieve the best outcome situations.

Lee et al. (1999, p. 4-5) argue that rational decision makers in this context have obligations towards given stakeholders. These stakeholders might not be as influential as shareholders, but their needs have to be met nonetheless and be done

so in a balanced manner between all of the actors involved. This approach involves the assumption that there would be one best decision for all given situations, however this rarely is the case. The decision maker acts in an environment surrounding him/her; the organization and the environment the organization is in. There might also be other constraints affecting the decisions. These factors, as proposed by Lee et al. (1999, p. 4-5), include:

- lack of information
- imprecise definition of a given problem
- low selection of alternatives
- loose criteria
- constraints with time and money
- lack of skills
- lack of perception by the decision maker
- attitude collisions

As figure 4.1 shows, there is a multitude of internal and external factors affecting the organizations and given individuals decisions. External factors are the ones that affect mostly the strategic decisions of an organization however the internal factors have a direct influence towards an individual's decision making. The internal factors then affect the decisions made, which in effect affect the organizational performance, which in turn has an impact on the strategic approaches chosen.

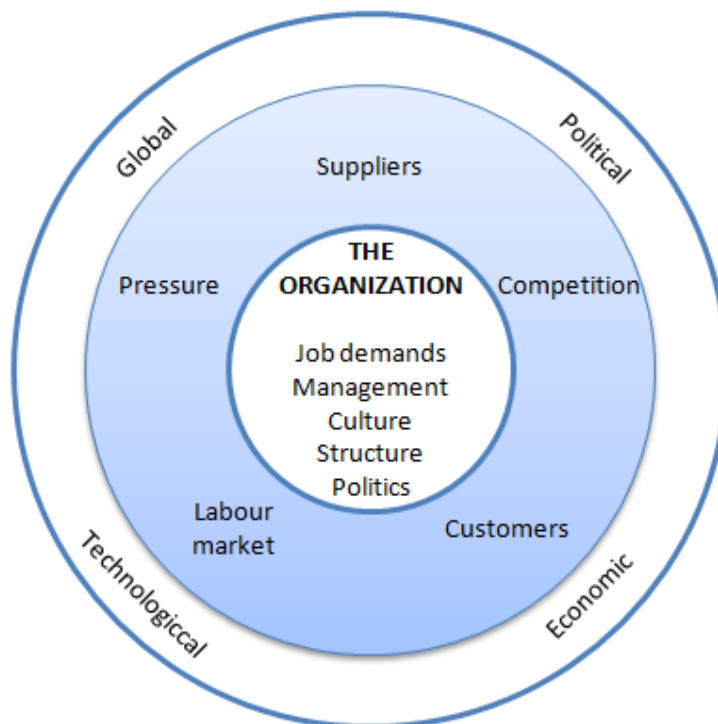


Figure 4.1 Organizational and external factors affecting decision making. (Lee et al., 1999, p. 5)

4.1 Decision making styles

Styles for decision making differ between the extremes of an individual making the decision and decisions made in a group. This confrontation is presented in figure 4.2. The degree of decision making also often reflects the size of the organization in which the decision is made. In small organizations it is the individuals running the company who make the decisions. When the organization matures and grows, it also moves up on the decision making ladder. Jennings and Wattam (1998, p. 83) as well as Frank Harrison (1999, p. 213) agree by stating that the individual decision making comes more and more irrelevant when the complexity increases and more specialists are brought in. In a group of specialist the synergy gained helps to improve the overall quality of decisions made in the organization.

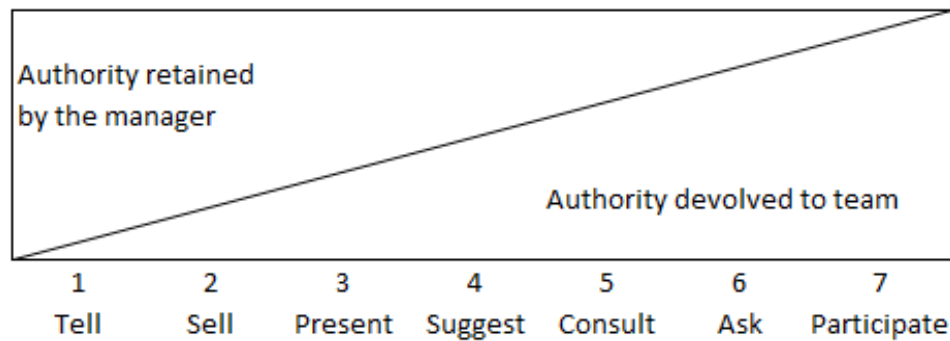


Figure 4.2 The continuum of leadership behavior. (Barker, 1996, p. 62)

The main reason for the extreme form of group decision making is the fact that with the ever growing complexity of subjects in hand an individual just does not have enough knowledge from all of the factors involved, this means more and more specialist are needed. Even if an individual manager makes a decision it still has to be adopted and accepted by others to take effect. When people get to influence decisions they tend to accept them better as well. There are identified key characteristics that give shape to an effective group, as presented in figure 4.3. The people involved should know the goals of the process, have accepted the working and behavioral norms and therefore be able to work together. They should possess the required knowledge to make the needed decisions and be democratic in the way they behave in a group. The group should have a leader, a charismatic facilitator who settles any disputes that may arise. The size of the group should still remain relatively small, usually meaning less than ten people involved, so that working remains effective and decisions can still be made. (Harrison, 1999, p. 213; Lee, 1999, p. 32-34; Turban, 1995, p. 339-340)



Figure 4.3 Characteristics of effective groups. (Harrison, 1999, p. 229)

4.2 Limitations to making decisions in groups

Although there are many benefits recognized for working and making decisions in groups, there are also some instances when decisions should be made by individuals, where the group decision making can actually be a hindrance. The characteristics related to these situations include:

- Quick reaction required
- Specific knowledge needed
- High degree of secrecy
- High degree of responsibility

It should be noticed that these factors should not be used as excuses by individual managers to not share the decision making between groups of experts. (Jennings & Wattam, 1998, p. 85) Other limitations to working in a group are presented in table 2.

Table 2. The dysfunctions of group process. (Turban, 1995, p. 340)

-
- Social pressures of conformity that may result in “groupthink” (where people begin to think alike, and where new ideas are not tolerated)
 - Time consuming, slow process
 - Lack of coordination of the work done by the group and poor planning of meetings
 - Inappropriate influence of group dynamics (e.g., domination of time, topic, or opinion by one or few individuals; fear to speak; rigidity)
 - Tendency of group members to rely on others to do most of the work
 - Tendency toward compromised solutions of poor quality
 - Incomplete task analysis
 - Nonproductive time (socializing, getting ready, waiting for people)
 - Tendency to repeat what already was said
 - Larger cost of making decisions (many hours of participation, travel expenses, etc.)
 - Tendency of groups to make riskier decision than they should
 - Incomplete or inappropriate use of information
 - Inappropriate representation in the group
-

As shown on the table above, one of the biggest problems in group working is groupthink. The concept was originally developed by Irving Janis and it describes a situation where a group has fallen in to status quo, to a state where all of the members are acting in excessive cohesion. The members feels that the group is indestructible and cannot make a wrong decision. Whenever there are signs of non-conformity within the group pressure is applied and “*disbelievers*” are brought back in line. There is tension between the members of the group, for example there might be employee-boss relationships, which are difficult to ignore although they should be, and in extreme situations this might result in outright fear from the employee side to speak up or present any new ideas. All of this account for lack of self-censorship as a group, and even ideas that are self-evidently bad can be unanimously accepted. (Dearlove, 1998, p. 155-157; Harrison, 1999, p. 230-231; Lee et al.,1999, p. 34-35; Jennings & Wattam, 1998, p. 94-95)

The result from groupthink is poor quality of decisions made. As the alternatives are not brought up and examined properly, negative data and risks are ignored, then chances of making bad decisions increases significantly. There are things that can be done to prevent groupthink, though. As mentioned earlier, the group

should have a strong and charismatic leader who could promote and encourage open expression of doubt, accept criticism towards the leaders own opinions. To prevent the fear of criticizing the higher ranking member's opinion the high-class members should offer their opinions last. If the group is larger than five members then it would be wise to divide into subgroups. The final measure would be inviting outsiders to join the decision making meetings to provide reactions and outsider opinions as well as act as the dissenting voice. (Dearlove, 1998, p. 157; Jennings & Wattam, 1998, p. 95)

5 ORGANIZATIONAL CHANGE

Organizational change is about getting rid of the old way of doing things and implementing new practices that bring positive outcomes. Change consists of three stages; old stage, transition stage, and the new stage, and the management of change is important through all of the stages. (Carr et al., 1996, p. 3-4) Especially in the present economic climate, change management is vital for major organizations. Companies need to change just to stay put in the business field as the field itself is constantly moving and changing rapidly. If an organization is unable to adapt with the changing driving forces in the environment it will soon run out of options and is either going to die or be forced to undergo major transformations. (Balogun & Hope Hailey, 2004, p. 4-6; Holbeche, 2005, p. 5)

Change, and the management of it, is difficult, though. According to various reports three out of four attempts to change are doomed to fail. The reasons for this vary from bad or late decision making to inappropriate business strategies. The most profound reason for failure is in the human domain. As change is basically a learning process the most effective change occurs when a person is compliant to learn. Resistance is not rare, but it can be overcome with guiding. Basically, managing change is about managing people through it. (Balogun & Hope Hailey, 2004, p. 4-6; Holbeche, 2005, p. 6)

According to Holbeche, in order for the change to be successful the organization needs to be stable before the process begins. As employee motivation is highly required for successful change, it is important that trust between the organization and the employee is maintained throughout the process. Losing trust of the employees can and most likely will damage the whole foundation of the organization. In the present world the employees understand that relational contracts are a thing of the past and take more responsibility for managing their own careers. As employees with extraordinary skills are difficult to find it is in the employer's best interests to take care of the employees needs and therefore ensure

that the skilled working force is happy to be where they are. (Holbeche, 2005, p. 6-7)

Barbara Senior summarizes, that for the change to be successful there should be constant monitoring of the surrounding and internal environments of the organization. Also, the managers of change need to understand the characteristics for different types of change situations. Similarly, although planning is a key to many things, all plans should remain flexible, as rigidity is another hindering factor for change management. Finally, it has to be understood, that there is no one best way of doing things. Thus, understanding the variety of change situations and being familiar with the variety of characteristics involved will allow more room for a successful path selection to occur, and in this way increases the chances for successful outcomes for the change phase as whole. (Senior, 1997, p. 295)

5.1 Process of change

As mentioned earlier and as illustrated in figure 5.1, the process of change consists of three stages; the old (past), the transition (present) and the new stage (future).

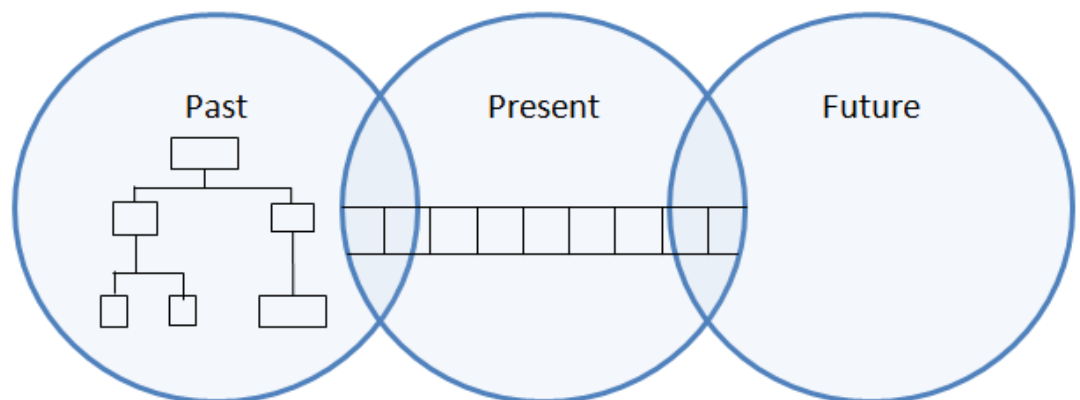


Figure 5.1 Organization transition. (Clarke, 1994, p. 80)

The process of change is iterative and not linear. It starts when the old habits and ways of doing are deemed old-fashioned and inefficient, and the search for new practices is put in motion. Figure 5.1 poses three questions the organization should ask itself when it discovers the need for change:

1. What is our present state?
2. What were we in the past?
3. Where do we want to go from here?

When these questions are posed for the management of the organization and they are allowed to brainstorm freely, a start for the process of change has been achieved. The model of “unfreeze-change-refreeze” sums up the process, as illustrated in figure 5.2. (Clarke, 1994, p. 80)

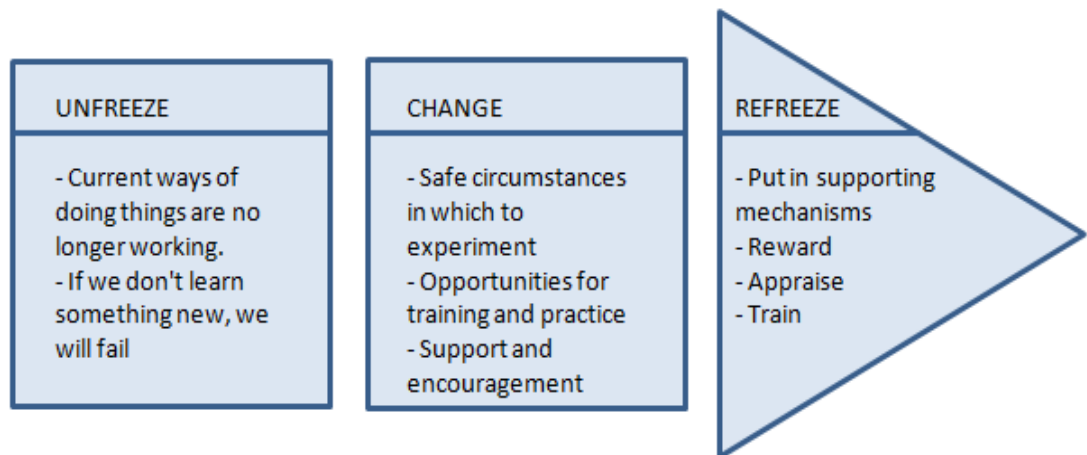


Figure 5.2 Learning to change. (Clarke, 1994, p. 81)

The process starts from destabilizing or “unfreezing” the organization as change can only occur if the boundaries are brought down. This is not in contrast with the earlier statement that an organization has to be stable before change can be set in motion. If an organization is already unstable before the change process there is very little chance for the process to succeed. As the unfreezing happens the process is really set in motion and momentum builds up. When the transition or change has started the employees require support and coaching to preserve their trust towards the organization. When the change phase has finished comes the last

part of “refreezing”. Refreezing in this case means making sure that the new ways have been learnt and implemented thoroughly throughout the whole organization and making sure that regress will not occur. (Blair & Meadows, 1996, p. 29-30; Clarke, 1994, p. 80-81)

The reality of the change process is that during the transition the productivity will most likely suffer, however this is a momentary situation, see figure 5.3.

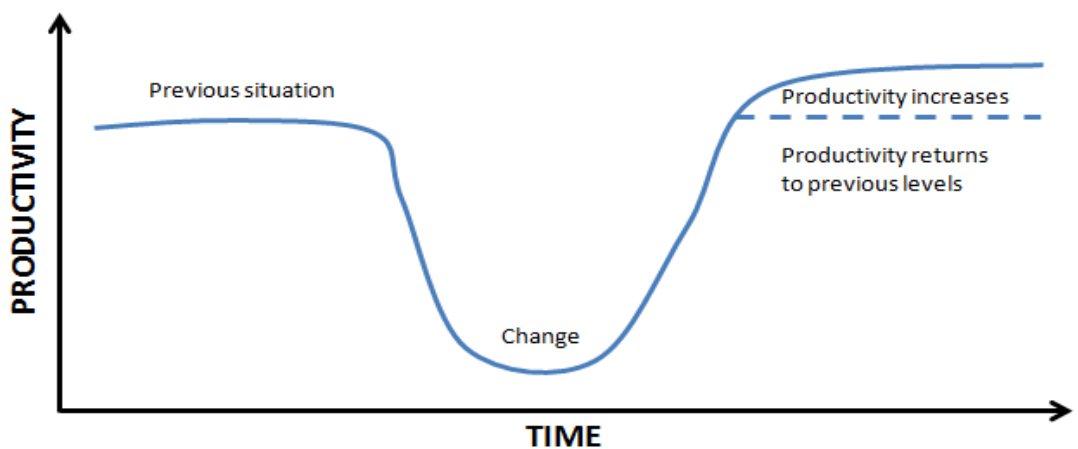


Figure 5.3 Productivity curve. (Clarke, 1994, p. 83)

The reason behind the drop is the gap between forgetting the old and learning and adapting the new practices. As the new ways are adapted productivity restores. If the process is successful, increases in productivity can be achieved. The process of change has a similar lifecycle as products, for example. First, there are innovators who adapt to the new ways easily. They get the momentum for the process and growth begins. In time, maturity is reached and people start to look for new ways of doing things again. As decline begins a new change process should already be in motion. (Clarke, 1994, p. 82)

Ian McLoughlin and Martin Harris (1997, p. 10) argue that the model of unfreeze-change-refreeze, as presented here, draws many ideas from Kurt Lewin’s Field Theory. They feel that the analogy of this model cannot be directly implemented, or are at least less helpful, in certain circumstances. They elaborate that if an industry, market and technology are in perpetual change the attempt of refreezing

can become pointless too quickly. Also, modifying the approach to fit various types of contingent circumstances might still maintain a model for change management that is too rational.

5.2 Types of change

As figure 5.4 indicates there are four main types of change. These four types are also defined in two dimensions between the nature and the end result of change.

		End result	
		Transformational	Realignment
Nature	Incremental	Evolution	Adaptation
	Big bang	Revolution	Reconstruction

Figure 5.4 Types of change. (Balogun & Hope Hailey, 2004, p. 20)

5.2.1 Non-paradigmatic change: adaptation and reconstruction

Adaptation is an incremental type of change and it occurs slowly through staged initiatives. One example of this is Toyota's CCC21 program (Construction of Cost Competitiveness for the twenty-first century) which was to reduce overall costs by eight billion dollars in four years time by reviewing the design, procurement, manufacturing and fixed costs. (Balogun & Hope Hailey, 2004, p. 21)

Reconstruction is a type of change where the operations inside the organization are realigned, similarly as in adaptation, however in more dramatic and faster pace. Most attempts to change fall into this category and are usually important and significant considering the organizations long-term survival. (Balogun & Hope Hailey, 2004, p. 21)

5.2.2 Paradigmatic change: evolution and revolution

A gradually implemented transformational change is called evolution. Evolution of an organization is proactive, likely to be planned and is undertaken and put to action by managers who have recognized the need for change. The extent of evolution can vary from small gradual change to more emergent manner, where each change program builds on the previous programs. (Balogun & Hope Hailey, 2004, p. 21-22)

Revolution is also paradigmatic transformational change like evolution but occurs in a relatively short period of time and usually simultaneously on more than one front. The nature of revolution is reactive, often forced, transformation and this is due to the quickly changing competitive conditions the organization is put against. This type of change is rare in reality and usually also requires a long-term evolutionary change to weld the organization back together again after the revolution. (Balogun & Hope Hailey, 2004, p. 22-23)

5.3 Paths of change

As an organization changes the eventual aim may be to achieve a complete transformation. The problem is that the organization might lack the skills, resources or finance to do so. Alternatively, it could be in a crisis, losing money rapidly and would need to stop the spiral of death in order to take any action towards long-term change. Depending on the context, there are different paths of change to choose from. In this case, the word “*choose*” already poses the assumption that change could be planned, although some sources disagree or at least argue, that it often emerges in unexpected ways. (Balogun & Hope Hailey, 2004, p. 23; Senior, 1997, p. 293)

The most popular path of change, reconstruction followed by evolution, is shown in figure 5.5. For example, in the 1980s British Airways undertook this approach by launching a cultural transformation which was eventually followed by a financial turnaround. First, the workforce was downsized and unprofitable routes were closed. Then, the image of the airline was changed from a company offering transportation to one that offered customer service. (Balogun & Hope Hailey, 2004, p. 23-24; Thornhill et al., 2000, p. 82-84)

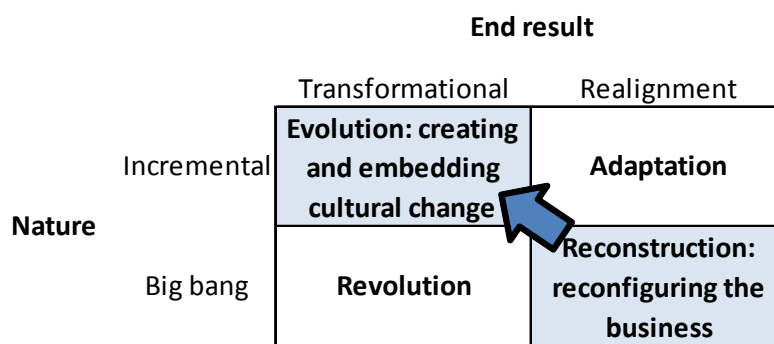


Figure 5.5 Paths of change. (Balogun & Hope Hailey, 2004, p. 24)

This is not the only path of change, though. For example, a pub and restaurant business S&N Retail undertook a route of reconstruction followed by revolution. First the reconstructive phase was set off by selling the pubs and restructuring the business. Then a culture change process was attempted at the new main office. This approach was found to be difficult, though, and in 2003 S&N was seeking a buyer for S&N Retail. (Balogun & Hope Hailey, 2004, p. 26)

Various examples suggest that organizational change should be started with enabling non-paradigmatic change and then moved on to long-term transformation. This should also be followed with a move back to adaptation to ensure the thorough implementation of new changes across the organization. (Balogun & Hope Hailey, 2004, p. 26)

5.4 The driving force of change within an organization

As Bruce and Wyman (1998, p. 10-11) explain, change within an organization can be happening either due to actions from management, but as the change process evolves it can also be driven by the participation of non-management personnel. The figure 5.6 shows a continuum of the driving forces behind change.

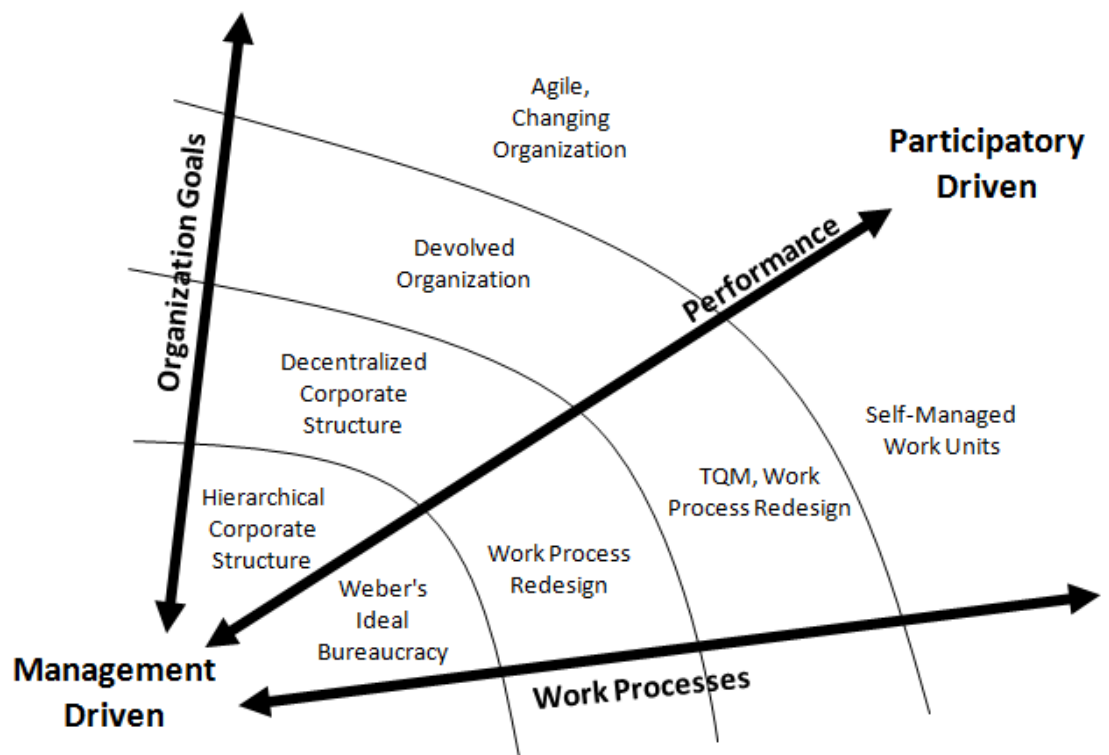


Figure 5.6. Management Driven and Participatory Driven Change. (Bruce & Wyman, 1998, p. 11)

Depending on the situation, management-driven change is often led by managers using various techniques and varying degrees of personal leadership, ranging from participation to authoritarian style. The main point to understand is that the power is mostly, if not fully, in this case executed by the managers. Examples of management-driven contemporary techniques include reinventing government (REGO), total quality management (TQM) and strategic alignment, to name a few. (Bruce & Wyman, 1998, p. 10)

As opposed to management-driven change, participatory-driven change is about sharing the power and responsibility between management and employees. This approach encourages the employees to participate into various organizational actions including response-strategy development, innovation and problem identification and solving. The efforts mentioned often include deep employee collaboration with immediate management and in some cases top-level executives. (Bryce & Wyman, 1998, p. 10-11)

5.5 Predicting change

The nature of change is unpredictable, but with organizational growth some stages can be recognized. As growth and activities are parts of living, the concept of organizational lifecycle can help understand the needed change and the issues related to the situation. Greiner's growth model is perhaps the most well-known model that separates organizational growth stages and the crises involved, as shown in figure 5.7. (Senior, 1997, p. 39) It should be understood, that all businesses may not go through all these stages and crises in this very order.

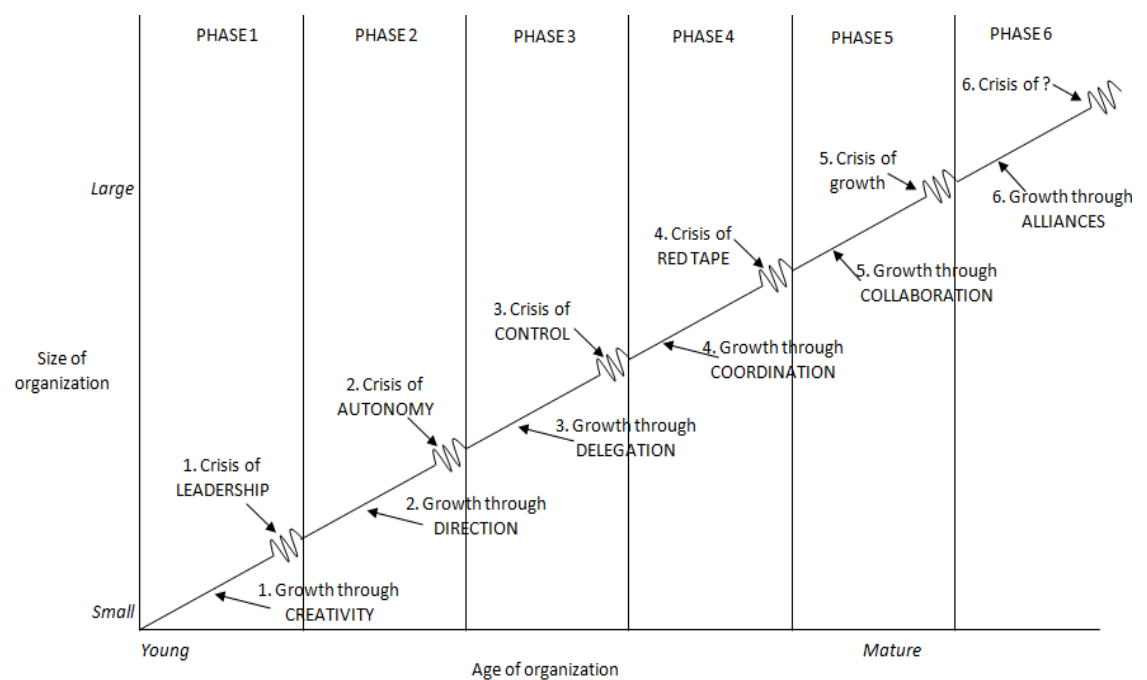


Figure 5.7. Greiner's 6-phases model. (Adapted from Senior, 1997, p.39)

The model proposed by Greiner is useful in identifying the position of the organization and the possible crises following the situation. The first stage is the creative one. When the organization is born the emphasis of the activities are on the product or a service and the market. As success arrives the company grows and needs to recruit more people. As the number of employees grows the issues with management start to emerge and before soon the crisis of leadership occurs. To overcome the crisis a strong leader is needed, one that will implement new business techniques and get people working towards one direction. (Greiner, 1998, p. 60; Senior, 1997, p. 40-41)

The second phase is all about able leadership that can embark the organization with direction. As the company matures, grows, and implements more levels of management the second revolutionary phase is presented. Now the managers need to empower the lower-level management, to let go of some of the responsibilities and focus on more important matters concerning the growth of the company. (Greiner, 1998, p. 60; Senior, 1997, p. 40-41)

Third phase is about decentralizing the organizational structure. Responsibility of the managers is increased and top-level management is acting in accordance to information from lower-level management. The growth in this delegation phase is mostly gained due to increased motivation and actions of lower-level management. The next crisis emerges as the top-level management realizes the decreasing level of control they have over the highly diversified field of operations in the organization. In order of regaining the control over the organization as whole a new solution has to be found and new coordination techniques have to be implemented. (Greiner, 1998, p. 60-62; Senior, 1997, p. 40-41)

The following phase of coordination is characterized by the introduction of formal systems that help with coordination. These systems allow the organization to allocate resources with more accuracy and managers learn to justify their actions

for the top-level executives. As the organization expands the confidence levels between the top management and lower-level management decreases. The rigid systems and formal programs cannot manage the size and complexity of the organization anymore and the red tape, bureaucracy, becomes overwhelming. (Greiner, 1998, p. 62; Senior, 1997, p. 40-41)

The fifth phase is about collaboration. Whereas in the previous phase management was done through systems and programs now it should be done via interpersonal collaboration. The previous formal control systems are simplified and combined into multipurpose systems. Overall, management should be more flexible and have more emphasis on the behavioral approach. (Greiner, 1998, p. 62; Senior, 1997, p. 40-41)

Greiner has recently added a sixth phase to his Growth Model. In this last phase growth occurs through networks or actions involving other companies. The biggest obstacle in the last crisis is about realizing that there is no internal solution, as in new products or services, for growth but growth has to be created with alliances with other organizations. (Greiner, 1998, p. 65)

Predicting change then is essentially an act towards a given external or internal situation. In best case scenario a need for change is realized within the company and is not forced by the external environment. If the need for change is observed, a proactive approach can be applied and the transition stage will be smoother. In a forced situation the importance of skilled management is emphasized as the time for making decisions is shortened and the vision of the decision maker might be obscured by the situation itself.

6 ORGANIZATIONAL PERFORMANCE

This chapter has been largely adapted from the work done by Tiitinen and Immonen (2009, p. 4-8).

6.1 Definition of performance

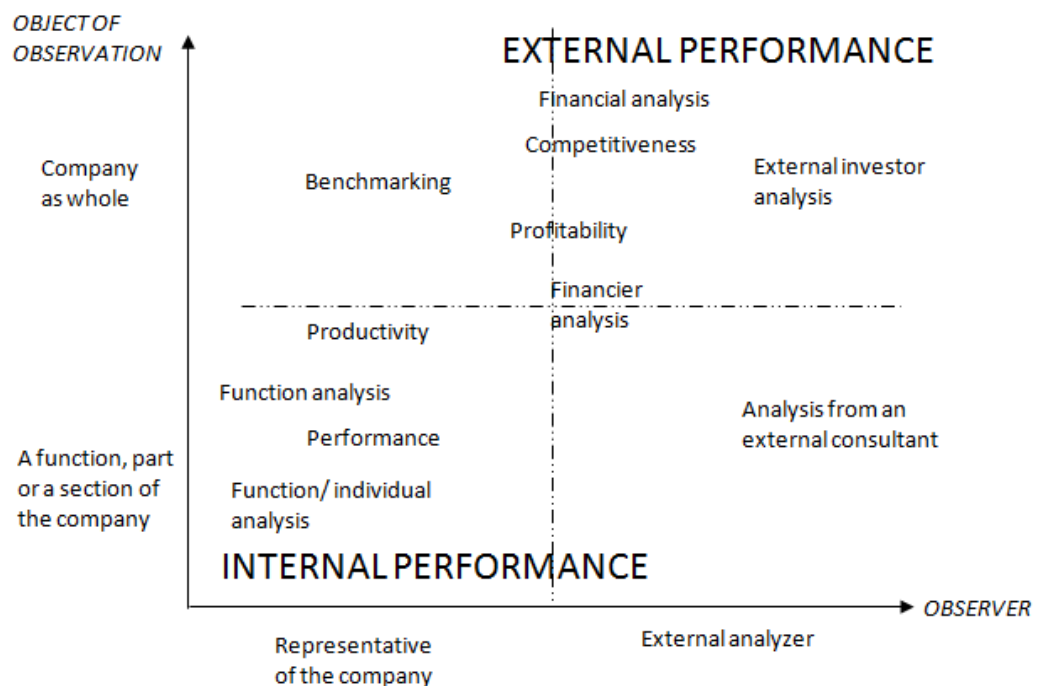
On a general level performance can be defined as an ability to create results that can then be measured using specifically created meters. Basically, the aim for any company is to be profitable, to bring in money for the owners, and for this reason performance is often considered as a synonym for profitability. (Laitinen 1998, p.279; Rantanen 2007, p. 8) Porter (1991, p.96) however believes that performance should be considered as a path way, as competitiveness that in the end results in as profitability.

In this case the competitiveness and success will be measured against the toughest competition. Hunt & Morgan (1995, p.6) define performance mainly as better financial performance compared to the opposition. Kaplan (1984, p. 98) argues that the objects of performance measurement can be financial and also non-financial. It is clear that performance, just like innovation, can be defined in various ways. It should also be clear that a company's overall performance should not only be measured as financial results but as whole, taking into account the non-financial aspect as well.

6.2 Performance categories

Performance can be categorized in various ways. As mentioned in the earlier paragraph, one clear way of doing this is to divide performance into financial and non-financial dimensions (Rantanen & Holtari, 1999, p. 8). Another way is to divide it between internal and external performance. The figure 6.1 shows the

breakdown of performance taking into account the observer and the object under monitoring. It should be noticed, that the borders are blurred and they differ depending on the observer. Analyzing internal performance is about taking an insider perspective on the company, which means that the concentration is on the functions and parts of the organization. Also, it has to be understood that a company can analyze both the internal and external performance themselves and should be doing so to not distort the perspective of the observer. External performance as a term describes the organization's ability to function as a part of the surrounding society and in the competitive environment. External performance is often analyzed using the information from the company's bookkeeping, analyzing its own functions and various competitor-analyses. Internal performance analysis makes use of the information coming from accounting, especially from cost accounting. (Rantanen, 2002, p. 5-12; Rantanen, 2007, p. 22-23)



Picture 6.1 The internal and external performance of a company. (Rantanen, 2002, p. 5)

Sink (1985, p. 41-46) divides performance depending on its features. He divides performance into seven subcategories: effectiveness, efficiency, quality, profitability, productivity, quality of work life and innovation.

Effectiveness: Describes how well a company has reached the measurable goals set for its real and financial processes.

Efficiency: Describes the relation between the planned and actual, realized, inputs.

Quality: Is the ability to satisfy the needs and expectations of a customer.

Profitability: Describes the efficiency of using financial resources – ie. the relation between revenues and expenditures.

Productivity: Describes the ability to create outputs from inputs.

Quality of work life: Describes the reactions of the work force towards the working environment. Also describes the level of satisfaction of their needs and about the motivation towards the work itself.

Innovation: Describes the ability to renew and to develop new products and processes – the ability to create innovations.

The subcategories of performance come together as good performance in the way Sink (1985, p. 64) has presented in figure 6.2. Good performance in this case means both long and short term success compared to competitors and self set

goals. An organization that is both effective and efficient, and whose processes are of good quality, is likely to be productive. To maintain performance in the long run the organization must maintain the quality of work life and the ability to innovate. If all of the above mentioned points are fulfilled the organization is more than likely going to be profitable.

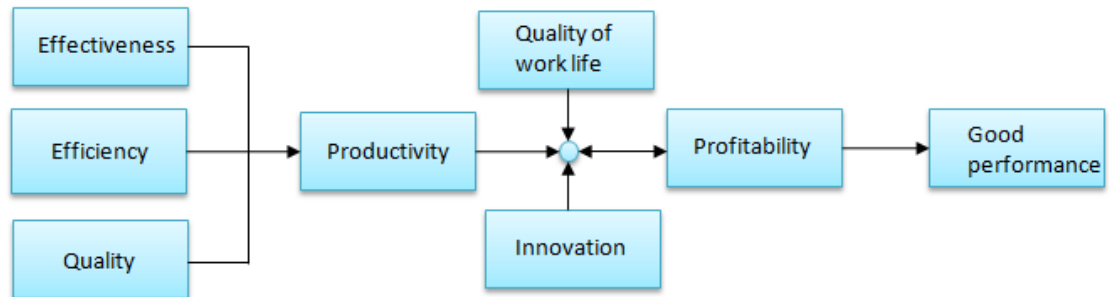


Figure 6.2 The relations of performance subcategories. (Sink, 1985, p. 64)

Another point of view is provided by Lynch and Cross and the performance pyramid they have designed. In performance pyramid the performance is divided roughly into two categories: external and internal performance. The starting point is for the customers and the owners to define what in the company is important to measure. The competition then sets the bar and dictates how well the company has to perform. There are metrics for every level and division of the organization, and the breakdown is based on the customer point of view. (Rantanen & Holtari, 1999, p. 10)

Hudson et al. (2001, p. 1102) define the most important subcategories of performance as quality, time, flexibility, finance, customer satisfaction and human resources. Table 3 shows these subcategories and related terms about the company and its actions.

Table 3. The most important subcategories according to Hudson et al. (2001, p. 1102).

Quality	Time	Flexibility	Finance	Customer Satisfaction	Human resources
Product performance	Lead time	Manufacturing effectiveness	Cash flow	Market share	Employee relationships
Delivery reliability	Delivery reliability	Resource utilisation	Market share	Service	Employee involvement
Waste	Process throughput time	Volume flexibility	Overhead cost reduction	Image	Workforce
Dependability	Process time	New product introduction	Inventory performance	Integration with customers	Employee skills
Innovation	Productivity	Computer systems	Cost control	Competitiveness	Learning
	Cycle time	Future growth	Sales	Innovation	Labour efficiency
	Delivery speed	Product innovation	Profitability	Delivery reliability	Quality of work life
	Labour efficiency		Efficiency		Resource utilisation
	Resource utilisation		Product cost reduction		Productivity

De Toni & Tonchia (2001, p. 52-59) have a similar approach to the usual financial – non-financial -division, but their approach emphasizes the importance of costs. This means that they divide performance into costs and the management of costs, and also to non-cost sections (see figure 6.3). The “COST” –section includes production costs and productivity, which is in direct relation to the company’s outcome and profitability. The “NON-COST” –section is shaped by time, flexibility and quality perspectives, which are measured with non-financial meters. The relation from these meters to the final outcome and profitability of the company is indirect.

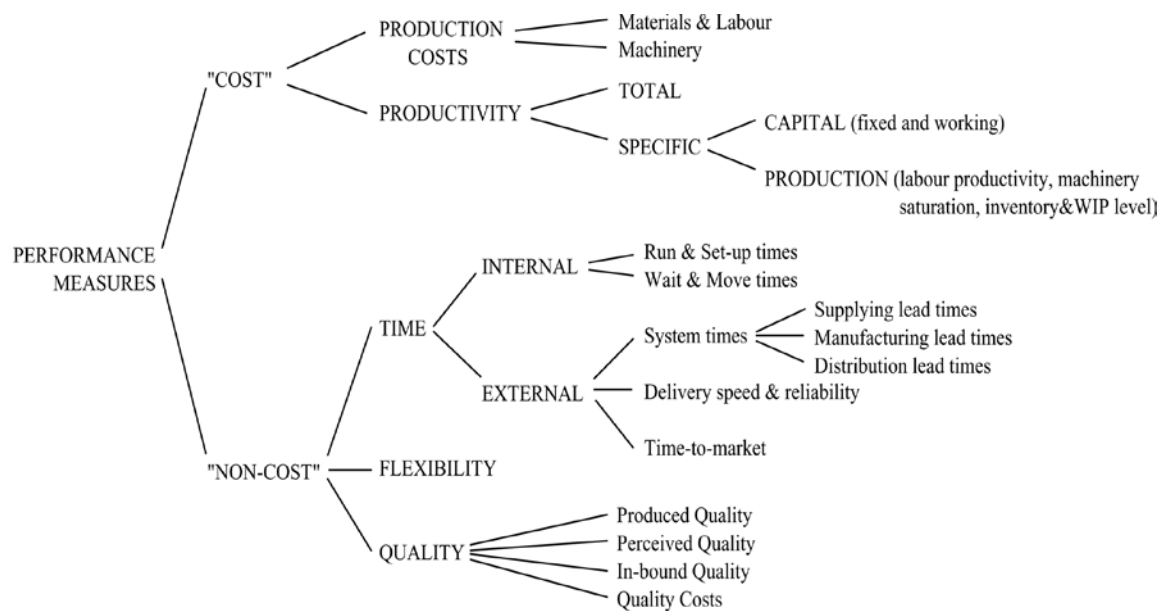


Figure 6.3 Framework for PMS measures. (De Toni & Tonchia, 2001, p. 52)

6.3 Analyzing performance

The main goal for measuring and analyzing performance is to give the top executives information about wanted activities and to back up and guide their decision making. Analyzing performance helps understanding what factors contribute towards the success of the organization, and help understand the undermining relations between the aforementioned factors. In best case scenario performance analysis makes the cause-and-effect relations visible between success and factors leading to it. (Rantanen, 2002, p. 7; Rantanen & Holtari, 1999, p. 14-15)

Systematic measuring and analyzing of performance holds great importance in directing and developing the organization. The information gained from the measurements is needed for setting goals, improving efficiency, analyzing results and motivating the workforce. Also, the information can be used on both operative and strategic levels, and if a formal system is introduced it can be used to help with the reporting activities between different actors. With systematic approach the reaction times to different changes is reduced, which in order increases the flexibility of the organization. On average, in organizations that

employ systematic approach to analyzing their performance the quality of decision made will be better and more consistent and the overall performance will be better than the opposition not employing this approach. (Rantanen, 2002, p. 7-8; Rantanen 2007, p. 13-15; Marr, 2003, p. 6-19)

6.3.1 Analyzing internal performance

Internal performance is a combination of productivity, efficiency, quality, flexibility, quality of work life and the ability to innovate, renewal. The analysis of internal performance is usually concentrated towards the lower organizational levels and aims to improve the factors that directly affect profitability and competitiveness. The metrics used for the lower organizational levels are usually non-financial. The metrics in use depend on the specific case and organization and should take into account the nature of the organization and its activities but also the starting point and goals set for the measurements. (Rantanen & Holtari, 1999, p. 9-15)

Measuring non-financial factors is a lot more complex and difficult than financial factors. The problems involved are usually about recognizing the metrics that support decision making, as well as recognizing the cause-and-effect relations between non-financial and financial dimensions. A problem can be also caused if measuring causes a conflict between units within the organization. (Rantanen & Holtari, 1999, p. 16)

6.3.2 Analyzing external performance

In its most basic form analyzing performance is about using financial metrics to analyze the information gained from bookkeeping. According to Rantanen and Holtari (1999, p. 14) external performance is often divided into three main categories between solvency, profitability and liquidity. The statistics in use can also include per share information. Table 4 shows some metrics used for external

performance measurement. It is worth noticing that the metrics are mainly financial.

Table 4. Metrics for external performance measurement. (Rantanen, 1999, p. 13-14)

Profitability	Liquidity	Solvency	Per share	Other
Operating profit	Quick ratio	Equity ratio	Earnings per share	Economic Value Added
Net profit	Current ratio	Net debt amount	Price/Earnings ratio	Development of turnover
Total profit	Funding resources	Gearing level for net debt	Equity/Share ratio	Development of profits
Return on equity			Dividend per share	Increase in personnel
Return on investement			Dividend per profit	Value added
				Total assets
				The relative market share

In addition to the above, any activities to measure customer satisfaction can be included. Surveys are often illustrative and useful, but they also require a lot of work or are just too expensive to be carried out. Another way to measure this is to harness the information from inside the organization. These metrics could include number of complaints and requested refunds.

Competitiveness describes the performance of an organization compared to other organizations operating in the same field of industry. The effect of measuring competitiveness is more about showing the success or downfalls of its activities rather than to give actual corrections to the strategic direction. Competitiveness can be measured, for example, by comparing market shares, by directly benchmarking to other organizations or just through comparing the total number of orders received.

6.3.3 Selecting metrics for performance measurement

When building an analyzing system a lot of attention has to be paid into the metrics chosen in order to achieve a system that works thoroughly. The requirements for a meter can vary according to the perspective it is viewed from. Table 5 shows the different requirements a metric has to fulfill.

Table 5. Requirements for a performance metric. (Rantanen & Holtari, 1999, p. 20; Sink, 1985, p. 68-69)

Requirement	Explanation
VALIDITY	The metric has to measure the exact target it is intended for
ACCURACY AND PRECISION	The results have to be accurate and precise.
COMPLETENESS, COLLECTIVE EXHAUSTIVENESS	The metrics used in the system have to show a balanced image of the organizations activities
UNIQUENESS OR MUTUAL EXCLUSIVENESS	Only a single metric reflects the specific feature being measured
RELIABILITY	The results have to be reliable
COMPREHENSIBILITY	The metrics have to be simple and understandable for everybody
QUANTIFIABILITY	The metrics have to be able to be quantified
CONTROLLABILITY	The metrics have to be controllable
COST EFFECTIVENESS	The benefits caused by the metrics has to be bigger than the costs it causes
RELEVANCE	The metric has to be meaningful for decision making
TIMELINESS	The metric has to show the present state

As well as fulfilling the aforementioned criteria the metrics should also have the characteristics as acknowledged by Hudson et al. (2001, p. 1101):

- derived from strategy
- clearly defined with an explicit purpose
- relevant and easy to maintain
- simple to understand and use
- provide fast and accurate feedback
- link operation to strategic goals
- stimulate continuous improvement.

As becomes clear from the lists of requirements presented here, there are multiple things to be considered when selecting any metrics for an analysis system. Obviously, there are some similarities between the lists, but in any case, the criteria presented offer a basic checklist in order to ensure the suitability of a given metric.

6.4 Reasons for possible failures

There are many things to be considered when planning and building a performance analysis system for an organization. In the planning phase most common failures should be acknowledged and avoided and as there is a multitude of research material available from the failed implementation projects it is possible to recognize the differences between the projects that fail and the ones that are successful. The results from various researches are similar and Hauser and Katz (1998, p. 528) for example list the main seven pitfalls as follows:

1. Time lag between a given activity and rewarding
2. Metrics which the employees can not influence correctly
3. Metrics that are difficult to control
4. Forgetting the goals
5. Selecting metrics that are completely wrong
6. Assuming that employees and managers do not have options
7. Overall narrow-minded thinking.

Hudson et al. (2001, p. 1103) also emphasize the meaning of quick and accurate feedback. Metrics that the employees are unable to influence through their own actions should be avoided with any analysis system. The metrics should notice the relations between different departments as well as units within an organization. Although the metrics do not have to be directly linked to goals, they should take into account the goals and strategy of the organization. When selecting the metrics the selection should be done so that it directs the employee's actions towards the benefit of the customer and the organization. The employees should also have power over the means which they use in pursue of these goals. Also, paradigmatic approaches should be considered. (Hauser & Katz, 1998, p. 518-521)

Neely et al. (1997, p. 1131-1139) feel that the main problem with many analysis systems used is the concentration to too few categories of performance. According to Hudson et al (2001, p. 1102) another major problem is the lack of connection between operative and strategic levels. Also, obsolescence is a factor as the

metrics should be kept up to date. Overall, planning a system for analyzing the performance of an organization takes time, and shortages with time as well as other resources can hinder the planning process. As a result from this other schedules may be stretched as well.

7 BRITISH AUTOMOTIVE INDUSTRY

The information for the present state of the British Automotive Industry (BAI) has been gathered from the report from the Society of Motor Manufacturers and Traders Limited (SMMT UK) as well as the report from the New Automotive Innovation and Growth Team (NAIGT).

The SMMT is a society that exists to look after the interests of the British Automotive Industry at home and abroad. It works closely with the member companies and acts as a voice towards the government and also seeks to promote the industry and its interests to the media and stakeholders. (SMMT, 2010)

The New Automotive Innovation and Growth Team, or NAIGT for short, is an independent actor that is involved with large number of senior people from Government Departments, Automotive Companies, universities, Trade Unions and centers of excellence. (NAIGT, 2009, p. ii)

7.1 History of the industry

7.1.1 1900-1950

The British automotive industry was born in the late 19th century when Daimler Motor Company was founded. The industry grew steadily and by 1910 the production in the UK was already at 14000 units. In 1913 Henry Ford opened its factory in Manchester and quickly became the leading producer with over 7000 units per year making the total units produced in the UK to 29000, more than double the total production amount just three years earlier. (Bloomfield, 1978, p. 204; Lewchuck, 1987, p. 122)

In 1914 World War I started and due to that the production of vehicles in the UK came almost to a halt. The strong pressure from the war did help the companies to develop mass-production techniques which were harnessed to vehicle production after the war. The First World War ended in 1918 and after that the automotive industry got into a strong growth rate. In 1932 Britain passed France as the largest car producer in Europe and between 1929 and 1937 the industry actually doubled its output from 238000 to 493000 units. (Bloomfield, 1978, p. 201)

In 1939 the World War II began and the factories producing cars were harnessed to serve the military machine. When the War ended in 1945 the British industry quickly came back to pace. Due to limited competition from Europe because of all the war damage, and the fact that the American market for personal cars was growing faster than the local industry could supply, in 1948 Britain became the largest car exporter in the world. (Dunnett, 1980, p. 31-34)

7.1.2 1951-1980

In 1955 the British automotive industry was hit hard by a major decline in the export of cars to Australia, North America and Europe. 1956 turned out to be even more disappointing with an overall output reduction of 40%. (Dunnett, 1980, p. 56-62) During the following years Britain's dominance in the automotive industry evaporated, first Germany overtook Britain in 1956 and France followed in 1960. One of the major reasons behind the decline was the costs per unit where most of the competition outclassed the British equivalents.

During those years many of the manufacturers were forced to exit the market or merge. In 1952 Austin merged with the Nuffield Organisation comprising of MG, Morris, Riley and Wolseley to form British Motor Corporation (BMC). In 1966 BMC merged again with Jaguar to form British Motor Holdings (BMH). In 1968 the British Government decided to broker the merger between then successful Leyland-Triump-Rover with BMH which was at that time in a deep financial slump. The newly formed British Leyland Motor Corporation (BLMC) became

the largest national car maker and was amongst the four biggest in the UK with Chrysler (UK), Ford and General Motors (GM) owned Vauxhall. According to Sir John Egan, the later chairman of Jaguar, this was the time when “*the standard performance for a British car company even by then was to do badly and go out of business*”. (Adeney, 1988, p. 194-251)

The British automotive industry was in deep trouble and by 1974 its position in Europe had dropped to sixth place. In the same year BMLC and Chrysler (UK) appealed for monetary help from the government but were denied. Instead, Chrysler (UK) received a loan and BMLC was set under heavy investigation which was to decide the company’s future. In the end it resulted in nationalization of BMLC as British Leyland (BL) and suggestion that further improvements in productivity and labor relations were needed. Later in 1977 Chrysler (UK) sold its interests in Europe to Peugeot-Citroen which later became Peugeot-Talbot. (Adeney, 1988, p. 277-318)

A detailed year by year time-chart prepared by Martin Adeney can be found as Appendix 4.

7.2 Present state of the industry

In its present state, the United Kingdom (UK) is home for seven volume car manufacturers. It is also home for nine volume commercial vehicle manufacturers, seven Formula 1 teams, several World Rally Car teams and more than 300 supporting companies specialized in the field of motorsports. Most of the top global components suppliers (19 out of 20) have a base in the UK and the market itself has more manufacturers producing specialist sports cars than any other country in the Europe region. As both the NAIGT and the SMMT reports state, the automotive industry is a critical sector for the UK. It accounts for nearly half a million jobs directly and more than 800 000 jobs rely on it. The UK automotive industry has a turnover of £51 billion (year 2007) and it supplies exports finished

manufactured goods worth £8.9 billion annually to over 100 markets, one eighth of all exports from the UK. (NAIGT, 2009, p. 4; SMMT, 2009, p. 4)

In the past decade, the British automotive industry has faced a major transformation from an industry with infamously turbulent labor relations and poor reputation to one that builds quality products and has a competitive level of productivity. As a result from this, the industry was, at least until the present recession, self-sustaining and profitable in the UK. (NAIGT, 2009, p. 5)

Before the present recession, the global automotive industry was faced with global overcapacity in production, inconsistent profitability amongst many companies as well as increasing pressure to lower the vehicle tailpipe emissions, especially the CO₂, HC and NO_x. As a response from Japan and Europe the manufacturers have been investing to modular design to increase productivity, improving the skill-levels of shop floor workforce, and also investing in flexible manufacturing technologies and new technologies that help reducing the aforementioned tailpipe emissions. (NAIGT, 2009, p. 4-5)

The industry in the UK is indeed faced with similar issues and although production levels do not function on an overcapacity within the UK, the industry is not completely immune to the global dilemma. Also, the local climate towards green thinking and therefore reducing the CO₂ is amongst the most rigorous in the world. (NAIGT, 2009, p. 5)

7.2.1 Development in production

Figure 7.1 shows the development of production of units in the UK and the respectable growth rate percentages for the last ten years.

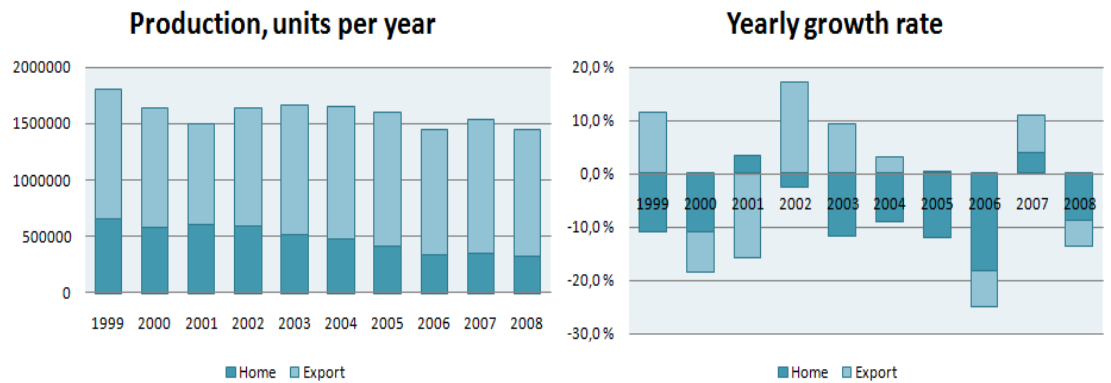


Figure 7.1 Production of units and the respectable growth rate per year in the UK. (SMMT, 2009, p. 8)

As the figures suggest, the development of industry has been fairly steady for the last ten years. Although a total drop of 19.6 % in production is recorded between 1999 and 2008 the yearly drop on average is only 1.7 %. It is interesting to notice that the drop of overall production has mainly affected the home market, where a total drop of 51 % is recorded between 1999 and 2008. As the share of production to home market has dropped so severely the share of exports has risen 22 % while at the same time the number of exported units has actually dropped 2 % from 1999. Overall, the exported units accounted for 78 % of all production in 2008.

When we broaden the scope of monitoring we find that the industry has in fact been quite turbulent. Figure 7.2 shows the total production of units for home and export markets for the last 28 years.

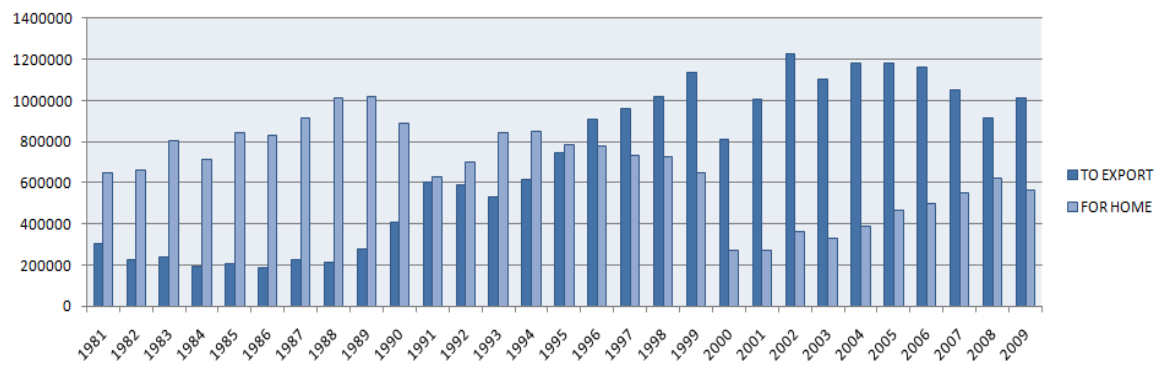


Figure 7.2 Overall production to home and export. (SMMT, 2010)

What becomes obvious from the figure is the total change of emphasis on the production to home and export markets. In 1988 the home market accounted for 82.5 % for all production but in 2001 it only accounted for 21.2 %. That is a complete share turn around within 13 years. This change is illustrated with even more clarity in figure 7.3.

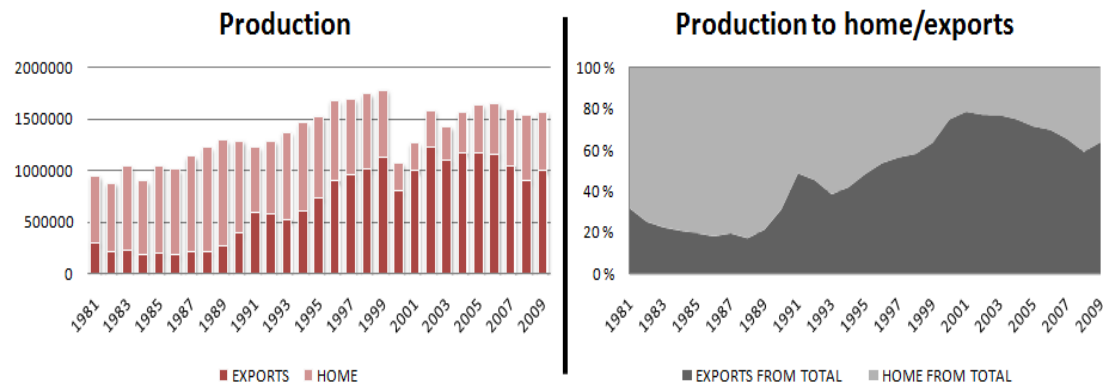


Figure 7.3 Total production between 1982 and 2009 and the share of exports. (SMMT, 2010)

In addition to the change of emphasis with production for home and exports, it is also easy to see the effect of global recessions to the production of cars in the UK. The growth of the overall production of units was quite rapid between the recessions in the early 1980s and 2001 however the recession in the early 1990s seems to have had only a minor effect. Even more surprising is the fact that the recent recession has only had a minor effect for the overall production as well. For the last eight years, it seems that the production has stuck to the steady yearly level of 1.5-1.6 million units.

The growth rates for home market and exports seem to follow each other with a steady pace with few exceptions. Figure 7.4 illustrates the yearly change of production for exports and for home market.

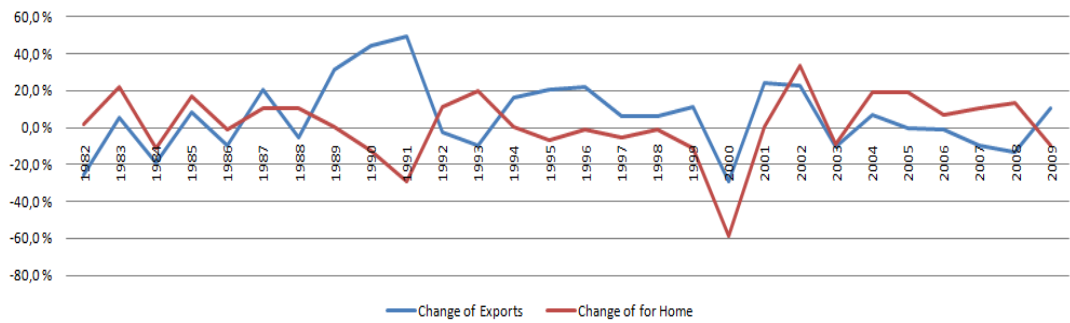


Figure 7.4 The growth change for exports and units for home market. (SMMT, 2010)

The first exception occurs during the recession in early 1990s and the second time it seems to occur with the recent recession that started in 2008. It seems that the production to export reacts to the economic fluctuations with a delay of 6-18 months, whereas the reaction from home market is a more imminent one. It is left to be seen whether this prediction holds true for the next 12 months. In this case the upcoming period should show growth for the home market and small reduction to exports shares.

7.2.2 Strengths of the automotive industry in the UK

The research carried out by NAIGT (2009, p. 29-30) shows that the industry leaders consider labor flexibility and quality of R&D resources to be the key strengths of British automotive industry. The leaders also saw governmental support, taxes and tariffs, and low barriers to exit as additional strengths to the industry. The overall strengths as recognized by these leaders were:

- the diversity of major manufacturers from abroad
- the flexibility of labor
- overall productivity
- the production scale of manufacturing internal combustion engines
- the competitive level of vehicle and powertrain R&D
- the presence of strong premium brands

The interviews revealed that the leaders especially saw the relatively low level of unionization and flexible working hours the employees are allowed to do as decisive strength for the industry when compared to the western European competition, not so when compared to Eastern Europe or BRIC (Brazil-Russia-India-China) countries. As mentioned before, the quality of R&D resources was also seen as a key strength although with a notion that the coordination on a national level could be improved. (NAIGT, 2009, p. 30-31)

In the same research carried out by NAIGT (2009, p. 30) the industry leaders recognized the industry weaknesses. The issues included the following:

- lack of headquarters of global volume manufacturers in the UK
- lack of skilled work force, both R&D and shop floor
- lack of adequate supply base
- high interest rates and strong currency
- lack of collaboration between manufacturers and Tier 1 suppliers
- the ambivalence from government towards the automotive industry, lack of long term strategic frameworks

Here the aforementioned strengths and weaknesses are gathered to one table (see table 6) according to the average scores they received. The factors were graded on a 5-point Likert scale with the five being the strongest.

Table 6. Industry leaders' perception of the UK's relative strengths and weaknesses. (NAIGT, 2009, p. 30)

	Average score	No of answers
Labor flexibility	3,94	16
Quality of R&Ds resources	3,71	17
Governmental subsidies	3,31	13
Barriers to exit	3,29	14
Taxes and Tariffs	3,27	15
Interaction with government	3,18	17
Labor productivity	3,06	17
Quality of local suppliers	3	16
Logistics and infrastructure	2,88	17
Skill level of workforce	2,78	17
Availability of local suppliers	2,53	15
Environmental regulation	2,44	16
Availability of skilled labor	2,41	17
Labor cost	1,94	17

As shown in the table, the labor costs, availability of skilled labor and also the environmental regulating were seen as the biggest weaknesses of the automotive industry in the UK. The interviewees overall agreed on the availability issue of skilled labor, however did not agree wholly on the nature of the skills in question. Most of the leaders claimed the issue was with mid-level management while some were stating the same about engineers, few even mentioned blue-collar working force. They all agreed that the underlining issue for this was in the fact that the most accomplished students and graduates opted to accept offers from finance and not the manufacturing sector. (NAIGT, 2009, p. 31)

7.2.3 Opportunities for BAI as recognized by NAIGT

The largest opportunity NAIGT recognizes is the fact that today 90 % of all passenger transportation needs are covered by cars. This is not likely to change any time soon, as the convenience and cost of personal transport is in favor of having one's own car, at least in the non-congested areas. This fact will remain even after a suitable alternative for fossil fuels has been found and implemented to use. Modal switching is seen as a possible congestion relief however it is not

scalable and therefore does not apply for any other areas than major urban environments. (NAIGT, 2009, p. 7)

The transition from present technology to low carbon solutions is seen as a big opportunity as well. NAIGT actually states, that if the industry fails to act in accordance and fails to develop the technologies, the whole industry will become even more dependent on overseas sources and might even risk chances of existence completely. Instead, if the automotive industry in the UK positions itself correctly high rewards will be available for grabs. (NAIGT, 2009, p. 7)

The opportunities also include possible future regulations from the government and the EU. As the present regulatory framework is already aggressive towards reduction of CO₂ emissions on the manufacturing and planning industry -side, it is reasonable to expect that complementing regulations for the demand-side will be introduced as well. On this front, the UK could provide leadership and create prototype markets for new technologies involved with low carbon emissions. In order to do so, following steps are involved:

- Producing cars using electricity as a primary source of fuel instead of fossil fuels;
- Electricity generation should be done without fossil fuels;
- An infrastructure with adequate capacity and density to charge and refuel the new cars has to be introduced;
- Alternative second-generation bio-fuels should be developed for vehicles requiring greater range than what electric alternatives can provide.

The aforementioned steps imply a medium term strategy (to 2020) to encourage advanced vehicle and ICE technologies and a long term strategy (to 2030) for large scale adoption of electricity as a viable alternative for fossil fuels. The NAIGT report also remarks that picking a winner technology at this state would be premature although politically attractive move. If the technologies are left to a

natural state of competition it is more likely for breakthrough innovations to occur. From the governmental incentive side it is good to understand that they should not be bound to any specific technologies, but to the desired results. In any other case in which the total carbon chain, sometimes also known as “Well-To-Wheels”, is not the object of monitoring the frameworks might be off-balanced and provide faulty information. (NAIGT, 2009, p. 8)

8 CASE 1: BMW

The Bayerische Motoren Werke AG, or BMW as it is commonly known as, was founded on 7th of March in 1916. It started off as mainly an aircraft motor manufacturer and as a result of war it enjoyed rapid growth. After the war the production of aircraft engines was banned and BMW turned its attention to built-in engines and rail vehicle brakes. It returned to build aircraft engines for the Second World War and was funded heavily by the government. (BMW, 2010)

In the end of the War the plant in Munich was nearly demolished by the air-raids. After the war, the factories were allowed only to produce spare parts for the US army vehicles and for use in agricultural equipment as well as bicycles. In 1945 the Munich plant was ordered to be dismantled as part of reparations. BMW however started building motorcycles and in 1950 18% of all production was already being exported. (BMW, 2010)

The 1950s were not a good decade for BMW, though. In 1959 this resulted in an offer from Daimler-Benz to restructure BMW for a limited time. The offer was rejected, however, and an individual shareholder named Herbert Quandt eventually led the restructuring of BMW while still remaining under independent ownership. (BWM, 2010)

8.1 The acquisition of Rover and Rolls-Royce

1994 is the connecting year for BMW and the automotive industry in the UK. This was when BMW purchased the deeply troubled Rover Group, which owned brands such as Rover, Land Rover, MG and MINI. The last of major British car manufacturers had been sold to foreign ownership. (BMW, 2010; Brady & Lorenz, 2005, p. 5; Wood, 2010, p. 60)

8.1.1 BMW buys Rover

At the time of the purchase Rover was owned by British Aerospace (BAe) and it was a heavy burden for its owners. Rover was essentially a non-core business of BAe's and the largest one at that. This was why George Simpson, the chairman of Rover at the time, was appointed to find a buyer for the complete auto manufacturing business. The board of BAe wanted a clean exit from the business and therefore a buyer for the whole business of Rover was the target. During that period Honda already owned 20% of Rover and was therefore the obvious choice to go to. Honda however felt that acquiring the British carmaker would have meant Rover losing its identity and instead of full bid offered to raise its ownership to 47,5%. The offer was included with a demand that Honda could appoint two members to join the board of Rover and, more significantly, add advisors for the rest of Rover executives. To BAe, this meant that they would remain backing 50% of Rover, while management control of the company would be handed completely to Honda. (Brady & Lorenz, 2005, p. 4-13)

During the same period BMW wanted to increase its overall capacity and was looking to widen its product base from the traditional models to cover four-wheel drive cars as well as small cars. Instead of using the BMW brand the company however wanted additional brands as the board felt that new branches could dilute the company's image. They felt that the best option would have been Honda, but the only realistically available option at the time was Rover. First, BMW offered to buy Land Rover from Rover but this was denied. As Land Rover was the only profitable part of Rover, and as BAe wanted to get rid of the whole business, the sale was deemed unreasonable. It was all or nothing. Later, BMW presented an offer worth £1,7 billion in total, including BMW taking over Rover's £200 million daily debts as well as its £700 million off-sheet commitments. (Brady & Lorenz, 2005, p. 7-17)

One of the major worries with BMW acquiring Rover was the reactions from the government. The Department of Trade and Industry (DTI) felt that there was a debt towards the Japanese carmakers as they had invested so much in to the UK

when the times had otherwise been dire. These investments had convinced other foreign companies to invest into the UK and were a definitive reason behind revitalizing the British economy. The BMW executives were concerned with the reactions from both the government as well as the public. As the UK was the third largest market for BMW the company felt that they could not afford compromising the image and risk losing market share. As a result, during the negotiations the BMW executives, namely Bernd Pischetsrieder, promised not to reduce the work force or close down factories. (Brady & Lorenz, 2005, p. 16-17)

The first step BMW did with Rover was to start promote the Land Rover marquee in the States. When Rover was initially bought BMW was delighted to find that a new small Land Rover model, the Freelander, was already in prototype phase. The prototype had been developed with 50-50 joint venture with Finnish Valmet, and its body was to be funded and manufactured in Finland before completion in Solihull, England. BMW quickly withdraw from the contract and Freelander was reborn as a complete Land Rover project. Although the model was successful it was not homologated to comply with the safety and environmental regulations of the US and therefore could not be sold in America. This error was corrected later in 2001. (Brady & Lorenz, 2005, p. 40-41)

Come 1995 Rovers car sales had plummeted 13% and it was the worst performing car manufacturer in Europe. BMW's master plan was to move all of Rover brands up market, close but not overlapping with BMW's own product base. The plan was not working. First, the belief was that this was due to the old Honda production methods. Although the production quality was good it was mostly due to mechanical quality rather than, what BMW felt was even more important, the distinctive and exclusive brand. As a proof, although Land Rover sales were growing in 1995 the overall Rover sales were still plummeting. (Brady & Lorenz, 2005, p. 52-57)

In 1995 Wolfgang Reitzle took over the chairman position of Rover. Reitzle, who had always argued that BMW should get rid of Rover and concentrate on Land

Rover, got quickly on pace and started targeting the issues with the brands. The first idea was to bring back the marquee of Triumph to replace the 200 and 400 models in the small car segment. The second idea was to replace the existing small cars with MINI products which would be a stand-alone brand. The car that was eventually produced was developed on BMW's earlier small front-wheel drive City car prototype, which had failed to go to production. The strategy for MINI was to pitch it just up market from Volkswagen's mass market New Beetle. (Brady & Lorenz, 2005, p. 59-61)

In the end of 1996 Walter Hasselkus replaced Reitzle as the chairman of Rover. Hasselkus' strategy was clear: recreate two premium models by retracting Mini from Rover and repositioning of Range-Rover as the "*Rolls-Royce of off-roaders*". To promote and ease the re-entry of Rover to the American market BMW planned to enter into a joint venture with Chrysler, who already had a wide scale distribution and manufacturing infrastructure in place and who needed a partner to enter markets outside of America. The venture was effectively blocked by DaimlerChrysler. (Brady & Lorenz, 2005, p. 80-85)

As well as widening the product offering Hasselkus was searching to improve efficiency within the Rover Group. The means to this was to change the working processes drastically, but this could not be done without the consent from the workforce. The problem was that Rover had previously, in 1991, negotiated a deal with the unions that guaranteed the jobs for 39000 workers for life in exchange for increased flexibility. Hasselkus wanted to transform productivity, introduce quality programs, streamline the workforce and for this to happen the old deal would need to be terminated. The parties came to an agreement in 1997 when a new three-year pay deal was announced. (Brady & Lorenz, 2005, p.89)

As the millennium was approaching the sterling pound was getting stronger and stronger. This was bad news for Rover as it relied heavily on exports to mainland Europe. BMW tried to protect Rover from the currency effects by forward currency purchases, but this was a short term solution in any case. Another

preventing measure was to increase the usage of imported parts from Europe, but despite this Rover was failing to meet the sales and return targets BMW had set for it. Also, when Rover was suffering the BMW sales in the UK were flourishing. This fact was raising awareness within the BMW Group board and the case for getting rid of the “*English Patient*”, as Rover was then nicknamed, was gaining momentum. (Brady & Lorenz, 2005, p. 106-108; Wood, 2010, p. 60)

Selling Rover was not an easy task for BMW. Due to governmental regulations, if a company fails within two years after it has been sold, it is considered to have been in an insolvent state and the previous owner is held responsible. This meant BMW had to find a buyer that would manage to keep Rover going for full two years, so that BMW would be free from all responsibilities towards it. A realistic buyer candidate appeared in the form of Alchemy, a private equity firm. The deal was prepared for long time, but in the end, another buyer was chosen in the form of Phoenix Consortium because it offered better terms for BMW. In the end, Rover was sold for the nominal price of £10, but this deal did not include MINI which BMW was keen to keep under its ownership. (Brady & Lorenz, 2005, p. 153-193; Wood, 2010, p. 60)

8.1.2 BMW buys Rolls-Royce

While Hasselkus was still managing Rover, Pischetsrieder was completing his earlier product base idea. As BMW then owned brands like Mini, MG, Land Rover, BMW and Rover, the only place uncovered was the high end of the market. To this place Pischetsrieder wanted to add Rolls-Royce. In early 1998 Vickers, the then owner of Rolls-Royce, due to its conditions, was forced to sell the marquee. The bidding war between BMW and Volkswagen was eventually won by Volkswagen. At that time BMW was however supplying engines to Rolls-Royce and Bentley and they warned Volkswagen they might stop the supplies if Volkswagen did not let go of the marquee of Rolls-Royce. Volkswagen considered it could not develop an engine quickly enough and eventually Rolls-Royce and Bentley were split. Volkswagen kept Bentley, the Crewe facilities and

the Rolls-Royce brand rights until 2003 when the rights were handed over to BMW. (BMW, 2010; Brady & Lorenz, 2005, p. 94-96)

In 1998 the organization continued growing by acquiring the rights for the name of Rolls-Royce for cars from Volkswagen Group. Although BMW was denied from using the brand rights until 2003 the development process for the new products started right away. Later, in 2000, as mentioned in earlier chapter BMW sold Rover for Phoenix Consortium and shortly after this Land Rover was sold for Ford. (BMW, 2010)

8.2 The Implications

BMW Group and its managers made a major error in choosing a so called Laissez-faire management approach when they acquired Rover Group. With hindsight this is an easy thing to be stated, however during the time there has to have been good reasoning in doing so. Perhaps Pischetsrieder with his colleagues figured, that only thing lacking from Rover was investment, that the company was indeed doing correct things in orderly fashion, but just lacked the money needed to be successful. In this case, a sensitive approach would be understandable. However, as the case was, Rover was in deep trouble and had been for years already. It was a huge money spender for British Aerospace and was not going to change its ways just with more money poured in.

When BMW eventually acquired the firm the atmosphere within the German part was too optimistic. Eventually this was notified as progress was slow and Rover struggled to change its ways. The cultural differences did not help either. The German engineers found the Brits to be arrogant, full of egoism and having a no-risk attitude. Coming from a standardized way of making things, an organized culture, the Germans saw the British way of doing things as the biggest obstacle to overcome in making Rover profitable again.

Even if BMW cut jobs, restructured the organization and helped Rover to develop new cars it failed to realize that the brand was gone. This combined with the fact that Rover cars were similar sized to BMWs own 5-series and were expensive to build meant that they would have to have been sold for a premium price. For Rover to become a profit maker it would have needed to manufacture and sell a lot more cars than it did, and trying to be a premium product meant the sales figures were not easy to produce.

When BMW finally realized its errors it was already too late, and what they did next was, to use a common poker-term, to chase after its money. This means that the player has invested so much in the game that he/she/it becomes unable to let go even if the end results are there to be seen.

It was not all losses for BMW, though. It had managed to acquire MINI and Land Rover, which were highly respected brands, and Land Rover for one was profitable with a big margin. When BMW developed its own X5 from the technology acquired from Land Rover it had its product range that covered all the corners. In the low-end of the market it had MINI, which has been a success since it launched in 2001, then the 3-series, 5-series and top-ranging BMW 7-series, and for the high-end market it had Rolls-Royce. Also, after it had developed its own four-by-four vehicle, the X5, and it had managed to become a well-respected competitor to the Land Rover models, BMW was now able to sell Land-Rover.

9 CASE 2: TATA MOTORS LIMITED

Tata Motors Ltd., a part of the Tata Group, employs 24000 employees and has consolidated revenue of \$14 billion (2008-2009). It was established in 1945 and started building commercial vehicles in 1954 in collaboration with Daimler-Benz. Today, the company is the largest automobile company in India, is the second largest manufacturer of medium and heavy buses and in the top five manufacturers of medium and heavy trucks. Tata entered the market for personal vehicles in 1991 and in this field ranks the second place in India. (Tata Motors, 2010)

9.1 The acquisition of Jaguar and Land Rover

In June 2008, Tata Motors completed its acquisition of Jaguar and Land Rover for 2.3 billion dollars from their previous owner, Ford Motor Company (Reuters, 2008). It is interesting as for why Tata acquired these iconic British brands. The most likely reason for this acquisition is a new strategy for Tata Motors and the new markets made available for Tata. The fact Jaguar Land Rover already had a global infrastructure for logistics, part supplies and car dealerships is attractive factors for a large company that have not had much car related business outside of India previously. Not only are both of the brands well established all over the world, but especially in the Europe region and the United States, both interesting markets for Tata. Also, the new brands and products broaden the offering of Tata Motors, which has so far been mostly providing trucks, buses and cars at the cheaper end of the market. Outside of India the company is perhaps best known because of the super low cost Tata Nano, shown in figure 9.1, which is currently being sold in India for 100,000 rupees, the equivalent of £1450 (Tata Motors, 2010).



Figure 9.1 Tata Nano. (Tata Motors, 2010)

As both Jaguar and Land Rover are up-market luxury brands it is unlikely that any direct linkages with the present Tata model range will be presented any time soon. The technology used and developed by Ford must also be interesting for Tata, which has not had a high-technology approach before.

When it comes to the history of Jaguar and Land Rover, Tata wants to refrain from repeating the mistakes Ford did with Jaguar during its ownership. Ford purchased Jaguar in 1989 and during its ownership it tried to establish the brand for the mainstream audience first by introducing the S-type in 1998 and then with the X-type in 2002. They are essentially the same car, the first with front-wheel drive and the second comes with all-wheel drive. Both of these models are heavily based on the Ford Mondeo from the same era and customers quickly realized this. As means of reducing the overall costs per unit this was a good idea however the models were too much alike and the customers failed to see the reasoning for the difference in price. Combined with Jaguar's prestigious history the new cheaper direction left the customers confused and during Ford's ownership the sales never reached a level where the brand would have been profitable.

9.2 The implications

Tata's purchase of Jaguar and Land Rover seems to have been a great investment for the Indian car manufacturer so far. Although it has been merely two years since the acquisition was completed it is already clear Jaguar is once again doing

well. Its new XF, XK and XJ models have been praised in the automotive press, they have won various awards for excellence and the new XF for one has been producing respectable sales figures since its release in 2008.

With near hindsight, it is clear that Ford managed to shape up Jaguar for the sales and did a good job at that. Perhaps this was for the very same reason BMW needed to find a buyer that could manage to keep Rover going for two years, the Insolvency Act which states that if a company fails within two years of its purchase it is considered to have been in an insolvent state during the acquisition and the previous owner is held responsible. Ford managed to do with Jaguar what BMW failed to do with Rover though, to manage the culture differences, implement better practices to development and manufacturing, and develop a fully new product line to ensure future success. Perhaps this was due to the fact Ford had long traditions doing business in England, they knew the people beforehand, and the cultural differences were minute, if ever existed at all. In fact, Jaguar Land Rover was in such good shape that in December 2009 it already posted profit for its owners, (see Reuters, 2010) which is a remarkable achievement for such a short period under Tata's ownership. This is partly understandable when we consider that Tata has great experience in cost cutting and lean management, all lessons learnt from the cheap car market they have been providing products for in the highly competitive market in India.

What will happen with Land Rover still remains a mystery. Tata has been very careful in making any changes to the company so far, and is perhaps wise in doing so as it has been the sole four-by-four manufacturer posting profit since the early 90s. Lately Land Rover has announced about launching an all new small Range Rover which will complement the already wide product range, and is the first completely new model under Tata ownership. As the production of this car has been granted £27 million grant from the UK Government it will be produced at least in the Halewood plant.

10 CONCLUSIONS

The conclusions made from the research are presented in two sections: first how the theory comes together and conclusions from that and on the second part are conclusions on the British automotive industry using the theory framework as scope.

The reason for selecting the specific areas of theory comes down to the very context in subject. The combination of the lack of innovation with low productivity coming together with bad managerial approaches in decision making and managing organizational change has resulted in low overall performance of the organizations and the field of the industry in the UK as whole.

10.1 Theory combined together

The theory, as presented in this thesis, comes together in the way shown in figure 10.1. Considering the context in hand, organizational performance relies and builds on the products or services produced, but it also depends on the management approaches as well.



Figure 10.1. Organizational performance builds on the managerial aspect as well as the product or service it produces.

The starting point for building organizational performance has to be in productivity, quality and continuity of decisions made. This has become apparent with the results from researching the industry in the UK as whole, as well as the cases presented. When productivity and decision making are on a stable ground the organization can move on towards more complex matters, which require organizational flexibility and an empowering culture.

The flexible stage comprises of managing innovation and change, which are, on a very basic level, similar actions as both are about creating and managing something new that brings within an improvement to whatever the situation is currently. The context, however, is different. Innovating is a single process within the organization that is supposed to create a new, better product, service or process, and therefore the process can be chopped down, be standardized, and then can be managed with relative ease. Organizational change however involves a varying degree of anxiety and fear, things that at least in theory should not exist anywhere near innovation. Innovation management therefore is about managing the improvement process of a product or a service, whatever the organization

provides, whereas change management is about improving the whole organization itself. Both require a nurturing atmosphere, a culture where people feel freedom and are not bound by overwhelming rules and regulations, but can present fresh ideas in order of improving given things.

Both of these factors are essential for the overall performance and success of an organization. Innovating helps bringing up, for example, new products and processes that bring in the money – change improves the possibility to adapt to changing environment, adds flexibility and possibilities to maneuver the organization according to given situations.

Performance management then is the combining force between the two aforementioned parts. Managing performance is to thrive for improvements that have a positive effect on the outcomes of the organizational processes and/or quality of work life. The biggest risk with performance management is to get tangled onto something too specific, to get distracted from the big picture. Choosing what to monitor and how to monitor are difficult tasks as unbalanced analyzing system will distort the overall performance results and can in worst case scenario drive the whole organization off of its strategic course. The term “*performance management*” sounds mighty, but in the end, it is all about managing the small details that have an effect to the overall result, be it direct or indirect.

10.2 The automotive industry in the UK

Innovation within the automotive industry in the United Kingdom has not been amongst the most deployed strategies when it comes to the products themselves. Apart from the early beginnings of the industry in the start of 20th century, the industry itself has relied much on already established technologies and processes. For example, the early production processes were adopted largely from the mainland Europe and especially from North-America and Ford, to be precise. When Ford opened its first factory in England and quickly became the single

largest unit manufacturer with unmatched productivity per employee, it proved its methods for mass manufacturing, which then quickly became industry standards.

This is not to say innovation did not occur at all in the UK. In fact, after the World Wars there were many small niche manufacturers in the UK as there are nowadays, and innovative approaches were presented in whatever they built. When it comes to the major manufacturers, though, productivity was the key success factor and low cost per unit was essential for success. Of course there was small improvements done but not in a continuous manner and especially not as chosen strategy. Differentiation, a major factor for innovation, played a part as well, however not nearly as big part as it plays in the business today.

When we consider the effect of the World Wars, they were indeed boosting factors for the industry as they, as an aftermath in both occasions, mostly hindered the competitors and boosted exports from the UK. This was especially apparent in the case of competitors coming from Germany. Also, during the Wars automotive factories were usually harnessed for the use of the War-machine and this way they usually did not so much acquire new technology but gained useful information on manufacturing processes which were then implemented to use after the Wars.

The government and its actions along the years have been large factor for the automotive actors. Surely, the regulations and legislations are same for all players in the field within the given marketplace however the unbalanced effect these rulings have towards the industry is, to say the least, distracting. Surely, the government actions to nurture the industry along the years have been a confidence booster for the domestic manufacturers as well. This is a major factor behind the lack of flexibility that existed up until recently within most, if not all, of the major organizations. BMW Group, for example, has suffered from the War and the regulations after the Wars, and yet it managed to transform its operations and strategies to adjust to whatever the current situation and conditions were. Somehow, the difficulties the German rivals have endured have taught them precious lessons about change and how to manage it. This however, was not so

apparent close to the millennium when BMW acquired Rover and failed to manage it properly. BMW had no earlier experience from acquiring companies from overseas and in this case the company acquired was a large one which basically doubled the size of the company.

The close follow-up approach as adopted by the British government had created a false sense of security within the big organizations, such as Rover was. If they made a mistake the government was there to back them up against the trouble. If the government had not been following so closely and had been as keen to pamper the manufacturers, then maybe there had been a different culture towards change. This is a major accusation and some will definitely disagree, even with hindsight to history. Nevertheless it is a conclusion that has to be drawn, especially when looking at the current situation in the United States of America and the Big Three. There has to be serious consequences and fears for the ones who are stuck to their old habits to be able to change for real.

If we could strip down or make the governmental actions more predictable they would not give additional trouble for the manufacturers. The decision making processes should be rationalized, they should not be made on a “*gut-feeling*” and they should be based on a system that would not be so dependent on the person and the situation. This obviously, is not possible in the current world and would also pose new threats and fears. Creating a decision making system with no dependence on situation and people would require fully computerized systems, which then pose various information security related and not to mention ethical issues.

When we take a look at the innovation process and the factors that contribute to it (see page 15, figure 2.4) and consider what we know about the automotive industry in the UK so far, we can draw some more conclusions on why there has been relatively low level of innovation within the products themselves. Most of the factors promoting innovation have been lacking from the industry approaches. As the organizations did not have clear improvement strategies but were

concentrating on productivity itself the lack of freedom has played a considerable factor. Also, the fact as mentioned earlier of government keeping a relatively close eye on the big players in the industry has been a hindering factor as well.

As can be seen from the previous chapter about how the theory comes together, we understand that productivity is one of the most important building blocks when organizational performance is under observation. Although the emphasis in productivity, this has still been one of the major obstacles when it comes to the major manufacturers in the UK up until recently. BMW, for example, was appalled by the level of productivity of Longbridge, Rovers largest factory, when the acquisition was made. The reason for the low productivity was deemed to be in the large size of the factory, old technologies in use, and to bad choice of production methods. It was one of the obstacles BMW Group had to overcome when trying to revival the suffering company.

Moving on with the topic we face decision making, which has been and will be a factor with every business ever existing. Especially groupthink, which is a major factor when no systems are used, has posed many problems. The Case of BMW Groups acquisition of Rover Group is a very good example of the troubles related to decision making and examples of what are the results from bad decision making. With hindsight, it is easy to claim that the hands-off leadership approach as practiced by Pischetsrieder, the then chairman of Rover as appointed by BMW, was disastrous for both BMW and Rover. Although, the lack of investment had been proven to have played a major factor in the poor performance by Rover until then, pouring money in to the mixture without implementing any leadership practices in a situation which clearly is a major transition phase for both of the companies cannot result in as success. In a situation, where the clashing company cultures are as different as they were in this case the importance of leadership, the continuity of the decisions made and overall management of the situation is of utmost importance. As a side remark it should be mentioned that as decisions reflect the people making them, adding systems to the formula helps to reduce variability and increase continuity of decisions made, which in terms increases the

overall quality of decisions. BMW did use group decision making sessions when the board was considering strategies for the organization. It is then even more surprising to realize how free Pischetsrieder was left with his Laissez-faire approach with Rover. It has to be the end result of strong persuasion towards groupthink. If all the problems were as visible as the research claims, there should have been no doubt a more hands-on approach chosen.

Considering the change paths shown in chapter 5.3, we can see the Pischetsrieder had chosen the incremental realignment option of adapting. He wanted to keep Rover and BMW separate of each other and give Rover a chance to do what it had not been able to do before because of the low level of investment in it. In a situation in which one big company has acquired another large manufacturer, it has to be understood that this is a too precautious approach. Eventually the path of change formed from failed adaptation to Reconstruction followed by Evolution. This is something that should have been done immediately after BMW acquired Rover. As Rover was already in a bad situation the lag between the acquisition of the firm and adding corrective measures grew too long. This eventually led to huge losses and mass exodus of managers.

10.3 Future prospects

It is indeed a fact, that the automotive industry in the United Kingdom is still a very important part in the nation's economic field. As it employs directly over half a million people, and although SMMT estimates that 800 000 jobs would rely on it, it is safe to say that more than a million jobs are affected indirectly. As this is the case the government has to take into account its relations towards this field.

The recommendation this thesis presents for the government of the United Kingdom is to turn its emphasis on helping the Research and Development field in general. The government should not focus solely on the automotive industry any more, but should make the environment to such that it promotes innovation and R&D of new technologies. This would promote manufacturing cars in the

UK, which is especially important in this current situation, where most if not all of the significant car manufacturers in the UK are under foreign ownership. This is why the government cannot just keep supporting the companies directly, because in the long term, the means might fail to promote employment directly in the UK. Investing into the small niche car manufacturers is an option as well, however the global market for such products is still remaining small and growth has to be pursued elsewhere.

One option to promote the industries in the UK, and not just the automotive one, would be to turn the whole country into a prototype market. This will be a difficult thing to do, it would take a long time to happen, there are major risk factors involved and lots of obstacles would need to be overcome for it to be successful. However, the opportunities and gains are many, though. For example, if the UK manages to implement a working infrastructure for the production and usage of renewable energy forms, the environmental gains are innumerable.

By focusing and investing heavily into the development of the R&D industry in the UK, and promoting UK as a prototype market, it would make the market interesting for the companies abroad as well. This would lure in investments and more jobs inside the UK. This would, in long term, promote immigration of knowledge, which in terms would accelerate and improve the process again.

The fact that producing internal combustion engines (ICEs) in the UK is also a big field, just stresses the fact that the industry in the UK should be the one investing into the R&D of new engines and especially ones that use renewable energy. If this field fails to act towards producing an alternative for the ICE there is a real threat that the whole field of industry will become obsolete.

The automotive industry is moving towards a mass-niche manufacturing of products, especially when considering automotive industry. For the major car manufacturers this means that the product portfolios expand and more modifiability and modularity is added to the products so that they can be tailored

to every customer's specific needs. In the early 20th century Henry Ford is often quoted to have said that the customers could have the T-model Ford in any color they preferred, as long as it was black. Those days are long gone. Nowadays customers can opt to have their cars in any possible color combinations with various finishes. Some manufacturers even offer their cars without paint with only a lacquer coating on top of the raw material. As high build quality has already become an industry standard and one of the must-fulfilled critical success factors, most of the manufacturers have recognized that design of the products is very important and an essential part of overall quality and differentiation. It is not just about mechanical quality any more, that things do what they are supposed to, but as well about how the finish and feeling of materials affect the emotions of the customers. Cars these days are not just to transport people from A to B, but they are objects of desire, jewelry for the modern man and woman, and the way they make the person feel plays a major part in the overall success of the product itself. This is not a small factor in the present climate of environmental thinking and with the EU proposing strict limits to emissions it is a nurturing environment for products like the Toyota Prius Hybrid. Even Bentley has produced a bi-fuel engine to fight the emissions, and Ferrari and Lamborghini are in development of hybrids for the same reason. It has also been stated that originally BMW acquired MINI for this very reason, to bring down the average CO₂ output of the whole organization, and that one of many reasons to get rid of Rover was because the cars were big and CO₂ emissions were high.

Considering the critical mass of production and with the current mass in the niche and specialist car manufacturers in the UK, there should be more collaboration and co-operation between them in order to moving towards the global markets outside of the UK. The list of current niche car manufacturers includes the following:

- AC CARS
- Ariel
- Ascari Cars

- Bristol Cars
- Caterham
- Ginetta Cars
- Marcos
- Morgan
- Noble Automotive Ltd
- TVR

If there indeed were more collaboration between the aforementioned brands they would have enough resources to build cars with more production mass and would have the chance to go abroad. The reason most of them have chosen to stay small is that the niche cars are treated differently from the mass produced ones. As the production levels are low the cars are treated as kit cars and therefore they do not have to pass, for example, safety tests. Also, the reasons should be compelling for the co-operation to occur. The brands shown above are small, mostly privately owned, and often ran by the owners and founders themselves. If the co-operation were to happen, the very same people would need to let go some of the control they have, they would need to make compromises and would have to essentially change the way they do business. As proven in the early chapters in this thesis that is a major obstacle to overcome. To reference the Greiner Growth Model shown in figure 4.5 in chapter 4, the companies would essentially need to mix phases 2, 3 and 6 together, and then move on to phase 4.

One option where this future prospect could occur would be government aided specialty R&D collaboration in which the companies could co-operate and share costs without compromising too much of their own resources, for example in the field of engine and powertrain development. These specialty groups would be government funded to a degree, ran as independent companies and would have a board of directors from the various niche manufacturers and actors in motorsport companies. In sense, as the UK is the clear centre for motorsport development globally, there already exists a basis for this.

The manufacturing in the premium car segment is well covered in the UK. The following manufacturers are currently producing cars in this segment in the UK:

- Aston Martin
- Bentley
- Lotus
- McLaren
- Rolls-Royce
- Jaguar
- Land Rover

These manufacturers are important for the future of the industry in the UK as they have already a somewhat large manufacturing capacities and market possibilities. From the presented manufacturers five are completely under foreign ownership and the other two (McLaren and Aston Martin) are partly owned by foreign stakeholders. McLaren has lately announced it will be repurchasing its stocks back from Daimler AG and restoring domestic ownership completely by 2011.

Considering the high cost of work force in the UK, the availability of suppliers and the governments' sympathies towards supporting R&D, it would make sense for the overall industry to produce and maintain an upper-class approach. This means that the industry would focus on developing innovative products and producing cars that are in premium classes. Also, acting as a prototype market for innovations would mean more money flowing in from abroad and additional benefits such as environmental gains with products, for example, like electric cars.

Obviously, a basic production base of mainstream models such as the ones produced by Nissan, Honda, Toyota, Vauxhall and Ford is essential in order of maintaining the critical mass for the industry. However, the emphasis should still be pointing towards producing more expensive cars on average. This is the only way the industry as whole can compete globally with ones that have cheaper labor

and overall production costs per unit will be lower. The emphasis on innovation and quality will overcome the overt concentration on productivity.

If the industry acknowledges the fact that there is only room for so much capacity globally and that the UK automotive industry is not any more competitive in the class for the cheapest products then the transition can begin towards a class, where the UK can be competitive and possibly set the framework for the competition.

11 SUMMARY

The overall low performance of the automotive industry in the UK in the late 20th century cannot be pinned on one or two things that would clearly show where things went wrong. It is a multitude of things coming together and people making late, bad or just inconsistent decisions on various things from products to government legislation. These issues with decision making ended up to the three major issues recognized by most of the research surrounding this field, the low productivity of the manufacturers, bad build quality of the products and eventually inflamed relationships between the labor unions and the industry field itself.

The present state of the industry is not bad, though. Given the latest recession the performance of the manufacturers has been acceptable and it has improved greatly from what it was during the last century. Although the premium car market is an essential part of building the British' future success, as envisaged by this thesis, the current recession will still no doubt hit it hard. When the market goes down the companies need to invest. And to ensure success when the market comes back up and continues growing the industry must be on right tracks. These tracks are not towards mass manufacturing of cheap products in the UK. The UK is not shaped up to compete with manufacturers coming from Asia, India or even America, for example, but will need to compete in segments where the margins are larger.

The following question is about what the car manufacturers should do then. If the government manages to turn the atmosphere in the UK into one that promotes overall R&D and innovative culture, then it should be an attractive option and a logical step for many of the car manufacturers to move their R&D departments, or at least some parts of it, into the UK. This is not a light claim to be stated. Obviously this poses a big threat towards the employment and spending in the other countries where the manufacturers currently do their R&D, and it would be foolish to claim that this would be allowed to happen without any opposing

reactions. With any action there is a reaction, and the competing governments would without a doubt react. But how and on what scale remains unanswered. The speed in which the reactions happen on governmental level are usually slow and when the need for change in this case would be observed then it could be already too late. Some of the governments would not dare to react with the big risks involved and focuses being elsewhere in the present economic situation.

The summarizing recommendation as posed by this thesis is to invest in R&D and the premium automotive segments. With this segment the critical mass of production is lower meanwhile the unit margins are higher in comparison with cheaper segments. As these are also the segments where most innovations are usually presented, it also backs up the general concentration on R&D. The fact remains, that United Kingdom is just too expensive to compete effectively in the cheaper end of the market with manufacturers coming from, for example, India.

As the fact remains, that all of the current major automotive manufacturing companies in the UK are either partly or completely owned by foreign stakeholders, this should not be a worrying matter. According to some researches, foreign ownership is in fact an improving factor towards the productivity, profitability and overall performance of a company. Surely there is a threat presented by the lack of domestic ownership, but if the local conditions and the legislative environment can be shaped into one that nurtures the culture of R&D and makes manufacturing and developing cars ideal, then there should be no fear of production moving abroad.

Considering the recommendations of this thesis, the future prospects for the automotive industry in the United Kingdom are not as grim as they might first appear. If the industry chooses to accept the fact the UK is a viable manufacturing location for all but the cheapest, Tata Nano rivaling, cars, then there should be no problem. For example, McLaren Group has already announced its plans of restoring domestic ownership by the end of 2011, and also that it will produce a three car product range by 2012. This fact alongside the fact that the UK is the

definite centre for motorsports development globally: most of the teams currently competing in the Formula1 and World Rally Car series are developed and built in the UK. These facts are just confirmatory proofs of what the current level of R&D and innovation really is.

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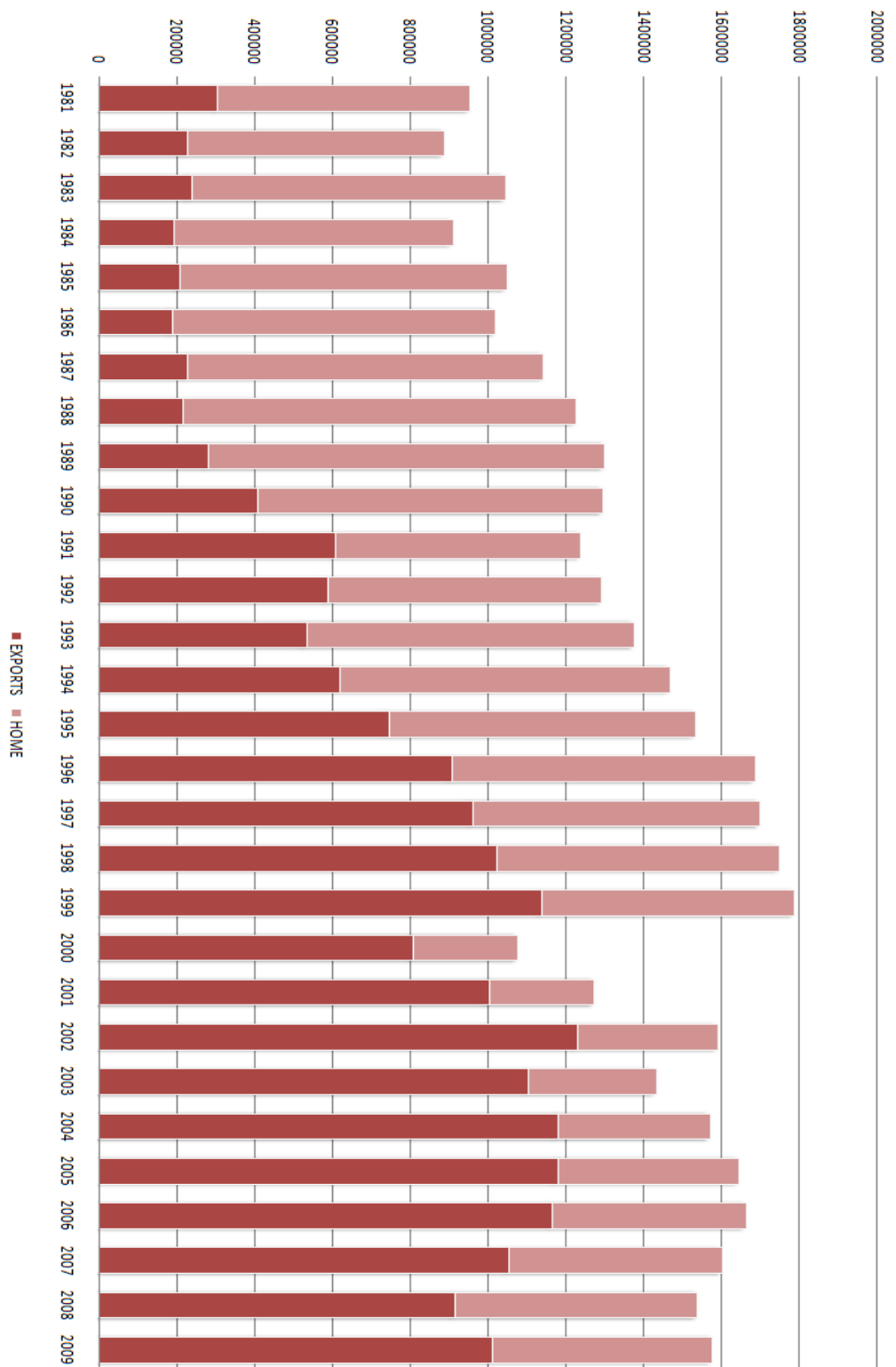
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Appendix 1/4. Overall automotive productivity in the UK.



Appendix 2/4. The yearly production numbers of automotive industry in the UK since 1981.

YEAR	TOTAL	CHANGE %	FOR EXPORT	CHANGE %	FOR HOME	CHANGE %
1981	954650		304678		649972	
1982	887679	-7,0 %	225865	-25,9 %	661814	1,8 %
1983	1044597	17,7 %	237376	5,1 %	807221	22,0 %
1984	908906	-13,0 %	192213	-19,0 %	716693	-11,2 %
1985	1047973	15,3 %	207671	8,0 %	840302	17,2 %
1986	1018962	-2,8 %	187556	-9,7 %	831406	-1,1 %
1987	1142683	12,1 %	226197	20,6 %	916486	10,2 %
1988	1226835	7,4 %	213870	-5,4 %	1012965	10,5 %
1989	1299082	5,9 %	280729	31,3 %	1018353	0,5 %
1990	1295610	-0,3 %	405769	44,5 %	889841	-12,6 %
1991	1236900	-4,5 %	605385	49,2 %	631515	-29,0 %
1992	1291880	4,4 %	589290	-2,7 %	702590	11,3 %
1993	1375524	6,5 %	532876	-9,6 %	842648	19,9 %
1994	1466823	6,6 %	618681	16,1 %	848142	0,7 %
1995	1532084	4,4 %	744611	20,4 %	787473	-7,2 %
1996	1686134	10,1 %	908212	22,0 %	777922	-1,2 %
1997	1698001	0,7 %	961911	5,9 %	736090	-5,4 %
1998	1748258	3,0 %	1020727	6,1 %	727531	-1,2 %
1999	1786623	2,2 %	1138477	11,5 %	648146	-10,9 %
2000	1076656	-39,7 %	807841	-29,0 %	268815	-58,5 %
2001	1273333	18,3 %	1003460	24,2 %	269873	0,4 %
2002	1589217	24,8 %	1228362	22,4 %	360855	33,7 %
2003	1431366	-9,9 %	1104116	-10,1 %	327250	-9,3 %
2004	1570090	9,7 %	1179551	6,8 %	390539	19,3 %
2005	1644289	4,7 %	1178748	-0,1 %	465541	19,2 %
2006	1661956	1,1 %	1163771	-1,3 %	498185	7,0 %
2007	1602036	-3,6 %	1051658	-9,6 %	550378	10,5 %
2008	1538685	-4,0 %	913479	-13,1 %	625206	13,6 %
2009	1576001	2,4 %	1010034	10,6 %	565967	-9,5 %

Appendix 3/4, The monthly production numbers of automotive industry in the UK since January 2000. 1/3

YEAR	MONTH	TOTAL	CHANGE %	EXPORTS	CHANGE %	HOME	CHANGE %
2000	1	145732		95127		50605	
2000	2	161010	10,5 %	94515	-0,6 %	66495	31,4 %
2000	3	183722	14,1 %	121752	28,8 %	61970	-6,8 %
2000	4	123852	-32,6 %	85889	-29,5 %	37963	-38,7 %
2000	5	150627	21,6 %	103786	20,8 %	46841	23,4 %
2000	6	155263	3,1 %	99734	-3,9 %	55529	18,5 %
2000	7	125552	-19,1 %	69925	-29,9 %	55627	0,2 %
2000	8	73566	-41,4 %	40933	-41,5 %	32633	-41,3 %
2000	9	132660	80,3 %	76120	86,0 %	56540	73,3 %
2000	10	130452	-1,7 %	91897	20,7 %	38555	-31,8 %
2000	11	150666	15,5 %	103594	12,7 %	47072	22,1 %
2000	12	96557	-35,9 %	69429	-33,0 %	27128	-42,4 %
2001	1	128921	33,5 %	78246	12,7 %	50675	86,8 %
2001	2	124163	-3,7 %	68729	-12,2 %	55434	9,4 %
2001	3	134016	7,9 %	79479	15,6 %	54537	-1,6 %
2001	4	112547	-16,0 %	66682	-16,1 %	45865	-15,9 %
2001	5	127176	13,0 %	80562	20,8 %	46614	1,6 %
2001	6	132672	4,3 %	82287	2,1 %	50385	8,1 %
2001	7	114878	-13,4 %	63935	-22,3 %	50943	1,1 %
2001	8	89350	-22,2 %	45540	-28,8 %	43810	-14,0 %
2001	9	131562	47,2 %	73562	61,5 %	58000	32,4 %
2001	10	145984	11,0 %	92778	26,1 %	53206	-8,3 %
2001	11	144989	-0,7 %	93148	0,4 %	51841	-2,6 %
2001	12	106107	-26,8 %	69306	-25,6 %	36801	-29,0 %
2002	1	152025	43,3 %	84525	22,0 %	67500	83,4 %
2002	2	147379	-3,1 %	81675	-3,4 %	65704	-2,7 %
2002	3	147820	0,3 %	88402	8,2 %	59418	-9,6 %
2002	4	129541	-12,4 %	93472	5,7 %	36069	-39,3 %
2002	5	158265	22,2 %	109025	16,6 %	49240	36,5 %
2002	6	112752	-28,8 %	78910	-27,6 %	33842	-31,3 %
2002	7	133877	18,7 %	84080	6,6 %	49797	47,1 %
2002	8	112803	-15,7 %	67032	-20,3 %	45771	-8,1 %
2002	9	144498	28,1 %	90321	34,7 %	54177	18,4 %
2002	10	149654	3,6 %	97982	8,5 %	51672	-4,6 %
2002	11	136976	-8,5 %	96026	-2,0 %	40950	-20,8 %
2002	12	97467	-28,8 %	71191	-25,9 %	26276	-35,8 %
2003	1	141269	44,9 %	90188	26,7 %	51081	94,4 %
2003	2	137114	-2,9 %	85029	-5,7 %	52085	2,0 %
2003	3	151848	10,7 %	102345	20,4 %	49503	-5,0 %
2003	4	144805	-4,6 %	100755	-1,6 %	44050	-11,0 %
2003	5	133016	-8,1 %	97517	-3,2 %	35499	-19,4 %
2003	6	155424	16,8 %	105638	8,3 %	49786	40,2 %
2003	7	140793	-9,4 %	92916	-12,0 %	47877	-3,8 %
2003	8	91390	-35,1 %	57463	-38,2 %	33927	-29,1 %
2003	9	153542	68,0 %	106819	85,9 %	46723	37,7 %

Appendix 3/4. The monthly production numbers of automotive industry in the UK since January 2000. 2/3

2003	10	153361	-0,1 %	113750	6,5 %	39611	-15,2 %
2003	11	142920	-6,8 %	110462	-2,9 %	32458	-18,1 %
2003	12	112444	-21,3 %	86671	-21,5 %	25773	-20,6 %
2004	1	141320	25,7 %	96389	11,2 %	44931	74,3 %
2004	2	141093	-0,2 %	93046	-3,5 %	48047	6,9 %
2004	3	163123	15,6 %	114297	22,8 %	48826	1,6 %
2004	4	129616	-20,5 %	95687	-16,3 %	33929	-30,5 %
2004	5	143134	10,4 %	102283	6,9 %	40851	20,4 %
2004	6	155512	8,6 %	108973	6,5 %	46539	13,9 %
2004	7	140773	-9,5 %	101058	-7,3 %	39715	-14,7 %
2004	8	83231	-40,9 %	56680	-43,9 %	26551	-33,1 %
2004	9	155321	86,6 %	107605	89,8 %	47716	79,7 %
2004	10	135116	-13,0 %	107442	-0,2 %	27674	-42,0 %
2004	11	149288	10,5 %	114409	6,5 %	34879	26,0 %
2004	12	109680	-26,5 %	82811	-27,6 %	26869	-23,0 %
2005	1	136034	24,0 %	89181	7,7 %	46853	74,4 %
2005	2	143461	5,5 %	98322	10,2 %	45139	-3,7 %
2005	3	153292	6,9 %	109912	11,8 %	43380	-3,9 %
2005	4	143305	-6,5 %	105866	-3,7 %	37439	-13,7 %
2005	5	131956	-7,9 %	99148	-6,3 %	32808	-12,4 %
2005	6	144252	9,3 %	111691	12,7 %	32561	-0,8 %
2005	7	130274	-9,7 %	93881	-15,9 %	36393	11,8 %
2005	8	97076	-25,5 %	71760	-23,6 %	25316	-30,4 %
2005	9	149880	54,4 %	108914	51,8 %	40966	61,8 %
2005	10	124794	-16,7 %	99434	-8,7 %	25360	-38,1 %
2005	11	149662	19,9 %	119390	20,1 %	30272	19,4 %
2005	12	95283	-36,3 %	77876	-34,8 %	17407	-42,5 %
2006	1	119122	25,0 %	86467	11,0 %	32655	87,6 %
2006	2	131194	10,1 %	95212	10,1 %	35982	10,2 %
2006	3	158773	21,0 %	119658	25,7 %	39115	8,7 %
2006	4	118572	-25,3 %	95173	-20,5 %	23399	-40,2 %
2006	5	132293	11,6 %	105435	10,8 %	26858	14,8 %
2006	6	139326	5,3 %	106823	1,3 %	32503	21,0 %
2006	7	117829	-15,4 %	88910	-16,8 %	28919	-11,0 %
2006	8	72959	-38,1 %	52106	-41,4 %	20853	-27,9 %
2006	9	122301	67,6 %	92279	77,1 %	30022	44,0 %
2006	10	116159	-5,0 %	95780	3,8 %	20379	-32,1 %
2006	11	128544	10,7 %	102256	6,8 %	26288	29,0 %
2006	12	84762	-34,1 %	65917	-35,5 %	18845	-28,3 %
2007	1	124197	46,5 %	94884	43,9 %	29313	55,5 %
2007	2	115651	-6,9 %	84895	-10,5 %	30756	4,9 %
2007	3	138036	19,4 %	100163	18,0 %	37873	23,1 %
2007	4	120431	-12,8 %	94546	-5,6 %	25885	-31,7 %
2007	5	128483	6,7 %	103045	9,0 %	25438	-1,7 %
2007	6	137502	7,0 %	108794	5,6 %	28708	12,9 %
2007	7	129735	-5,6 %	98269	-9,7 %	31466	9,6 %

Appendix 3/4. The monthly production numbers of automotive industry in the UK since January 2000. 3/3

2007	8	100200	-22,8 %	69667	-29,1 %	30533	-3,0 %
2007	9	139283	39,0 %	104442	49,9 %	34841	14,1 %
2007	10	152253	9,3 %	124338	19,0 %	27915	-19,9 %
2007	11	146236	-4,0 %	118671	-4,6 %	27565	-1,3 %
2007	12	102591	-29,8 %	83691	-29,5 %	18900	-31,4 %
2008	1	148644	44,9 %	111738	33,5 %	36906	95,3 %
2008	2	145823	-1,9 %	110998	-0,7 %	34825	-5,6 %
2008	3	127064	-12,9 %	97948	-11,8 %	29116	-16,4 %
2008	4	152726	20,2 %	120711	23,2 %	32015	10,0 %
2008	5	118866	-22,2 %	92941	-23,0 %	25925	-19,0 %
2008	6	131468	10,6 %	101016	8,7 %	30452	17,5 %
2008	7	131079	-0,3 %	98541	-2,5 %	32538	6,9 %
2008	8	82858	-36,8 %	60057	-39,1 %	22801	-29,9 %
2008	9	142606	72,1 %	110328	83,7 %	32278	41,6 %
2008	10	114058	-20,0 %	94382	-14,5 %	19676	-39,0 %
2008	11	97604	-14,4 %	83087	-12,0 %	14517	-26,2 %
2008	12	53823	-44,9 %	46560	-44,0 %	7263	-50,0 %
2009	1	61404	14,1 %	51272	10,1 %	10132	39,5 %
2009	2	59777	-2,6 %	46617	-9,1 %	13160	29,9 %
2009	3	61829	3,4 %	46458	-0,3 %	15371	16,8 %
2009	4	68258	10,4 %	56267	21,1 %	11991	-22,0 %
2009	5	67754	-0,7 %	53980	-4,1 %	13774	14,9 %
2009	6	91718	35,4 %	72422	34,2 %	19296	40,1 %
2009	7	107635	17,4 %	79779	10,2 %	27856	44,4 %
2009	8	56737	-47,3 %	37564	-52,9 %	19173	-31,2 %
2009	9	119616	110,8 %	75324	100,5 %	44292	131,0 %
2009	10	106400	-11,0 %	87667	16,4 %	18733	-57,7 %
2009	11	112948	6,2 %	88172	0,6 %	24776	32,3 %
2009	12	85316	-24,5 %	66673	-24,4 %	18643	-24,8 %
2010	1	101190	18,6 %	73053	9,6 %	28137	50,9 %
2010	2	97255	-3,9 %	70482	-3,5 %	26773	-4,8 %

Appendix 4/4. British automotive industry history until 1987. (Adeney, 1988, p. 345-355) 1/5

YEAR	POLITICAL EVENTS	BRITISH INDUSTRY	OVERSEAS
1886			Benz and Daimler make first cars in Germany
1888		Dunlop patents tyre	
1889			Daimler licence for French Panhard and Levassor
1890			Peugeot starts in France
1893			Benz Velo is first series production car Duryea brothers build first US car
1894		First car imported - a Benz	
1895		Austin and Lanchester experiment with first cars	
1896	Red Flag Act repealed	London-Brighton 'emancipation run' British Motor Syndicate, Great Horseless Carriage Co, and Daimler Co (in Britain) founded Austin and Lanchester build first cars	Henry Ford builds first car
1897		First factory-produced Daimler	
1899	Boer War begins	First four wheel Humber Richmond exhibition	
1900		First Napier car produced Thousand Mile Run	
1901		Wolseley and Argyll Co start British Motor Syndicate patents challenged Lanchester invents disc brakes	Daimler builds first Mercedes
1902		First Vauxhall Sunbeam & Jowett engine	
1903	Wright Brothers make first aircraft flight	First Rover and Standard Ford imports first cars	Ford Motor Co established and first production cars made
1904		Henry Royce builds first Rolls-Royces	
1905		Austin starts own company First Jowett Vauxhall move to Luton Royal Commission on Motor Cars	
1906			United States overtakes France as world's biggest car producer
1908			Ford builds Model T
1909	Budget introduces tax based on horsepower so encouraging smaller British engines	Lanchester joins Daimler	
1911		Ford starts assembly in Manchester	

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1912		3000 Fords produced Morris makes first car - the Morris Oxford	
1913		Ford production doubles to 6000 25000 cars made in Britain	Production: 45000 in France, 485000 in US
1914	First World War starts		
1915	McKenna duty puts 33.3 % on all motor imports		
1918	War ends	Month long strike at Austin	
1919		Moulders' strike	
1920	Economic slump begins Increased horsepower tax encourages small cars	General Motors bid for Austin	
1921		Austin calls in Receiver	
1922	Slump	Morris cuts prices Austin Seven First Clyno	
1924	McKenna duties lifted by Labour Government	250000th Ford Ford buis site at Dagenham Merger talks between Austin and Morris	Morris buys Bollée plant in France Bentley wins Le Mans
1925	McKenna duties reimposed	Morris sets up export office	Ford starts manufacture in Germany
1926	General Strike	Morris buys Wolseley	GM takes over Adam Opel in Germany
1927		Pressed Steel Co set up Bentley wins Le Mans for first of 4 times	Austin Seven made under licence in Germany becoming first BMW
1928	Petrol duties reimposed	SS Cars (Jaguar) move to Coventry	Austin Seven made under licence in France
1929	New world trade slump begins	Edsel Ford starts Dagenham construction GM buys Vauxhall Rootes Group of motor dealers buys Humber and Hillman and become manufacturers	Austin attempts US construction under licence
1930		MG Car Co set up	Austin US production ends in fiasco
1931		Ford opens at Dagenham	Morris winds up Bollée
1932	Peak recession year	Ford Model Y Austin 10 Production falls by about 13 per cent	US production 75% below 1929; German production halved; France loses one third
1933	Peak unemployment years		
1934		Morris Eight	
1935	30 mph limit	Ford cuts Model Y prices to £100 Rootes takes over Sunbeam	

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1936	Shadow factory scheme launched		
1939	Second World War starts		
1940		Heavy bombing of Coventry car plants; also at Vauxhall and Ford at Dagenham	
1945	War ends		More manufacturing being done in Australia, traditional large market; restricts imports
1946	Controls on steel supply - export drive		
1947	Horsepower tax ends	Factory power cuts	
1948		Morris Minor launched	
1950		First post-war Ford - the Consul	Britain world's biggest exporter overtaking US
1951	Korean War Steel shortage		
1952	Hire purchase restricted for first time - start of 'regulator'	Austin-Morris merge into British Motor Corporation	
1953		Big companies buy bodymakers - Ford buys Briggs and BMW take Fisher and Ludlow Ford Anglia, Prefect & Popular introduced	Jaguar's first win at Le Mans
1954	HP restrictions abolished		British exports stable - French exports up 30 %; W. German up 55%
1955	HP up twice	Rootes takes over bankrupt Singer	First Japanese designed car produced by Toyota
1956	Suez crisis Petrol rationed HP restrictions tightened	Production and sales drop	W. German production and exports pass British
1957	HP restrictions tightened again		
1958	HP restrictions lifted	Production over one million	
1959	M1 opens in England	Mini launched Triumph Herald Ford Anglia 105E	Aston Martin wins at Le Mans
1960	Credit squeeze HP restrictions back		
1961		Jaguar takes over Daimler Leyland takes over Standard-Triumph Exports and production fall heavily	French car production passes British
1962		Ford Cortina	Honda builds first car
1963		Ford opens Halewood Rootes opens Linwood Vauxhall opens Ellesmere Port and (1964) starts Viva production there	

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1964		Chrysler buys share of Rootes	
1965	HP restrictions tightened	Sales and production falls	Rootes signs Iran Paykan deal
1966	HP restrictions tightened Industrial Reorganization Corporation set up	BMC and Jaguar merge as British Motor Holdings Leyland takes over Rover	
1967	Pound devalued HP eased twice and then increased	Ford creates Ford of Europe Chrysler takes over Rootes	First Paykan produced in Teheran
1968	HP restrictions increased Import duties start to fall sharply from 25,2% to 11% in four years	Leyland and BMC merge to form BLMC First Ford Escort Exports rise sharply from 502000 to 676000	Japanese production passes both British and French going from 1.3 million to 2 million
1969		Imports up by half All-time export record of 771634	
1971	HP restrictions abolished	Morris Marina	Japanese production at 3,7 million passes W. Germany
1972	Import duties down to 11%	Record production year - 1921311 Imports at 450314 are four times 1969 level	
1973	OPEC oil crisis starts slump HP restrictions back		Citroen in financial difficulty
1974		BLMC in talks with banks, asks for Government help	Peugeot takes over Citroen
1975		Ryder Report and reorganization of British Leyland	Talks between British and Japanese on voluntary restrictions of imports into Britain
1976		British Government rescues Chrysler UK	
1977		Strikes cost one third of BL production Michael Edwardes appointed Ford Fiesta	
1978		Peugeot takes over Chrysler Europe forming Peugeot-Talbot	
1979	Second oil price shock	Britain into red on motor trade - minus 287 million - first time for over 50 years	Paykan contract disrupted by Iran revolution
1980		MG closes Car production below a million for first time since 1957	Japan overtakes US as world's largest producer Big US companies make big losses

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1982	HP restrictions lifted	Ford Sierra replaces Cortina British motor trade into red again - for good. Minus £973 million	
1983		Peugeot-Talbot shift design out of Britain	
1984		Jaguar sold off Nissan signs deal with Government to set up plant	
1985		Record car sales - 1.8 million	
1986		Nissan starts manufacture in Britain Jaguar launches new car Rover Honda executive car launched as Rover 800 and Honda Legend	
1987		Lucas sells electrical lighting business to Fiat Ford buys Aston Martin-Lagonda and AC Cars	Peugeot-Talbot and Vauxhall building for export in Britain Rover Group exporting one third of output