EKONOMIHÖGSKOLAN
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Organizing for innovation in mature markets

- A case study of SCA Packaging

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1 Introduction

This chapter will give the reader an overall introduction to the thesis. It will describe the main aspects of what this paper will discuss and why those are relevant in a broader context. The chapter will further state the purpose of the thesis and conclude in the disposition of the paper.

1.1 Background

In the late 18th hundred century, the president of the U.S Patent Office, Mr Charles Duell, made the today legendary statement that "everything that can be invented has already been invented". He consequently saw no reason for the U.S Patent Office to continue their work and recommended that it should be shut down.[1] The accuracy of the above statement has over the years been much questioned and many are those who argue that the statement is simply a myth that has been passed on from generation to generation. Either way, the reason behind the myth's survival and popularity, might be explained by the fact that it in an amusing way makes fun of predictions that do not come to pass. More important in this context however, is that it illustrates the continuous development of the society and the fact that innovations keep taking place all the time, either we want to or not.

Innovation, and perhaps even more the ability of being innovative, plays today an important role in the increasingly global business society. [2] Most industries tend to be characterized by shorter and shorter product life cycles, intensified competition and shorter lead times. Even the most complex products like car engines now only takes two-three years to develop[3] and the expression "competing in time" reflects the growing pressure on firms not just to launch new products, but to do so more rapidly than its competitors[4].

The continuously expansion of the European Union is another example of how different markets are becoming more and more connected. It further illustrates how the average organization is exposed to a larger market as well as a broader competition. Hence, it is possible to argue that it has become increasingly important to be innovative in order to be able to respond to the shortened product life cycles, differentiate the company from its competitors and utmost gain a competitive advantage.

The importance of finding new and breakthrough innovations has recently also been much accentuated in the work by O'Reilly and Tuschman. Their theory, better known as "The ambidextrous organization", implies that it exist an optimal organizational structure that will enable the firms to develop the radical innovations needed while at the same time sustaining and developing the firms existing business.[5] The work by the two authors is highly interesting since representatives of organizational theory long have been troubled by the problem of exploring while exploiting. The novelty of the work presented also suggests that it exist a strong need for further empirical studies within this subject.

[1] www.ideafinder.com
[2] Dodgson, M (2000) *The Management of Technological Innovation*
[3] Tidd, J, Bessant, J & Pavitt, K (2001) *Managing Innovation; Integrating technological, market and organizational change*
[4] Ibid
[5] O'Reilly III, A C & Tushman, L M (2004) "The Ambidextrous Organization"

Managing innovation seems thus to be something far from simple, at least according to the vast majority of the existing literature and the research that has been carried out on the subject. [6] A common opinion appears to be that especially large and established firms, so called Mulinational Corporations (MNC's), have struggled in their attempts to integrate innovation in their organizations[7]. Perhaps one reason for that is that many established firms find themselves in mature markets, a state which in the famous product life cycle curve is synonym with a strong focus on manufacturing efficiency and cost reductions, not innovations. However, if successfully managed, research indicates that the companies that is able to use innovation to improve their processes or to differentiate their products and services, will perform better than their competitors in terms of profitability, market share, growth and/or market capitalization. [8]

1.2 Discussion of the problem

Many are the companies of the corporate world that are facing shrinking margins and lower profitability due to stagnant markets and increased competition. Those mature industries are characterized by standardized products with a strong focus on cost and efficiency where the possibilities for the firm to differentiate itself from the competition consequently are reduced. Finding a way out of this negative path dependency seems to be equally difficult for the companies as it is crucial.

A major concern for companies that search to break out of the maturity state seems to be the problem of successfully integrating an innovation capability in the organization while at the same time sustain and develop the current business. Many firms in the maturity phase tend to be able to refine their existing products and services but few of them are successfully creating new concepts and products that can earn them a sustainable competitive advantage. The problem however, is that both abilities are needed, at least if the firm would like to succeed both in the short as well as the long run.

This thesis will consequently try to increase the understanding of which factors that drive and impact innovation in large and established companies. This is a field in which the author of this paper has identified a potential gap of empirical material and the ambition is thus to contribute with important and relevant information. In order to do so, this thesis will report the findings from a qualitative case study carried out on SCA Packaging, a multinational packaging company operating in the traditional and mature paper industry. The empirical findings from the study will be compared to relevant theories on the subject, especially concerning the organizational structure referred to as "the ambidextrous organization". This is a theory that further has developed the work on exploration and exploitation by James G March. The theory discusses how the organization can be successful in both working with incremental as well as radical innovations, something that the authors argue is vital for a firm that would like to stay competitive in the future. The recent theories concerning the ambidextrous organization is in this paper further combined with even later theories discussing how organizations can build a radical innovation capability while not losing its core business. The focus on incremental and radical innovations is therefore present

[6] Tidd, Joe, Bessant, John & Pavitt, Keith (2001) *Managing Innovation; Integrating technological, market and organizational change* AND Fleming, Lee, Sorenson, Olav (2003) "Navigating the Technology Landscape of Innovation"

[7] Davila, Tony, Epstein, Mark & Shelton, Robert (2005) *Making Innovation Work: How to manage it, measure it, and profit from it*

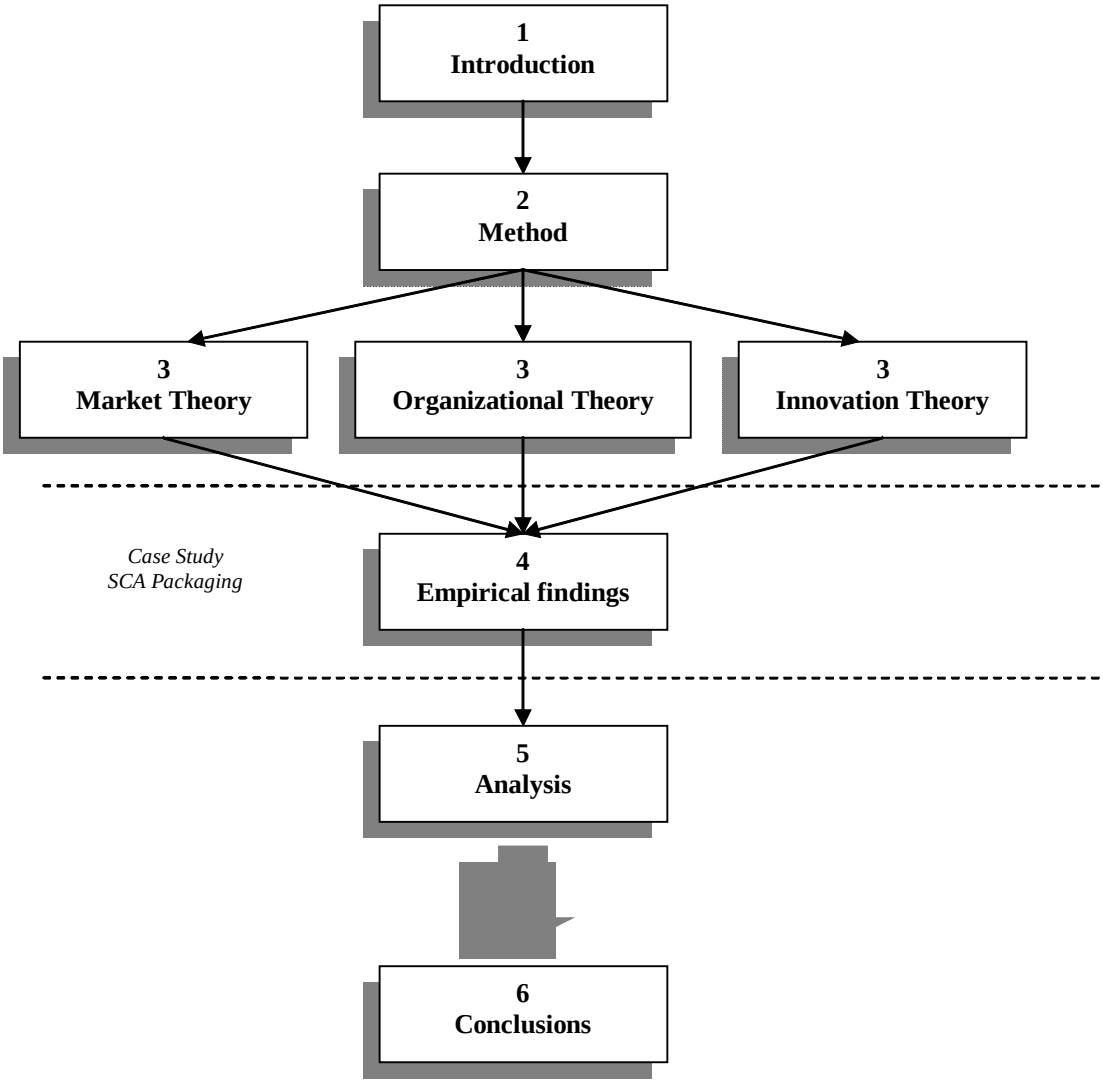
[8] Tidd, Joe, Bessant, John & Pavitt, Keith (2001) *Managing Innovation; Integrating technological, market and organizational change*

throughout this study. The overall objective is thus to present the existing theories within the field and to find out if there are any specific factors and conclusions that can that can be withdrawn after comparing those with the empirical findings.

1.3 Purpose

The purpose of this thesis is to increase the understanding of which factors that impact and drive innovation in large and established organizations.

1.4 Disposition of the thesis



2 Method

The objective with this chapter is to present the reader with the methods and processes that have been used when conducting this paper. The chapter will explain the different choices that the author has made and on how they have influenced the thesis. Lastly, the information gathering process as well as the validity and reliability will be described and discussed.

2.1 The Selection of research method

The purpose of this study is to increase the understanding on which factors that drive and impact innovation in large and established organizations. To fulfill that purpose, the author of this paper has chosen to conduct a single qualitative case study. The reason for choosing this type of research method was based on the fact that a qualitative case study is more appropriate to use in studies concerning in-depth questions and interpretations of a social context. It would have been difficult to use a quantitative method in order to fully understand the complexity behind organizational structure and innovation management. By using a qualitative approach, the author is more likely to be able to present an overall picture of the situation. [9]

The qualitative method is also very suitable in this study since the researcher would like to get rich information from a variety of employees within the company. A great deal of interest lays in capturing the unexpected or the unique, which can help the author to describe the complexity of innovation in a mature industry. The author also aimed to be close to real time events, interviewing the employees in their workplaces and visiting a number of SCAP plants.[10] The fact that this is a single case study has further enabled the author to fully concentrate on the studied company and to gain a comprehensive knowledge of its organization. This should be seen as an advantage considering the fact that the methodological purpose has been to increase the apprehension of an occurrence, not to withdraw any statistical conclusions.

It could perhaps have been relevant to use observation as a method for the data collection in this paper. The observation method offers a very close relationship with the studied object, just like the qualitative case study, but with the difference that it is a less appropriate method if a historical process is to be examined. The fact that the timeframe for this paper has been quite limited further indicates that the observation method is less useful in this context, being a fairly time consuming method.

2.2 The selection of SCAP

The reason for studying and examining a company like SCAP depended on a number of different factors. One of the more important factors was the fact that SCAP is an established company that is operating in an international environment. The industry in which SCAP finds itself is also showing clear signs of being mature, making it interesting to examine the activity level of innovation. As previous mentioned, mature markets are not known for their high degree of radical innovation which thus makes it relevant to try to understand which underlying factors that drives and hampers innovation in a mature industry. The company has further a long history of growth through acquisitions but has since a few years back, due to

[9] Holme, Idar Magne & Solvang, Bernt Krohn (1997) *Forskningsmetodik: Om kvalitativa och kvantitativa metoder*
[10] Ibid

among others new European market regulations, started to look for other ways to grow. The fact that SCAP also have a relative unusual and very decentralized organizational structure, spread out over a large geographical area, made it interesting to examine out of an organizational perspective.

2.3 Information gathering

2.3.1 Primary data

The primary information collected for this paper comes mainly through personal interviews with employees from SCAP. Primarily data was sourced from a total of 17 in-depth interviews conducted with a variety of employees;

- 5 head office staff based at the central office in Brussels. These positions include managers within Strategic Account, Marketing, Training & Support, Business Development as well as one Vice President of Supply Chain & Operations Development.
- 1 Director of Idea & Knowledge Management Manager
- 1 Research Programme Director
- 6 regional managers from the UK & Ireland Region, Middle Europe and Nordic Regions. Managerial areas include Marketing, Operations, Sales, Design Development and Learning & Development.
- 4 line managers, including general managers and plant staff unit managers.

The interviews were semi structured and included both open and closed questions.[11] The interview questionnaire was sent out in advance to 12 of the 17 respondents, which also represents the number of occasions that the interviews were taped and transcribed. Any obscure or unclear answers were revised and then verified with the respondent, either by phone or email. The interviews lasted between 30-120 minutes with an average length of about 80 minutes.

Interviews typically started by questions like “how would you define innovation?” or “what is your view on the innovation work currently being carried out within SCAP?” The interview followed the structure of the interview questionnaires but some adjustments and additional questions were occasionally made or added in order for the interpreter to penetrate certain fields and to gain a deeper understanding of the subject. Modifications were also made along the way as the thesis progressed and the author learned more about the company, its different business units, plants and what the different interviews work consisted of. It is the authors’ belief that the degree of flexibility used in the information gathering process, due to new inputs and a better understanding of the studied object, have contributed to a better and more valid empirical foundation. It should also be regarded as an important part of the thesis learning process.

The respondents participating in this study were selected in order to enable the author to get a broad picture of the studied company and the examined subject. Hence, top management in Brussels were interviewed in order to present the author with relevant information concerning the overall structure of the company, SCAP’s long term objectives as well as its strategic processes out of an innovation perspective. Central management in the UK and Germany were interviewed so that important information concerning organizational structure and innovation processes could be looked upon out of a more regional perspective. Their views of

[11] Appendix 1

the work within SCAP were then further followed up by the fact that the author was able to conduct a number of interviews with local plant managers and their management teams. The interviews carried out on a plant level provided this study with important knowledge on specific innovation projects. Lastly, interviewees were conducted with the head responsible for SCA development program as well as the manager for the R&D function, providing the author with highly qualitative information and insights to the innovation work at SCA and SCAP as a whole.

2.3.2 Secondary Data

The secondary data that has been used in this paper has been gathered both from the existing literature as well as from a number of research journals and magazines. The author initially started the information gathering process by searching for relevant articles in different databases and on the Internet. The Lund University database ELIN served as particularly important tool with its rich source of information and its links to useful websites. Important inputs and useful tips on where to find the latest literature have also come from the university council of the author as well as from representatives within SCAP. Secondary data has also been gathered from secondary sources like annual reports and the SCAP website. SCAP employees have also provided the author with other empirical data in electronic form, e.g. internal material considering restructuring programs as well as more public presentations presenting the firms products and offerings.

Secondary sources are naturally influenced by their owners, i.e. authors, and are not as reliable as if we would collect the information ourselves. The author of this report is well aware of that the theories studied have been affected by others and that they possibly have had other intentions with their work than the way we interpret them. Multiple sources of information and a critical mindset have therefore been used when ever possible in order to reproduce a picture as accurate as possible. It would however be wrong to state that it exist a great variety of literature that explicitly discusses the relationship between innovation and mature markets, somewhat complicating the matter. The literature that has been found within the field of study has however had a high degree of novelty, indicating that the subject will be discussed more in the time to come.

2.4 Choice of theory

This paper is trying to link together the fields of organization and innovation out of a mature market perspective. Innovation is primarily discussed out of a radical perspective, i.e. how the firm can explore new potential markets while at the same time exploit the existing ones. This is a central issue of the thesis and which is discussed in both the theories of Tuschman and O'Reilly as well as by Ayers and Colarelli O'Connors. The two sets of authors' present different organizational models for radical innovation based on their extensive field studies of large multinational corporations. This paper further explores the characteristics of mature markets in order to exhibit the potential gains that a firm can inhibit if working proactively with innovation. Traditional as well as more recent theories on competitive strategy in the maturity phase have accordingly been selected to provide both the author and the reader with important insights.

The ambition with the presented theory in this paper is that it will represent an accurate and diversified picture of the theories available within their fields. Much time and devotion has also been made to in a comprehensive way exhibit the linkage between organizational structure, innovation, maturity and performance.

2.5 Validity and Reliability

2.5.1 Validity

Qualitative studies are, in relation to quantitative studies, known for their high validity since they consist of a close relationship between the author and the examined object.[12] The external validity for a qualitative single case study is however generally known to cause a problem since no statistical generalizations can be made. The importance with a single case study is that it still enables the author to make analytical generalizations. This means that the author of this paper have strived to generalize a particular set of results to broader theory. [13] The fact that this is a single case study does further not allow the results to be dismissed only because they are based on the findings from one studied company. The ambition with this study is thus to generalize and compare the empirical findings from SCA Packaging with theories in the field.[14] Furthermore, in order to attain as high validity as possible, much work in this paper has been devoted on translating the theoretical terms into their operational equivalence. The stated purpose and important documents, like for example the interview questionnaire, has also been reviewed by the author's experienced council, assuring a higher degree of validity than if so would not have been the case.

The author had no experience and little knowledge of SCAP and their business before the start of the study, thus facilitating the objectivity of the author towards the company. [15] The fact that the author has experience in conducting interviews from earlier professional work further indicates that the author should have the ability to collect and interpret the interview information correctly. This is however no guarantee for a high validity since each situation is unique. Still, it is the authors' belief that it is an advantage in feeling comfortable in interviewing and being experienced in collecting and analyzing information.

2.5.2 Reliability

According to Yin, the ultimate objective with reliability is to ensure that a study performed by person X will exhibit exactly the same results when identically performed by person Y.[16] This is something that is known to be quite difficult to accomplish, particularly in qualitative case studies. The reliability aspect has therefore not as a central position in qualitative methods than it has in the quantitative ones. The general idea behind qualitative studies is normally to study the objective from a more "in-depth" perspective, therefore making it difficult to quantify. [17] The author of this paper makes no claim that an identical study would exhibit exactly the same results and come to exactly the same conclusions as the original. The ambition has nevertheless throughout the work been to follow the same procedures and processes. The methods used and the different steps taken has further been documented in order to secure a high level of reliability.[18]

The reliability aspect relevant for this paper concerns the interviews and the process in which they have been conducted. All interviews performed have been oral which mean that the

[12] Holme, Idar Magne & Solvang, Bernt Krohn (1997) *Forskningsmetodik: Om kvalitativa och kvantitativa metoder*
[13] Yin, K Robert, (2003) *Case study research: Design and methods*
[14] Yin, K Robert, (2003) *Case study research: Design and methods*
[15] Ibid
[16] Yin, K Robert, (2003) *Case study research: Design and methods*
[17] Holme, I.M., Solvang, B.K.; *Forskningsmetodik: Om kvalitativa och kvantitativa metoder* Studentlitteratuer (3 edi 1996)
[18] Ibid

reliability can be affected by factors like noise, facial expressions, intonation and so forth. This problem has the author minimized by posing the majority of questions in the same order and sending out the questionnaire in advance. To further ensure a high level of reliability, the vast majority of the interviews have been taped and transcribed. In those few cases which did not involve a tape recorder, extensive notes were taken and immediately reviewed for verification. The reliability in this study is furthermore positively affected by the fact that a large variety of employees with different positions within SCAP have been interviewed (see section 2.2.2). This, which in methodology is referred to as "source-triangulation", increases the reliability since the problem is studied from many different perspectives.[19]

[19] Yin, K R, (2003) *Case study research: Design and methods*

3 Theory

The ambition with the theoretical chapter is to present the reader with relevant theories within the field of organization and innovation. This part of the thesis will thus discuss different innovation types, the characteristic of a mature market and finally different organizational structures for innovation.

3.1 Introduction to theory

It exist several groups of theories that are concerned with organizational learning, organizational behavior and not least knowledge management. A common factor for many of those theories and models, are that they often in one way or another involve theories or models concerning the field of organizational structure. This is a field where the early work of Mintzberg and his structural archetypes, also known by some as the "Pentagon model"[20], have received much recognition and for many served as an important tool for identifying the appropriate organizational structure.[21] These theories and models have been developed and refined over the years and some attention has recently been brought on how the organizational structure can be designed to support and drive innovation.

The common view in the existing organizational literature appears to be that achieving an organizational structure that spurs and drives innovations, particularly technological such, are not an easy thing to do[22]. Nevertheless, innovation represents the core renewal process in any organization according to some authors and it is thus extremely relevant to have an appropriate organizational structure that can drive and support the innovation process.[23] This becomes even increasingly important when a company finds itself in a market phase that is best described as mature, e.g. intense competition and shrinking profit margins. However, enabling innovation and at the same time successfully maintaining the existing business can sometimes be difficult, some claim impossible.[24]

Following the above discussion, this thesis will in this theory chapter concentrate on introducing the reader to; the different types of innovation and its strategies, the mature market phase from an innovation perspective and last the organizational aspects mainly concentrating on the ambidextrous organization and how the firm can construct a radical innovation ability.

3.2 Innovation

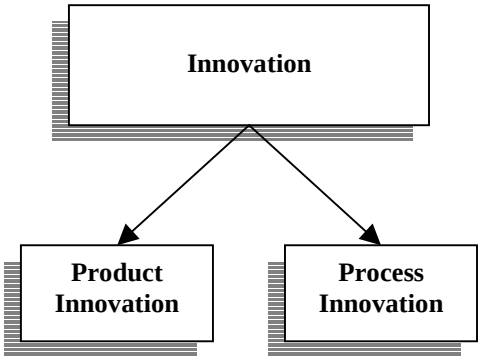
"Just as energy is the basis of life itself and ideas the source of innovation, so is innovation the vital spark of all human change, improvement and progress"

[20] Drago, William (1998) "Mintzbergs Pentagon and Organization Positioning"
[21] Tidd, Joe, Bessant, John & Pavitt, Keith (2001) *Managing Innovation; Integrating technological, market and organizational change*
[22] Ibid
[23] Shavinina, V Larisa, (2003) *The international Handbook on Innovation*
[24] Campell, Andrew; Birkinshaw, Julian, Morrison, Andy: van Basten Batenburg, Robert (2003) "The future of Corporate Venturing"

– Ted Levitt (former editor of Harvard Business Review)

Innovation is a widely used term and the definition can vary some dependent on the context in which it is used. It is however important to understand the difference between innovation and invention, two terms that otherwise easily can be confused. An *invention* might best be described as the result of the development of new knowledge or from new combinations of already existing knowledge. The invention itself can both be of a product and process nature. [25] An *innovation* on the other hand, is the result of one or many inventions and can be defined as "the successful exploitation of new ideas"[26]. Another definition of innovation, which perhaps is a little more elaborative is; "the recognition of opportunities for profitable change and the pursuit of those opportunities all the way through to their adaptation in practice"[27]. Thus, an innovation is the initial commercialization of an invention.[28]

It is important to recognize that it exist different types of innovations, everything from minor process innovations to more radical and extreme innovations like the first airplane or the Internet. The later two are often referred to as product innovations even though it sometimes can be difficult to draw an exact line between a process and a product innovation. This is for example often the case with services; is a new vacation package a product or a process innovation?[29]



Common when talking about or discussing innovation, is that it is usually referred to something that in some kind of aspect involves a change.[30] This can be, as discussed above, either a change in process or a change in a product. *The impact of the change* is considered as a second factor which clearly determines how the innovation is perceived by its surroundings. This can perhaps better be described as the *degree of novelty* that the innovation brings with it. [31]

[25] Grant, Robert M. (2002): *Contemporary strategy analysis-concepts, techniques, applications*
[26] Dave, Francis & Bessant, John, (2005) "Targeting innovation and implications for capability development"
[27] Ibid
[28] Grant, Robert M. (2002): *Contemporary strategy analysis-concepts, techniques, applications*
[29] Tidd, Joe, Bessant, John & Pavitt, Keith (2001) *Managing Innovation; Integrating technological, market and organizational change*
[30] Ibid
[31] Ibid

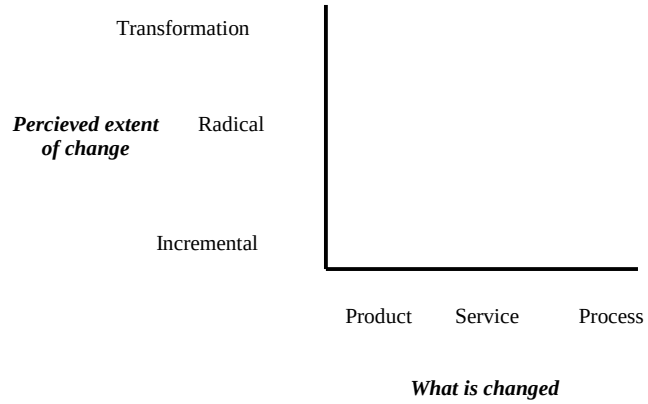


Figure 3.2 "Dimensions of innovation space" [32]

In this thesis, the author will look upon innovation primarily out of two perspectives; incremental and radical innovations. Incremental innovations are best described as "day-to-day" innovations which in general are focused around the existing core business. As the term "incremental" indicates, these types of innovations are often characterized by minor improvements in processes and offerings, normally leading to better quality and productivity. These innovations can have a large impact on the company's success and some studies argue that the incremental innovations are more important, in terms of cumulative efficiency gains, than those from occasional radical changes[33]. Many Japanese firms (i.e. Toyota) have been recognized world wide due to their ability of continuously improvements, often referred to as Kaizen costing and Total Quality Management (TQM).

The second type of innovation discussed in this thesis is the so called "radical" innovation. The radical innovation is the type of innovation that typically can change the "rules of the game" on an entire industry. The development of the CD-player completely revolutionized the record industry and replaced the former Vinyl-player within just a few years. The same phenomenon is currently happening with the DVD player which is taking over the VHS market. Radical innovations are however not limited to products. They can be just as radical in their way of changing existing processes or business models. For example, the first mass produced car, the T-Ford, revolutionized the automobile industry since it made it possible for the average American to buy their own car. Until then, the automobile had been a restricted privilege for the wealthy part of the American population.

3.2.1 Maneuvering between the incremental and radical innovation strategy

The separation aspect is also discussed by Fleming and Sorenson, however in a slightly different context. They argue that each organization has its strengths and weaknesses, and that some companies are better of making incremental improvements while others should focus on breakthrough innovations. Identifying how minor component changes affect different products innovations differently is a first important step to understand the trade-off between predictability and innovation and which innovation strategy the company should focus on. The choice is much dependent on how risk-avert the specific company is. Incremental innovations involve a lower risk factor but the downside is that they do not generate the same

[32] Tidd, Joe, Bessant, John & Pavitt, Keith (2001) *Managing Innovation; Integrating technological, market and organizational change*
[33] Ibid

profitable upside as the radical innovation. For example, a slight modification in a modular design has relatively low impact on the performance of the other parts of the system; changing the heating element of a coffeemaker does not significantly change the product. However, in a coupled design (non-modular), a seemingly insignificant change of one part can cause an unexpectedly big difference in the overall performance of the product. Fleming and Sorenson states that modular designs in general make R&D more predictable but that they tend to result in incremental product improvements rather than important advances.[34]

By creating a "map" over the technology landscape, firms can better understand what decisions to make about their innovation process and how to allocate their resources. The technological landscape is illustrated by gently sloping hills, corresponding to the incremental innovations, and to high and step peaks, representing the radical or so called breakthrough innovations. A company that is having a difficult time in delivering products from R&D into the manufacturing phase may be in an area with high peaks but also step valleys, making it very difficult to find those peaks. Realizing that, the company should perhaps shift its route and try to find a place on the map with less precarious terrain. They could for example start using more modular components like standardized parts.[35]

3.2.2 The development of Innovation strategies

The views on innovation and particularly the strategies used to drive innovations have evolved over the years. Like in most research, new ways of approaching a problem or explaining a behavior, develops continuously, so also in how to explain what drives the innovation process. According to Rothwell, the sources and nature of innovation can be categorized into five generations of thinking; [36]

First generation - The science-push approach
This so called "science-push approach", evolved during the 1950's-1960's and was widely recognized among many government policy makers and leaders for major industrial corporations until the early 1970's. This approach was based on the thinking that innovation is a linear process that begins with a scientific discovery which then continuous through the invention, engineering and manufacturing activities, finally ending up with the marketing of the new product (or process). It clearly indicated that a new product or process was a result of the internal work from the organization, typically the R&D department. This approach was mainly criticized for being too narrow thinking, only applying to simple products and processes and for not providing any feedback.

Second generation- The demand-pull approach
The second generation was also based upon a linear way of thinking and started to gain acceptance in the mid 1960's. It was particularly well received in pronominal capitalist economies, mainly by public policy-makers and industrial managers. The difference between the two approaches lies primarily in how the innovation is derived. The demand-pull model argues that innovations derive from a perceived demand which then influences the direction and speed of the technology development. The demand itself comes from the customer/clients who interact directly with the different customer departments who then pass on the information to the research staff. They are then supposed to come up with the appropriate solutions to any possible problems.

[34] Fleming, Lee, Sorenson, Olav (2003) "Navigating the Technology Landscape of Innovation"
[35] Ibid
[36] Dodgson, M (2000) *The Management of Technological Innovation*

Emphasis in the demand-pull approach is on the customer. The marketing aspect becomes therefore important since the market is the source of direction for the R&D department. However, this model has also been widely criticized, much due to that it is perceived as "oversimplified".

Third generation -The coupling approach
The third generation, the coupling approach, differed from its two precursors even though it still regarded the innovation process as logical sequential. In this model however, the demand-pull approach was integrated with a supply-push aspect and then concentrated around an interaction process where innovation was regarded as a logically sequential but though not necessarily continuous process. Much more focus was thus on trying to link the marketing and R&D functions together, especially in the interface between the two. The coupling approach also provides feedback loops due to its interaction between the separate downstream and upstream phases.

The fourth generation- The integrated approach
This approach was developed by Kline and Rosenberg in the mid 1980's [37] and has been called the "chainlinked" model. The main contribution with this model is that it emphasis on the integration between the R&D and manufacturing. It shows the very complex interrelations, feedback loops and iterations that continuously occur between the different departments (R&D, manufacturing, distribution and marketing) in the innovation process. The feedback process is very important. The R&D department work therefore closely with primarily the manufacturing department in order to determine if the products are possible to manufacture.

The integrated approach also focus on a close relationship with so called "leading-edge" customers or better known as "lead users". A lead user can be defined as someone who is familiar with conditions that lies in the future for most people and whose current needs most likely will become general in the marketplace in months or even years to come. They can therefore serve as excellent forecasting tools for the firm in order to understand what new products and services that will be needed in the time to come. This is especially important in industries characterized by a fast moving environment and/or high technological products. Lead users are also useful in developing new product and design concepts since they most of the time strive after filling the need they perceive. That is perhaps the greatest advantage versus the "normal" customers since it is known that they are unlikely to develop new concepts. This is due to that they are constrained by the already existing attributes of the existing products/services/processes on the market. [38]

The fifth generation- Systems integration and networking approach
The fifth generation is the latest contribution to describe the innovation process and it focus on the increasingly importance for the innovative company to collaborate both internally, between the different business departments, as well as externally with other organizations. It is mainly the strategic and technological integration that is considered and how these are enhanced by the automation of the innovation process. The innovation process has moved away from being sequential to instead being parallel and rather organized according with business processes than functional structures. The "compete in time" aspect demands a much higher degree of flexibility and responsiveness from the firms, especially in terms on how they are organizing their skills and practices.

[37] Ibid
[38] Von Hippel, Eric (1989) "New Product Ideas from Lead Users"

In a more pragmatic view, this can be exemplified by the use of expert systems and simulation modeling within the R&D department. The more integrated approach towards leading-edge customers, originating from the fourth generation model, have been developed even further and joined by the strategic integration with main suppliers including co-development of new products and processes. Collaborative arrangements become more and more important, particularly within research and marketing. So does also strategic partnerships such as joint ventures and other horizontal linkages. The fifth generation model also puts an increased focus on the non-price factors such as the quality of the products, processes or services.[39]

3.2.2.1 Open innovation

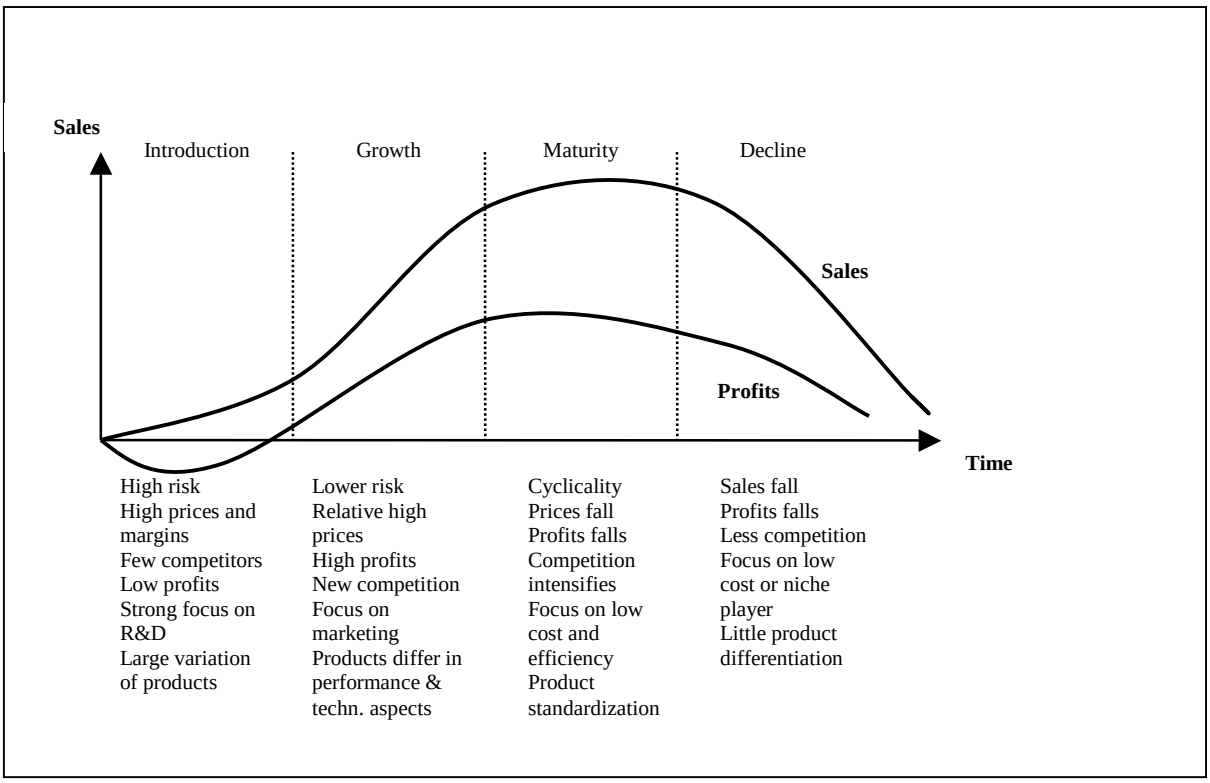
The fifth generation model by Dodgson is referred to as the open innovation model by Chesbrough which also implies that great inventions can come from both inside and outside the company. Chesbrough argues that open innovation is the new imperative for creating and profiting from technology and that the old system of exclusively relying on a large R&D unit for innovation is over. The main problem with large R&D units is that there is a significant dissatisfaction with their return on investment since approximately half of the R&D budget does not generate any new innovations. This is not a new symptom but today's shortened product life cycles make the problem much worse than in the past. Innovations also tend to be of an incremental nature, not advancing future business. Another problem is that even when the corporate labs come up with new innovations, many of them get stopped because senior management doesn't believe they fit into the current business model and therefore will not contribute to the business line. Companies thus finds it difficult to afford having inventions stuck on "the shelves". [40]

Large multinational corporations should subsequently search for new technologies and inventions on a larger scale outside the company. In today's business world, there is a lot of interesting and important work being carried out outside the corporate R&D. The best people within the internal labs need to connect with the intelligent people on the other side. This does not necessarily mean that all the work in the R&D units are wasted but it means, according to the open innovation model, that firms should put a larger focus on collaboration with other organizations such as universities and research institutes. The company must constantly scan the market and be updated on what is happening in the industry. This is thus costly and requires a lot of time and effort, especially for smaller firms with limited resources. According to Chesbrough however, the use of intermediaries for finding new technologies is a growing market and that can, even though still costly, to some extent offer companies an alternative. [41]

3.3 Mature markets

Industries and markets can significantly alter from one another much depending on in what market phase the industry and its co-elements are finding themselves. The product life cycle curve, also recognized by some as the grandfather for predicting an industry's evolution, defines four different market stages that an industry (or/and product/service) can pass through during its life cycle. Each phase in the curve represents different market conditions under which the companies in that specific industry will operate in; [42]

[39] Ibid
[40] Allio, J Robert, (2005) "Interview with Henry Chesbrough: innovating innovation"
[41] Ibid
[42] Porter, Michael E. (1980): *Competitive strategy: Techniques for Analyzing Industries and Competitors*



The product life cycle is a good tool for industry predictions but it is important to now that all industries do not necessary follow the s-curve. Some industries may pass over a certain phase and perhaps go directly from growth to decline. An industry can also move backwards in life cycle, being "revitalized" after a period of decline. The product-life-cycle curve has also endured some criticism since the duration of each stage can vary widely between different industries.[43]

3.3.1 The characteristics of a Mature Market

A mature market can be described as a market where the industry has moved from a more rapid growth stage into a more moderate and slow growth phase.[44] Being in a mature market is therefore quite understandably something that companies rarely strive after, at least not if they are interested in continuous growth and strong development possibilities. Managing a company in a mature market can thus be very frustrating, perhaps especially for the firm's that has a long history of revenue growth and are used to solid earnings.[45]According to Porter, whose theories on competitive strategy perhaps are among the most well known and well recognized in the existing management literature, it exist a number of signals that one can interpret in order to determine if the market is soon about to face maturity;

- *Slowing growth- increased competition for market share*. Firms find it difficult to maintain historical growth figures and subsequently start attacking the shares of its competitors. This demands a profound reorientation in a company's perspective as well as of its current assumptions of its competitive environment. Focus must further be on competitor analysis and it is much likely that the increased competition leads to price, service and promotional warfare.

[43] Ibid
[44] Ibid
[45] www.thedanielgroup.com (2005) *The challenge of Mature markets: Growth is a State of Mind*

- *The companies in the industry sells in a higher degree to already established, repeat buyers.* The product or service that the company is offering is becoming more of a commodity. Customers are often well aware of the product and both experienced and as well as buy the product repeatedly. The buyers focus is therefore more on deciding which brand to buy rather than purchasing the product at all. This requires new skills from the producing firm, not selling to a growing segment.

- *Greater emphasis on cost and services.* As a natural result of the slower growth, firms become more aware of their cost and have to be more service oriented in order to add value to their products. The cost awareness may also lead to increased investments in facilities and equipment in order for the company to stay on the competitive edge.

- *Overcapacity problem occurs.* A common problem when a market is about to face maturity is the phenomena of "overshooting". This problem occurs when the industry as a whole does not adjust to the slower growth and produce more goods than demanded. It becomes thus important for the firm to monitor its competitor's capacity and also to time its own capacity additions with precision. Avoiding overcapacity is crucial for success but it is often difficult and it result many times in price wars among the players in the market.

- *Changes in marketing, manufacturing, distributing, selling and r&d processes* The above mentioned functions are often undergoing a change during this period of transition to maturity. There are three different factors that drive those changes; the increased competition for market share, technological maturity and buyer sophistication. The firm is therefore faced with a need of either a change of direction of its functional policies or a strategic action that will lead the company on the right path for the future.

- *More difficult to find new products and applications* As the market growth slows downs, so does also often the number of new products being delivered to the market. The mature market therefore requires a new attitude towards research and product development since its ability to continue product change generally becomes more and more limited. Costs and risks with developing new products and services also tend to rise over the life cycle curve.

- *Increased international competition* Due to the technological maturity and product standardization that characterizes the market as it moves toward maturity, the international competition also have a tendency to increase and become more global.

- *Industry profits fall* The profits in the industry often fall as the industry goes from growth to maturity. The fall can be either temporarily or on a permanent basis and is caused by factors such as increased competition, more emphasis on market share, more sophisticated and experienced buyers and uncertainties about which strategic changes that are required from the firm in order to move in the right direction.

- *Dealers margins fall but their power increases* The increased pressure on the manufacturers due to the mature market increases even further the pressure on the dealers. Many of those subsequently have to give up their businesses, often before there have been any effects on the manufactures profits. This leads however eventually to increased barging power for those dealers that survive the "shakeout". The

manufacturers have fewer dealers to choose from and it thus tighten the competition among industry participants for dealers.

3.3.2 Reduced opportunities to establish a competitive advantage

It exist two main implications for a competitive advantage when a firm has reached the maturity phase. The first is that the number of opportunities to establish a competitive advantage is reduced. Secondly, these opportunities that still exist are shifted from differentiation based factors to factors based on costs. This can be viewed as a direct result of the previous mentioned characteristics such as slowing growth, increased buyer knowledge, technological maturity, product standardization and greater bargain power for the dealers. All those factors combined thus diminish the overall opportunities for the firm to create a competitive advantage. [46]

3.3.3 The cost advantage strategy

In order to stay competitive, Grant and others, argue that it is essential for a firm in a mature industry to have a cost advantage over its competitors. A firm's cost advantage may not always be of a sustainable nature, but it is nevertheless vital for a firm in a mature industry to be cost efficient. This is not the case in, for example, an emerging market where rapid growth can make up for a firms poor cost structure.[47]

Firms in mature industries therefore often strive after *economies of scale,* especially in capital intense markets and where new product developments constitute an important part of the total cost. [48] According to Buzzel and Gale, the association between ROI and market share is greater in mature markets than in emerging ones, indicating the importance of reaching economies of scale in mature industries. [49]

Low cost inputs are another cost driver that is considered to be important to obtain a cost advantage. Large multinational corporation sometimes have a disadvantage versus smaller corporations since they are "locked-into" high cost agreements with unions and so on, forcing them to produce goods for a relative high labour cost. The smaller corporations can then successfully undercut prices of the market leaders and stay competitive. It is also considered essential for companies in mature markets to have *lean overheads*, meaning that there is a need to have an effective organization with as few people as possible on central positions. Headquarters or central offices with a large number of employees are therefore something firms in mature industries should avoid. [50]

3.3.4 Cutting cost and be selective- how to turn around a mature business

Companies that find themselves in a mature market with low profitability often try to find a way out of that ungrateful position. It exist a few strategies that, according to Hambrick and Schecter[51], has proven to be successful in order for a firm to turnaround the business. One is that the firm uses an aggressive cost reduction strategy, e.g. reduce the R&D work, halt marketing expensive and cut back on investment in plant and equipments. Another is to focus

[46] Grant, Robert M. (2002): *Contemporary strategy analysis-concepts, techniques, applications*
[47] Ibid
[48] Ibid
[49] Ibid
[50] Ibid
[51] Hambrick, C Donald & Schecter, M Steven (1983) "Turnaround Strategies for Mature Industrial-Product Business Units"

on the profitable segments the company currently is working with and to keep to the firms strengths. A third alternative for the firm can be to make adjustments to the firms' present market position rather than making the company undergo a complete reorganization. This strategy also includes reduction in marketing and R&D costs.

Being selective and choosing the right customer segments seems to be a model that many authors advocate, including Grant. He states that "even unattractive industries may offer profitable niche markets" and that different segment within an industry can show very different profitability. Thus, he argues, that the right segment selection can be the difference between a profitable and non profitable company in the same industry. He further stresses that the next stage in this segment selection is for mature companies to go down to the level of the individual customers. The rich information technology of today makes it in many cases possible to sort the most profitable customers from the others. Grant implies that the companies have a few numbers of customers that makes up for the vast majority of the firms profit.[52] This is something that Porter also has discussed, stating that the mature firm should focus on selling more products to its already existing customers.[53]

3.3.5 Differentiation- the way to stay competitive in the long run

Obtaining a price premium versus ones competitors is something that most companies in mature industries are hoping to do. Creating a cost advantage could be one possibility for the firm to create such a premium. However, cost leadership is known to be difficult to sustain, especially in mature markets with international competition. Moving away from competing on price is therefore particularly attractive in mature industries since this would allow the firm to be less exposed to the fierce competition. A firm can create a differentiation advantage versus its competitors by for example focusing on quality, product innovation and/ or a strong brand image. This will hopefully shift the customers focus on price and thus help the company to achieve success. Creating such an advantage in a mature industry is however known to be very difficult due to constraining factors such as the high degree of standardized products and the price-sensitive customers. Grant therefore argues that creating meaningful differentiation represents one of the greatest challenges to managers in mature industries.[54]

3.3.6 Differentiation in mature industries requires innovation

The need for finding a differentiation strategy is rarely as high as it is for a company finding itself in a mature industry. Products and offers are becoming commodities, growth rate is slow and competition is tough. The request for innovation is therefore large; companies are forced to find new approaches and ways of doing business. According to Grant, it exist a low possibility of technological-based advantages to achieve in this phase of the industry-life-cycle, thus explaining why mature markets tend to have a low pace of technological change. Instead, innovation takes place in terms of new marketing methods, new product design, new customer service and new ways of organizing the firm. Doing business in this new way is referred to as "strategic innovation" and can be seen as a third phase of innovation in the innovation cycle illustrated below;[55]

[52] Grant, Robert M. (2002): *Contemporary strategy analysis-concepts, techniques, applications*
[53] Porter, Michael E. (1980): *Competitive strategy: Techniques for Analyzing Industries and Competitors*
[54] Grant, Robert M. (2002): *Contemporary strategy analysis-concepts, techniques, applications*
[55] Ibid

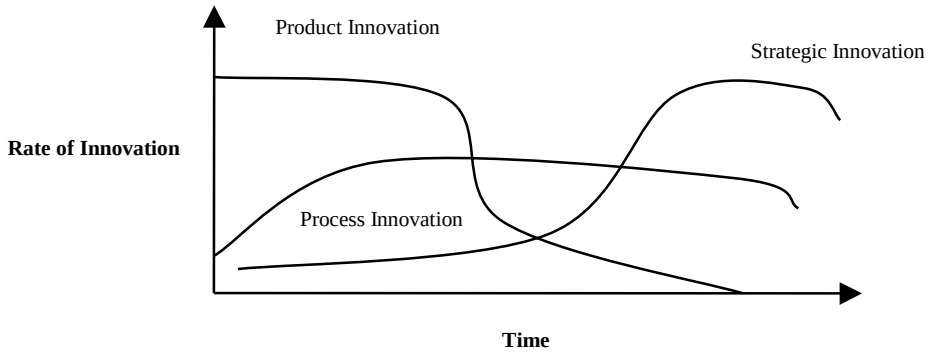


Figure: Innovation life cycle (Grant p 373)

The strategic innovation is a new way of doing something, for example when Dell Computer redefined the value chain in the computer industry and started to focus on service and a new way of distributing its products to its customers. The firm has to be very good in coming up with new and unique strategic initiatives since that is exactly what each strategic innovation requires. It is thus difficult to use a systematic approach. The strategic innovation can also be a result of the redefinition of markets and different segments. For example, finding new customer groups has in the past proven to be very successful, something that Ryan Air did when extending the air travelling possibility to ordinary families. Adding new products and services to an existing business is another type of strategic innovation, exemplified by today's gas stations that have been turned into small grocery stores.[56]

3.3.7 Rejuvenation is the great challenge for the mature enterprise

It takes a lot of work and effort for a mature company to be able to change their way of doing business and to reorganize the firm so that the company can create new options and possibilities for strategic innovation. Many organizations are used to a specific way of working and top management can be both resistant towards change as well as trapped in the industry's conventional way of thinking. Some authors therefore argue that established firms need to embrace radical change in order to break away from their traditional mindsets. They believe that the evolutionary change is not enough and that the role of strategy should be to foster revolution by changing the firm's strategy making process. This can for example be done by allowing younger people further down the organization to take part of the strategy decisions and by reducing some of the top management's exclusive rights to strategy formulation. [57]

Hence, to be successful with strategic innovation as a mature enterprise, it requires that the firm has an open mind towards the industry. The firm needs to realize that the industry sets a context, not a prison for the firm. This was concluded in a case analysis conducted by Baden Fuller and Stopford [58] who stresses that "maturity is a state of mind" and that every business has the possibility to rejuvenation. It requires though a sequence of actions in the firm, for example to stimulate the top management's commitment, replace or eliminate outdated and unnecessary activities and control functions and to create a strategic infrastructure that can implement the new vision. The study further indicates that strategic innovation is the basis for competitive advantage in markets where there seem to exist little potential for creating a competitive advantage. Being able to come up and to identify an strategic innovation is, as

[56] Grant, Robert M. (2002): *Contemporary strategy analysis-concepts, techniques, applications*
[57] Ibid
[58] Baden Fuller, Charles & Stopford, John (1992) *Rejuvenating the Mature Business*

indicated earlier in this section, something that requires a firm with an entrepreneurial spirit where experimentation is accepted and where the firm has the will and ability to learn. [59]

3.4 Organizational structures

According to the Oxford dictionary, an organization as a whole is defined as; *"An organized body of people with a particular purpose, e.g. a business".*[60] Two very central terms in the organizational context are centralization and decentralization, which normally are used to describe the level or degree of hierarchy that the company structure enables. A centralized organization is an organization that tends to have a high degree of hierarchy since the structure consists of a "top-to-bottom" character. The central organization can thus be defined as;

"an organization in which power and decision-making authority are concentrated or centralized in the hands of a small number of senior managers and only limited authority and power is delegated to subordinates. "[61]

The *decentralized* organization is characterized by the opposite, meaning that it is less hierarchical and that the structure is more horizontal than vertical in its line of command. A decentralized organization is defined as;

"an organization in which decision-making power and authority is devolved to the operating units." [62]

The decision between implementing a centralized or decentralized organizational structure can depend on many different parameters as, for example, the size of the firm and which type of industry the organization operates in. A common belief is that if industry conditions are such that strategic decision making is needed, or if it is important to coordinate activities internally in the company, a greater degree of centralization is to prefer. However, in a rapidly and changing market, or where responsiveness to local conditions is important, a decentralized structure is normally what a company should pursue. [63]

It is also important to consider the cost and benefits of the two alternatives and how the choice will affect decision management and control. In terms of cost and benefits, decentralization is more effective in taking care of local specific knowledge since it authorizes local managers to make their own decisions and thus promotes a more rapid decision making. That in turn reduces the companies overall information transfer costs.[64] On the other hand, the downside with the decentralized organization is that the firm has to spend more time on coordinating decisions and that its agency costs subsequently tend to rises. However, those costs can be limited by the direct monitoring from the principal as well as introducing incentive compensation.[65]

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[59] Ibid
[60] Oxford Dictionnaires: www.askoxford.com
[61] Westburn Publishers Ltd Marketing dictionary: www.westburn.co.uk/tmd/
[62] Ibid
[63] Brickley, James, Smith, W Clifford & Zimmerman; Jerold (2004) *Managerial Economics and Organizational Architecture*
[64] Ibid
[65] Brickley, James, Smith, W Clifford & Zimmerman; Jerold (2004) *Managerial Economics and Organizational Architecture*

As stated earlier, finding the optimal allocation of the decision structure in a firm depends much on the market environment. This is something that has been discussed by Mintzberg, whom stresses that an organizations structure is largely determined by the variety one finds in its environment. According to Mintzberg, environmental variety is determined by both environmental complexity and the pace of the change, illustrated by the figure below; [66]

The trend over the last decennium has been towards an increased decentralization of organizations. This is much attributed to the greater need of improved quality, better customer service and higher efficiency which in turn has been provoked by the increased degree of global competition and deregulation.[67]

Another factor that affects the organizational structure is the degree of product diversification that characterizes the firm and the market. An organization which successively gets a more diversified portfolio of products across many markets will in general move towards a more decentralized structure while a firm that strips back to their core competencies and reduces their product offerings, will move the opposite direction towards a more centralized organization. [68]

3.4.1 Structuring the Business Unit as a Profit center or a Cost center

Large multinational corporations are often built up on a number of different business units, all contributing in their own way to the firms overall performance. In a fairly simplistic way, depending on how the business units report its financial results, those units can be categorized as either profit centers or cost centers. A business unit is a profit center when it has it owns revenue and profit targets, very much operating like a small business.[69] It is expected that that this unit, either by the sales of goods or services, will generate a profit for the company. A cost center on the other hand, is a unit within the company that opposite to the profit center has no expectations to turn a profit and thus only generates expenses for the firm. [70] This could typically be the human resource unit, which objectives are to hire, train and support the companies' employees and therefore does not earn a profit.[71]

In large companies and particularly in manufacturing such, it has become a relatively usual occurrence to divide the firm into small pieces. Those "pieces" are then governed as profit centers, each obliged to compete for its business. In this way, all units have to determine their own method of operation and how to show a profit. It may exist internal agreements between the different units, set up by the corporate management in order to make sure that the units will continue to work together within certain or many areas. A company implicating this

[66] Berkley University: http://ist-socrates.berkeley.edu/~fmb/articles/mintzberg/
[67] Brickley, James, Smith, W Clifford & Zimmerman; Jerold (2004) *Managerial Economics and Organizational Architecture*
[68] Ibid
[69] Hoffman, T "Profit centers vs. Cost centers": www.computerworld.com T (2/8-1999)
[70] Encyclopedia of Business "Profit Centers" www.referenceforbusiness.com (20/12-2005)
[71] Hoffman, T "Profit centers vs. Cost centers": www.computerworld.com T (2/8-1999)

structure with profit centers can find itself operating more as a small business rather than a large corporation.[72]

Some literature intimate that to encourage rapid and important information, companies move toward organizational structures in which authority over strategy and operations is designated to profit centers. [73] This transformation of authority to profit centers managers has recently been criticized in a Dutch study, which claims that their empirical findings show that such a structure is likely to impair the cooperation among profit centers managers.[74] The profit center structure has also been criticized for reducing the quality of internal products, mostly involving units and departments concerned with supporting other units in the firm, like the IT-department and the R&D function.[75] Representatives of that criticism subsequently believe that the cost center approach is more suitable for those units.

However, the profit center structure is know to have many benefits, e.g. the rapid decision making process mentioned earlier. Some companies therefore use internal billing systems for their supporting units, arguing that it reduces excess capacity and that it is cost effective.[76] One manager of a company that switched to the profit centre approach argues that establishing profit centers and generating daily profit/loss statements, has allowed tem to better identify, and correct, their weaknesses.[77] It exist thus both benefits and drawbacks using either a profit or a cost center structure. Ideal is perhaps to have profit centers closely aligned with other parts of the organization in order to reach company goals, something that has been argued for in the case of IT-departments.[78]

3.4.2 The trade- off between exploration and exploitation

It is known to be difficult for a company to search for new lucrative markets while at the same time improve the existing business. The relation between the exploration of new possibilities and the exploitation of old certainties can therefore best be described as a complex one that in many cases have created a decision dilemma for the firms. This is much due to the fact that the characteristics of exploitation and exploration are very different. Exploration is something that represent terms such as risk taking, search, innovation, variation, experimentation, flexibility and discovery. Exploitation on the other hand, is better captured by terms such as efficiency, selection, implementation, refinement, choice, production and execution. [79]

It has in the organizational learning theory become evident that it is difficult to ameliorate an existing technology and at the meantime invent a new one. Levitt and March suggest that the exploration of for example new technologies reduces the pace in which the existing ones are improved while in the same way refinements in existing procedures make experimentation with others less attractive. [80] It is however also made clear that the exclusion of either exploration or exploitation in an adaptive system will cause a suboptimal system since both variables are very much needed. A company that spends all their time on exploring new ideas

[72] Encyclopedia of Business "Profit Centers" www.referenceforbusiness.com (20/12-2005)
[73] Grant, Robert M. (2002): *Contemporary strategy analysis-concepts, techniques, applications*
[74] Bouwens, Jan & Lent van, Laurence (2004) "Assessing the performance of profit centers managers"
[75] Hoffman, T "Profit centers vs. Cost centers": www.computerworld.com T (2/8-1999)
[76] Encyclopedia of business, Profit Centers www.referenceforbusiness.com (20/12-2005)
[77] Business Solutions Magazine Jan Issue 1998:
http://www.businesssolutionsmag.com/Articles/1998_01/980106.htm
[78] Hoffman, T "Profit centers vs. Cost centers": www.computerworld.com T (2/8-1999)

[79] March, G James (1991) "Exploration and Exploitation in Organizational Learning"
[80] Ibid

and technologies will be likely to find out that they exhibit too many underdeveloped new ideas and not enough distinctive competence. A company entirely focusing on exploitation will experience the opposite scenario with too few new projects and a suboptimal stable equilibrium. [81]

One problem with finding an appropriate balance between exploration and exploitation is what March refers to as the "vulnerability of exploration". It highlights the problem that the positive returns from exploration are systematically much less certain, more remote in time and further away from the locus of action than those from exploitation. The feedback process is also in favor of exploitation since it offers faster, better and more precise information to the consequences of its action than it does for exploration. Basic research is more difficult to predict the outcome for and it can take years before the results of one's actions can be measured. It becomes thus more convenient and less risky for the company to refine already existing products and to work with product development rather than search for new ideas and markets. This leads consequently to more and more focus on exploitation which advantages cumulates on the behalf of exploration. All the positive feedback from work concerning exploitation can result in path dependency and lead to a suboptimal equilibrium which in turn seriously can hurt the company's future performance. March is critical to this development and states that "reason inhibits foolishness; learning and imitation inhibits experimentation". [82]

Both exploration and exploitation are thus essential for a firm and finding the right balance between the two becomes fundamental in order for the organization to be successful. A problem is that both are competing for the same scarce resources and that the firm consequently has to choose how to best allocate them. What is good for the company in the short run does not necessarily have to be good for the company in the long run. In the same way can one decision be good for one part of the organization but negative for another. It becomes therefore relevant to understand the relation between exploration and exploitation and their impact on the firm's future performance. [83]

3.4.3 The Ambidextrous organization

According to one of the latest theories in organizational structure, developed by O'Reilly III and Tushman most companies need to maintain a variety of innovation efforts in order to stay competitive over a longer period. They have identified three different types of innovations; *incremental*, *architectural* and *discontinuous*. The *incremental* innovations are very important for the firm since they constantly must pursue and ameliorate the existing products and innovations offered to its customers. Those innovations will serve to add value for the customer. The organizations also have to make *architectural* innovations, meaning that they will use advances in technology and processes to "fundamentally change some component or element of their business" (can be done by for example a bank that apply the benefits of the internet by shifting their call center to a low cost country like India). The third innovation type is called *discontinuous* innovation and is earlier in this thesis (section 3.2) referred to as radical innovations. As the reader might recall, radical innovations typically alter the rules of competition in an industry, often outdating older products or business processes.[84]

[81] Ibid
[82] Ibid
[83] Ibid
[84] O'Reilly III, A Charles & Tushman, L Michael (2004) "The Ambidextrous Organization"

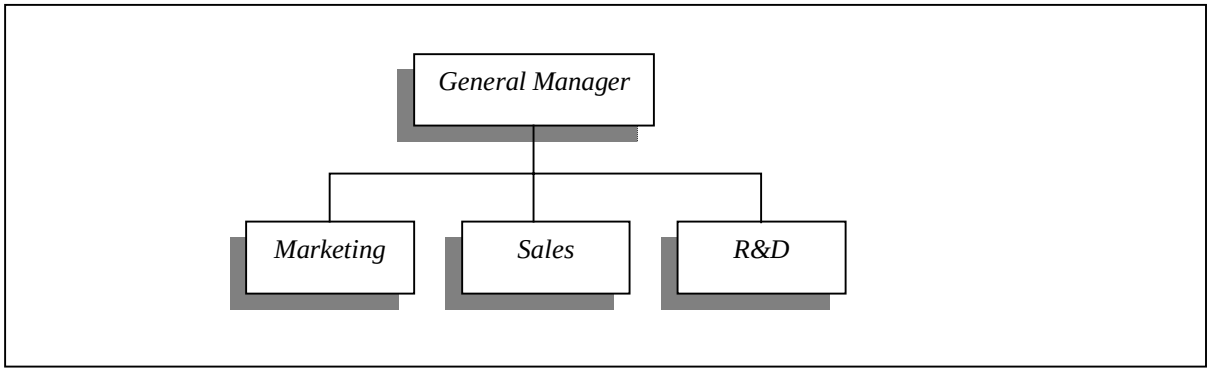
O'Reilly and Tushman argues that all the three innovation types can have different target groups; some focusing on reaching the current customer base, other targeting an already existing market but outside the current customer base. Other types of innovations can reach a market that until now have been undefined (this would for example be the case with the market of downloading movies or music from the internet). The concept is perhaps better illustrated in the matrix model which was developed by the authors;

	Incremental Innovations	**Architectural Innovations**	**Discontinuous Innovations**
New customers			
Existing Customers			

Figure 3.4.3 "Map of Innovation"

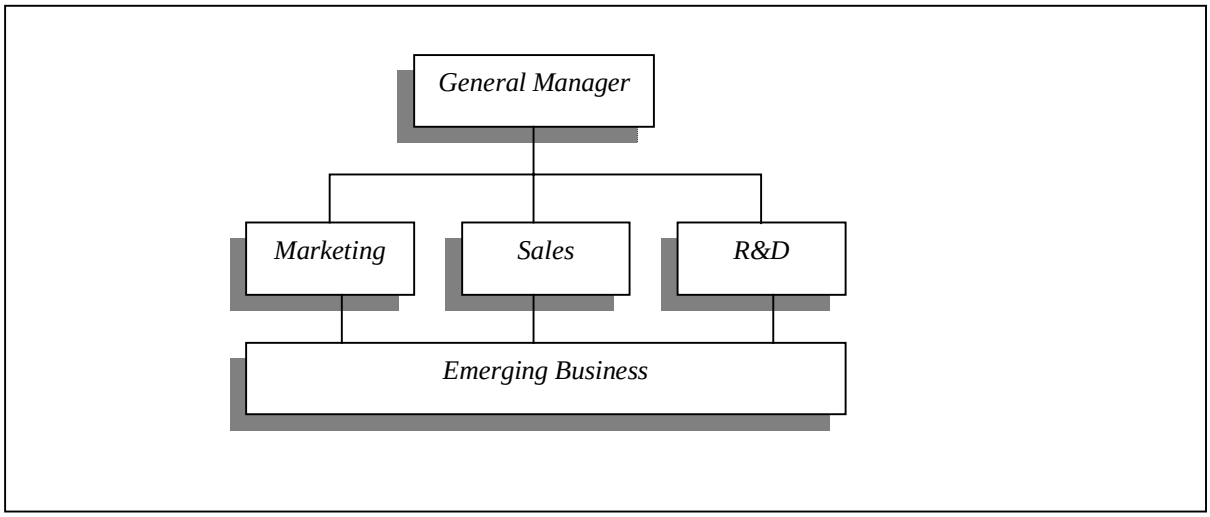
The "Map of Innovation" served as an important tool during the extensive research that was carried out to investigate how different companies pursue innovation. The research studied how well organizations performed when they attempted to simultaneously quest for modest incremental innovations as well as more radical or "breakthrough" innovations. The findings showed that the organizational structure between the companies differed and that the structure chosen by the organization had a significant impact on how well the company performed. Four distinct approaches of organizing the breakthrough projects could be identified in the research;

Functional Design



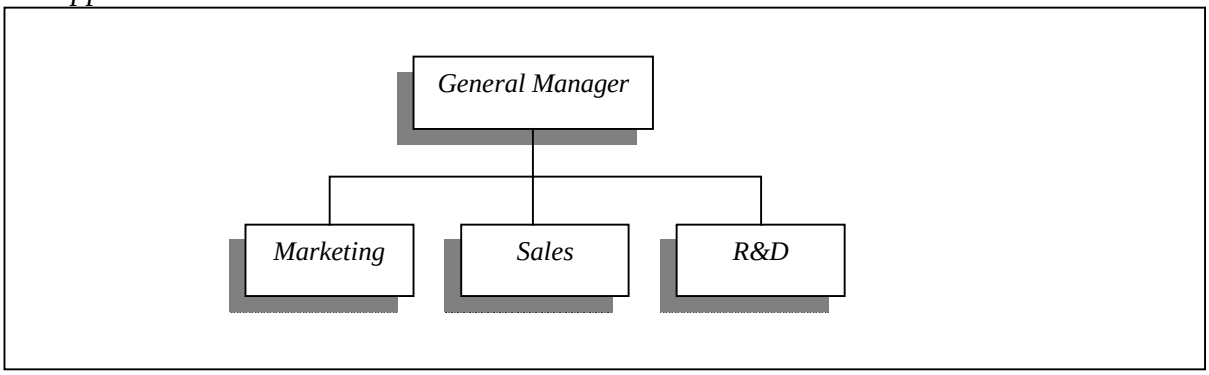
The functional design represents the most traditional way of organizing a company. In this approach, the new business project is integrated in the existing management structure.

Cross-functional teams



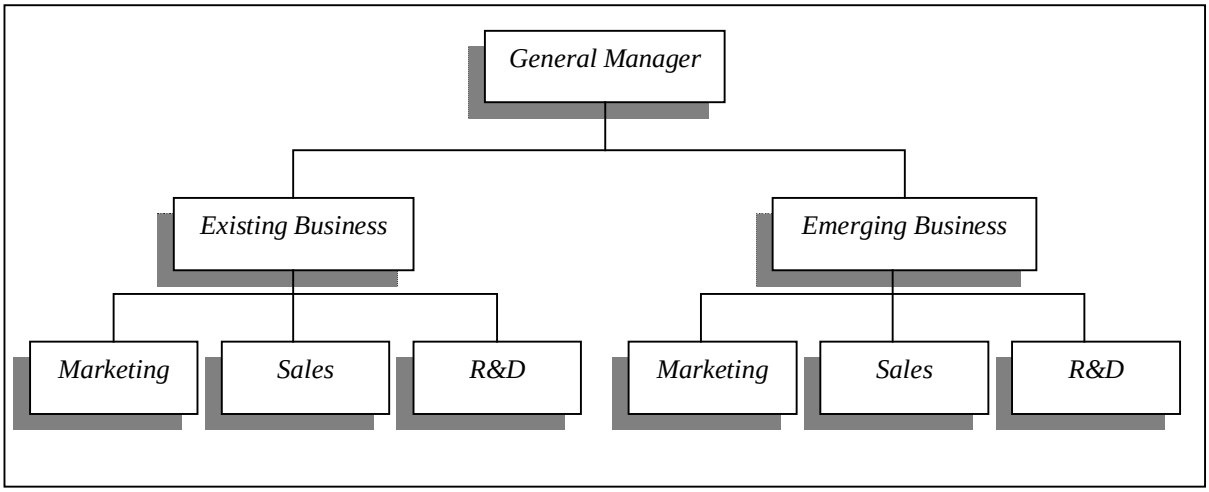
The cross-functional teams organize the emerging business as a group within the established organization but outside the existing management hierarchy.

Unsupported teams



The companies using the organizational structure according to the unsupported teams model, set up the emerging business as separate function outside the established organizational and management hierarchy.

Ambidextrous organizations

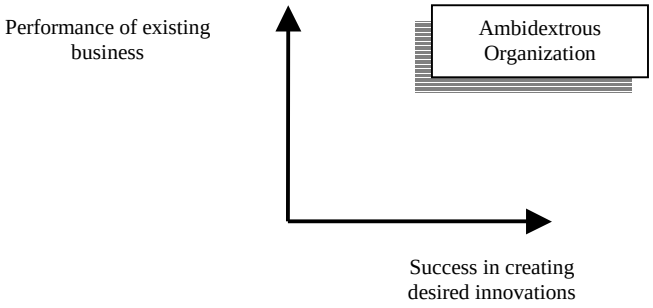


The companies using the Ambidextrous model, sets up the emerging business as a structurally independent unit. In this way, the unit has its own structure, processes and culture but is integrated into the existing management hierarchy.

The empirical results from O'Reilly and Tushman's study indicated that is fully possible to focus on core business while at the same time exploring new grounds and still be successful. This is known to be very hard to accomplish, something that for example Davila and al argues in their book "Making innovation work". They stress the fact that a large number of established organizations have struggled and failed in their attempts of integrating innovation since many components of innovation are ruled out or marginalized by the mainstream organization. [85] Some authors like Campell et al, goes even further and argue that radical innovations can not be successfully developed within a company. [86]

3.4.3.1 The axis of performance and the benefits of cross-fertilization

The research conducted by O'Reilly and Tuschman measured two "axis of performance"; one which determined how well the company was performing in the existing business in terms of results, the other studied how successful the company was in creating the desired innovation, measured in terms of actual commercial results of a new product or the application of practical market or technical learning;



The findings clearly showed that the companies that chose to organize their new emerging businesses according to the ambidextrous organizational structure by far outperformed the other three organizational designs, both in terms of result for the existing core business (current business) as in terms of success of the new business. This became particularly evident for companies that shifted from initially using another of the three forms to organize their emerging business initiatives, to the ambidextrous structure.

The answer for explaining why the ambidextrous structure was so successful in simultaneously handling the current as well as the emerging business is much attributed to the

[85] Davila, Tony, Epstein, Mark & Shelton, Robert (2005) *Making Innovation Work: How to manage it, measure it, and profit from it*
[86] Campell, Andrew; Birkinshaw, Julian, Morrison, Andy: van Basten Batenburg, Robert (2003) "The future of Corporate Venturing"

fact that the form allows so called "cross-fertilization" among the units. This means that the project-team responsible for the emerging business has its own structure but that it due to the interaction at management level can exchange valuable information and gain acceptance for its ideas in the top part of the organization. Important resources from traditional units such as customers, cash, expertise and talent, can thus be shared between the new and the traditional business without being "cross-contaminated". The later expression relates to the fact that the units still are separated, giving the new and emerging business the freedom to create its own distinctive structure, processes and cultures. This is important since it otherwise is a risk that the new business can be disturbed and "over-influenced" by the existing way of doing business. This theory is supported by others that to some extent believe that it is impossible or at least very difficult to innovate successfully within the structure of an already established organization.[87]

The separation is also viewed as positive since the current business units can concentrate on their own work, not having to allocate time and resources on new and often less reliable projects. Instead, they can and should, focus entirely on ameliorating their processes, products and services.

3.4.3.2 Criticisms of the theory Ambidextrous organizations

The study showed that the Ambidextrous organization structure can be successful in both exploiting and exploring. It is however important to notice that a company that fully devotes all its resources to the existing core business, and not seeking to find new breakthrough innovations, might very well outperform a company that tries to do both simultaneously, at least in a short term perspective. This was not taken into account in the study since it assumed that the companies investigated wanted to have a long term focus with the ambition to be profitable over many years to come.

3.4.4 Constructing a radical innovation ability

In times when profit margins and growth alternatives seems to erode, large and established firms have to look elsewhere than just to the existing markets in order to find the rejuvenation so desperately wanted. Many companies have realized the importance of using radical innovation as a mechanism for growth and thus started to explore the possibility of creating a radical innovation capability inside the organization. [88]

However, creating and building renewal engines and other ways for continuously organic growth, is something that many companies have tried to do but failed. Whether if called corporate venture organizations, incubators or radical innovators hubs, these are organizational units occupied with finding the new and potentially big source of growth for the large and sometimes stagnant companies. Still, history shows that few of those internal organic growth units neither have lasted very long, nor had a significant impact on their companies' renewal or growth pattern. [89]

Thus, inevitable, the question that has been discussed earlier in this thesis, whether large firms really can develop and commercialize radical innovations, turns up again. According to Ayers and Collarelli O'Connor, it is not a question about *if* they can, it is simply something that they *must* be able to do. The authors believe that "*it is in the companies and societies best*

[87] Davila, Tony, Epstein, Mark & Shelton, Robert (2005) *Making Innovation Work: How to manage it, measure it, and profit from it*
[88] Colarelli O'Connor, Gina & Ayers, D Alan (2005) "Building a Radical Innovation Competence"
[89] Ibid

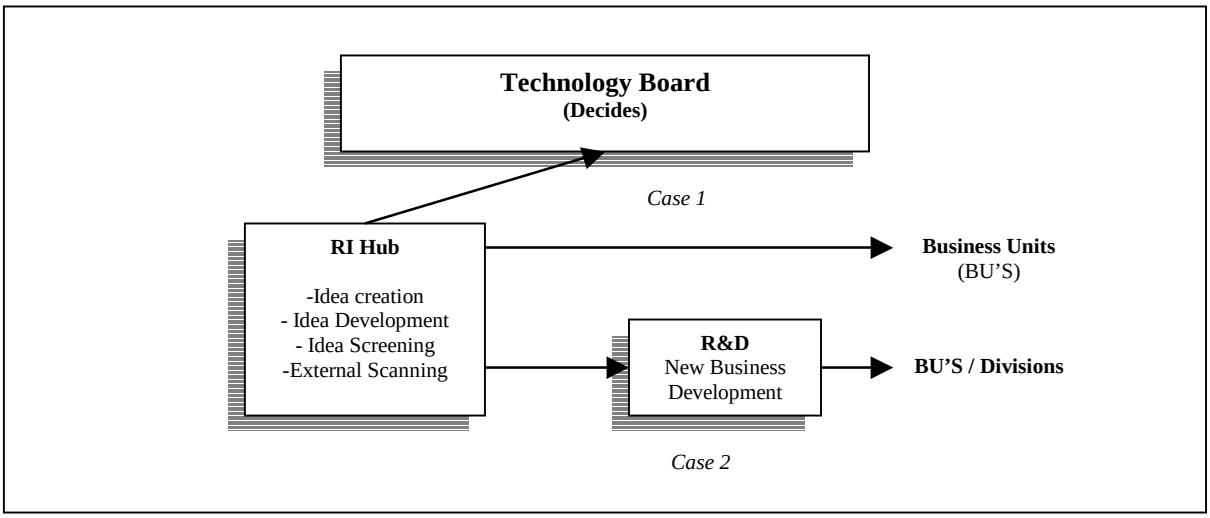
interest" to understand how this can be done. They further argue that most of the radical innovation hubs, or new venture groups, only last an average of 4-5 years before being cut off. This is much too early and happens just when the venture groups are coming up to speed on the appropriate tools and mechanisms to use. About a generation later, the projects are resurrected again but then it is too late, the learning has been dispersed. [90]

3.4.4.1 Managing the set of activities needed

The work conducted by Ayers and Colarelli O'Connor, and which is still being carried out, has so far shown some very interesting results that can give an important insight to how large and established firms can build sustainable radical innovation competencies. The research studies 12 large multinational firms that all have expressed a strategic intent to develop a radical innovation competence, whatever organizational form it might take. In the study, radical innovation has been defined as "*the commercialization of products and technologies that have strong impact on 1) the market, in terms of offering wholly new benefits, and 2) the firm, in terms of its ability to create new business."*

At this time of the research, it is too early to draw any final conclusions about the so called key success factors, but it is possible to conclude that the organizational infrastructure for creating radical innovation competency vary across firms. Four distinctively different models can be withdrawn;

Idea Generators



The Idea Generators model illustrates the fact that in many companies, the RI systems begins in an idea generation group (RI Hub in the model). The initial mission is that this group is set to oversee the radical innovations coming out from the R&D department. However, the problem is that group often realizes that there is a lack of RI inventions coming from the R&D department and the group has thus initially to focus on;

- Educate the company to "think big" and to assist in building those competencies internally, e.g.;

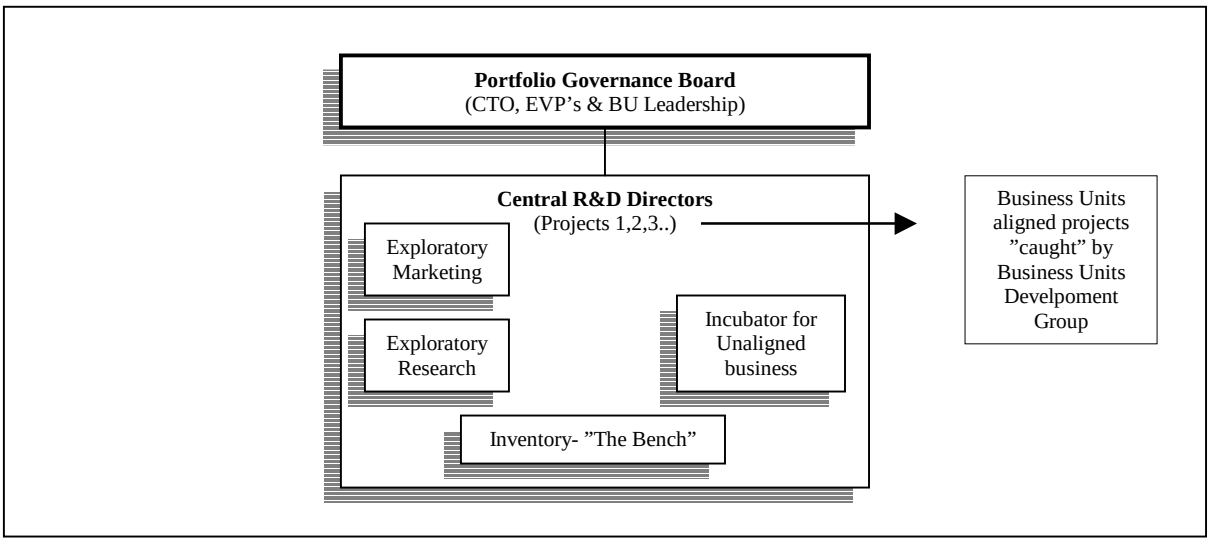
[90] Ibid

- Arranging workshops, brainstorming sessions and so on.
- Send out "scouts" or internal members of the staff to search for new ideas and innovations outside the company.

The RI hub's gradually develops their own skills and systems on how to evaluate, refine and develop "raw" ideas into bigger concepts. New ideas are typically evaluated and selected by a board consisting of persons representing the technological community of the firm, much due to that they often report directly to the CTO.[91]

As new ideas eventually start to arrive, they get distributed by the RI Hub to the different divisions in the company where they are most aligned in terms of business model and market. However, a problem with this scenario is that the concerned divisions/units, often find it difficult to take care of those fairly unprocessed ideas. The further away the new concept is from the divisions' strategy, the greater is the chance that the division not will invest in it. This lack of investment creates frustration in the RI Hub which consequently reacts by developing and expanding its incubation capability. In that way, the RI Hub tries to expand its knowledge to white space and to handle multi-aligned opportunities. [92]

R&D Management Systems



The model identified as R&D Management Systems, seems to apply to very large firms where any single division is the size of many large firms combined. Because of their size, those companies using this model implied that their entire central R&D unit was working with radical innovations. The central unit is thus responsible for finding the new and "revolutionized" innovations that typically can alter the rules of a market. The divisional R&D units are therefore set to "dress" the projects that are aligned with the divisions' short term and thus more immediate needs. However, even long terms goals can be accounted for.

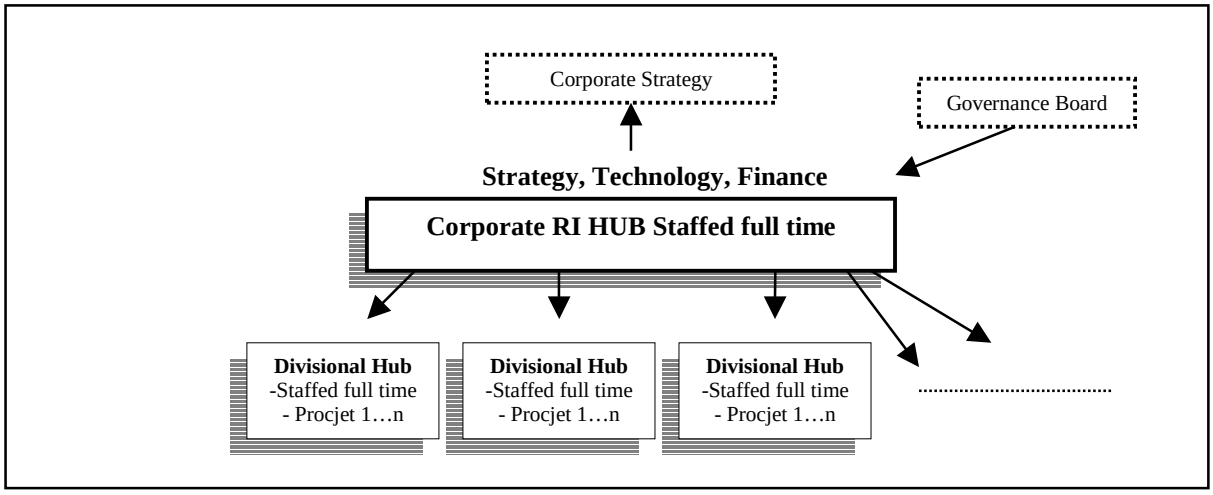
During the study, small units like the exploratory marketing group emerged within some companies central R&D's. The idea behind the exploratory marketing group is that they should gather important information and learn about markets that the company does not know much about. They then use the existing knowledge within the company (e.g. earlier

[91] Colarelli O'Connor, Gina & Ayers, D Alan (2005) "Building a Radical Innovation Competence"
[92] Ibid

technological research within R&D) to come up with proposals for new business. Those proposals are then sent to what is referred to by the authors as "the bench", which really is an inventory for new potential projects. The projects stays at the bench until someone (or someone's) with the right set of skills becomes available among the staff. The idea or project is then "activated".[93]

The main advantage of the bench system is that it reduces the fear of failure among the employees. Those companies working in this way also have individuals responsible for incubating novel business that does not fit in the organizational structure as of that moment.

Self similar model

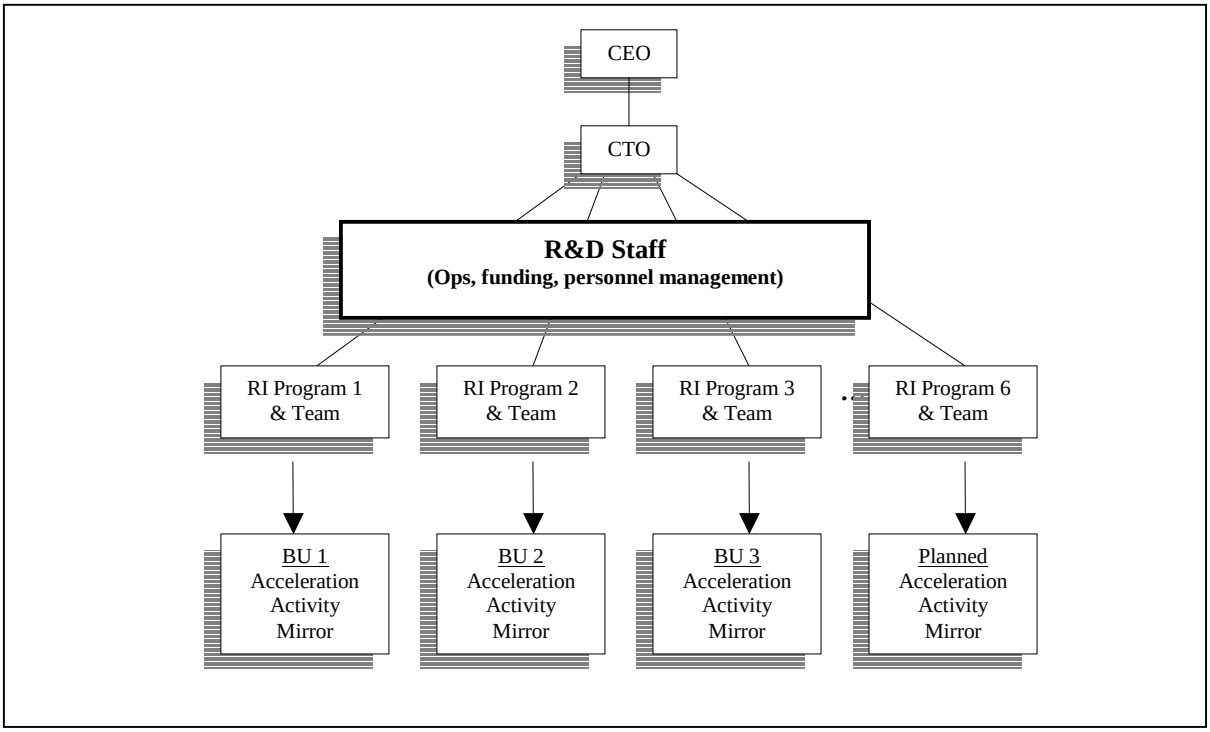


The self similar model is not very well represented in the research but is still interesting in a larger context. This is a structure where the Radical Innovation infrastructure is modeled at the top of the organization and then imitated down the rest of the organization.

A senior leadership team is composed on a corporate level, consisting of the Chief Strategy Officer, the Chief Technology Officer as well as the Head Controller of the company. Together, this team spends a large amount of their time encouraging, coaching and helping 10-15 fledgling new radical innovations businesses that seems to have a potential of influencing multiple divisions across the company. This structure is then imitated and applied on each division, more specifically on projects that have a possibility of influencing the division internally.[94]

Mirrored model

[93] Colarelli O'Connor, Gina & Ayers, D Alan (2005) "Building a Radical Innovation Competence"
[94] Ibid



The last model could perhaps better be referred to as the "Acceleration model", due to its particularity in focusing on a very fast development of the infrastructure of a new business activity. Initially, new radical innovation projects are identified, selected and integrated close to the central R&D function. However, the difference from many other organizations is that companies choosing this structure simultaneously "distribute" radical innovation projects to specific divisions that appear to be ultimate for the given project. In this way, the firm builds a complementary capability, i.e. the acceleration part, long before there is a product even near being ready for the market. Each new project is also appointed a general manager who has the mission to build up the new infrastructure and search the market for potential acquisitions and opportunities.[95]

3.4.4.2 The competence set for radical innovation

According to the current study being performed by Ayers and Colarelli O'Connors, it exist a set of three competencies that together are vital in determine the firms overall radical innovation capability;

Discovery

The discovery capability is about the organization being able to create, recognize, elaborate and articulate opportunities. For this, the company must asses over two sets of exploratory, conceptual skills, i.e. scientific discovery and being able to search for opportunities outside the firm. Many tend to think of discovery activities as of internal focused laboratory research but it can and should, at least in a radical innovation capability context, involve hunting for ideas and opportunities both inside and outside the firm, preferable simultaneously. This can for example be done by investing in small, promising start up companies or perhaps licensing a new technology.

[95] Ibid

Incubation
Having an incubation capability means that the company will be able to develop the identified opportunities in the discovery phase into real business propositions. Those business propositions are described as "working hypothesis" that will verify what the specific innovations technology platform can render capable in the market, what the market space finally will look like and not least what the business model will be.

This incubation phase involves quite naturally a lot of testing and experimentation since it is of great importance to make sure that the business proposition has a future potential. It is thus crucial that the companies have a good knowledge in experimentation if they seek to be successful in this phase. Those tests and experiments can be carried out both on a technical level as well as on a market level, preferable simultaneously, gaining understanding of the market and ensuring that the business proposition match the strategic intent of the firm.

Acceleration
The acceleration phase is about "ramping up" the radical innovation opportunity to a point where it is so strong that it eventually can stand on its own when integrated into the existing organization. To do so, the company has primarily to invest in activities that can help build up the business and the infrastructure that is very much needed. They also must be able to focus and respond to opportunities, turning early customer's leads into predictable sales forecasts and go from top line revenue to bottom line profitability.

This last phase is more about exploitation than discovery or incubation. Companies being successful in the acceleration part typically have a separate group of staff members set aside to work with those acceleration activities. Most important perhaps, is that they are judged on metrics like growth rather than profitability.[96]

[96] Ibid

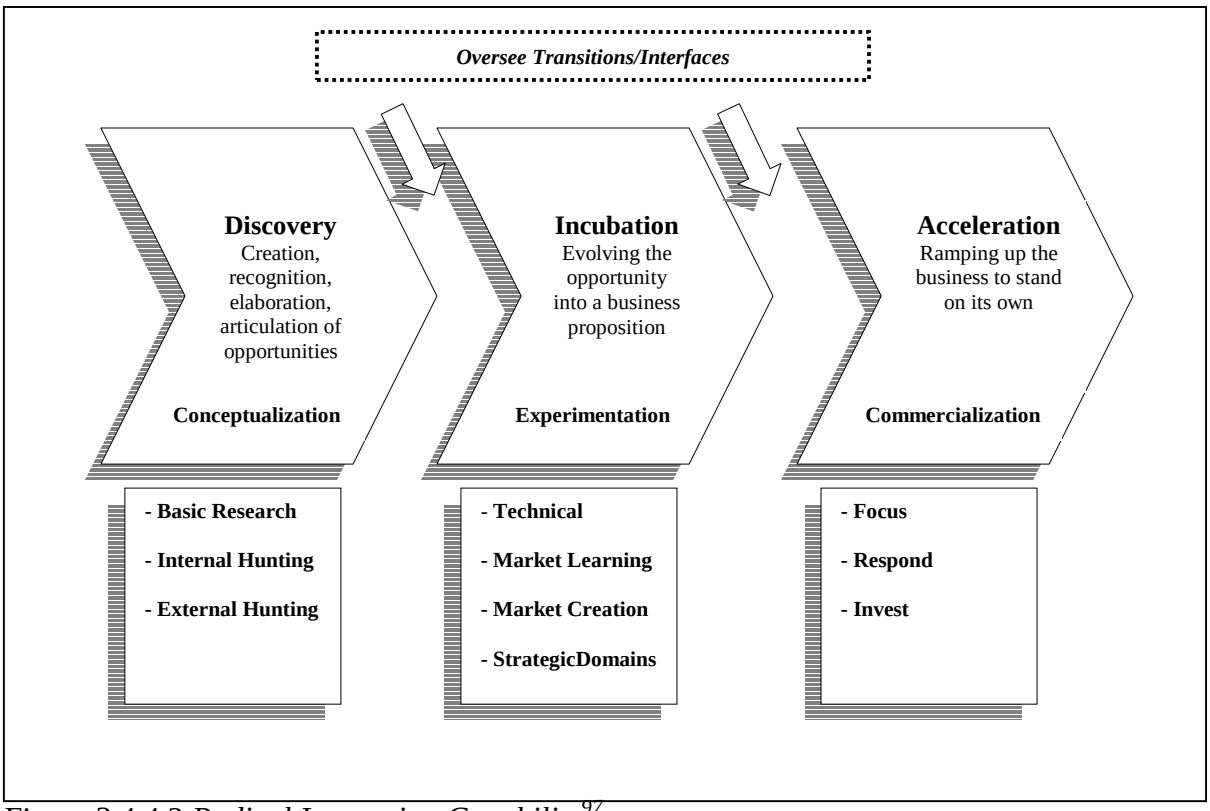


Figure 3.4.4.2 *Radical Innovation Capability*[97]

3.4.4.3 Linking the competencies tightly together

Most firms in the study distinguish themselves at one or two of the competencies discovery, incubation and acceleration. However, there are a few companies that govern the entire competence set but nevertheless are struggling in reaching an optimal productivity for their radical innovation. The reason for that is foremost the lack of a tight linkage between the competencies, something that is vital for being successful. Each activity has to be tightly coupled together and perceived as an integrated system by everyone in the firm, first then the system will operate in an optimal way. [98]

3.4.4.4 The firm's culture and history will affect the Radical Innovation system

The existing culture within a company seems to have an impact on which type of radical innovation system the firm will apply. The research that has been conducted indicates that nearly all investigated firms suggest that a cultural change is needed before the same firm will be able to work with radical innovations. Comments like; "we have not been oriented to step-out innovation here for a long time. Our culture does not allow it" where common among the interviewees. Interesting enough however, is that the authors of the report has found out that the cultural change already is happening within the firms, although the have very different approaches.[99]

[97] Colarelli O'Connor, Gina & Ayers, D Alan (2005) "Building a Radical Innovation Competence"
[98] Ibid
[99] Ibid

3.5 Summary of the theoretical framework

The theoretical framework provides the reader with a synthesis of the different theories that has been discussed in this chapter.

In terms of innovation, it seems two exist two main groups that legible differ from each other. Those two types are in this paper referred to as incremental and radical innovations. The set of capabilities required in order for the organization to drive and encourage innovation is thus much affected by the type of innovation the organization is searching for. However, it appears as if the characteristics of the organization itself have the major impact on what type of innovation the company will innovate. The factors that drive and hamper incremental and radical innovation are thus likely to depend on a number of factors connected to the company and its environment.

The below table list the different factors and capabilities that are required for the two groups of innovations;

Alignment of/Factors	Radical Innovations	Incremental Innovations
Strategic Focus:	Explore, growth, long-term, risk	**Efficiency, production, short term, low risk**
Corporate culture:	Entrepreneurial, open minded,	**Risk-avert, customer, quality**
Capabilities required:	Discover, incubate, accelerate	**Exploit**
Structure:	Adaptive, loose	**Formal, mechanistic**
Critical tasks:	Adaptability, flexibility	**Operational, efficient**
Control rewards (incitements)	Growth, milestones,	**Margins, production efficiency, quality rate**
Feeback (time)	**Slow**	**Fast**

3.5.1 The characteristic of the organization

The firms' overall strategic focus seems to have a clear impact on the innovation work within the company. Organizations that are explorative, risk-taking and that have a long-term focus is likely to be successful in working with radical innovations. The strategic focus is less on efficiency and short term goals, factors that are connected with companies which mostly are involved in incremental innovations. Their risk-aversion is normally high and the company favors exploitation of existing resources rather than exploring new and more uncertain terrain. The corporate culture is characterized by traditions and standard routines, not so open-minded and entrepreneurial that typically is the case with organizations striving for radical and breakthrough innovations.

The ability to systematically come up with radical innovations is much dependent on if the firm has the capability to identify/discover new opportunities. The firm must further possess the capacity to incubate the potential radical innovation discovered. Another very important capability needed for the explorative type of firm is that the organization is capable of accelerating the new innovation into the next phase, making it strong enough to stand independently.

The organizational structure seems to have a large impact on the organizations innovation work. Radical innovations are more likely to be successfully developed in loose and adaptive organizations while incremental product and process innovations mostly are sprung out of more formal and mechanistic organizations. The control rewards and incitements that the organization use further affects the innovation type. Performance measured on criteria's like

production efficiency and quality govern the organization towards the incremental group whilst parameters like long-term growth and number of new business projects drives radical innovations.

3.5.2 The business environments impact

Different theories indicate that the business environment in which the firm finds itself has an important impact on the organizations overall innovation work. Incremental innovations appears to occur increasingly often for established firms in the industry's mature phase. The mature markets intense competition with focus on efficiency and price seems to make the firms to choose a cost advantage strategy. The need to differentiate is thus very important and research shows that the differentiation strategy is more likely to give the firm a sustainable competitive advantage. The ability to innovate in this part of the industry life cycle requires that the firm has the will and ability to explore.

The business environment further impacts the overall innovation climate in the industry. The industry's degree of openness towards joint ventures, open innovation and cross-boarder collaborations appears to affect the innovation strategies.

3.5.3 Working simultaneously with radical and incremental innovations

It has become apparent that the same factor that drives radical innovation might have a negative effect on the incremental innovation. What is good for the radical innovation organization is thus not necessarily always good for the incremental. Within the organizational theory however, it is now being argued that organizations should involve themselves in working both with radical and incremental innovations. The capability to simultaneously explore and exploit has proven to be vital for mature firms, increasing their possibilities to stay competitive both in the short as well as the long run. The development of the ambidextrous organization clearly indicates that the firm must organize themselves in a way that its structure enables a core business focus and also an exploratory perspective. It is made clear that the exclusion of either exploration or exploitation will cause a suboptimal system.

A problem that the firms need to overcome in order to be able to work both with radical and incremental innovations is the allocation of resources. The feedback mechanism works is in strong favor of incremental and exploitative behavior in the firm, especially in mature markets where the line between profits and losses is thin. Incremental innovations means less risk since the return quickly can be measured and analyzed. This is not the case with radical innovations, demanding a much longer feedback horizon, offering a potential high but yet uncertain return. The uncertainty together with the slow feedback seems thus to be an important factor that, deliberately and un-deliberately, benefits the focus on incremental innovations.

4 Empirical findings

The empirical chapter is, as the reader will notice, structured differently than the theoretical framework presented in the previous chapter. The reason for applying another method is that the author has had the ambition to reproduce an as accurate and broad picture of the observations made as possible. It is thus the belief of the author that the chosen empirical framework allows the reader to better understand SCAP organizations and its way of working. This section of the paper will accordingly describe SCAP, the market in which the company finds itself and how the firm is working with innovation. The chapter will be concluded by a short summary of the observed findings.

4.1 Historic overview of Svenska Cellulosa Aktiebolaget (SCA)

SCA is an international paper group that originates from a number of Swedish companies from the 17th hundred century. The company was founded in 1929 by the in Sweden legendary business man Ivar Kreuger. The group was originally incorporated as a holding company for some ten forest companies producing sawn goods and paper pulp in the Northern part of Sweden. SCA's most dominant product until the late 1950's was market pulp until it then was integrated with paper. In the 1960's, liner production was integrated with corrugated board which was followed by many part-ownership acquisitions all over Europe. In 1975, SCA moved into the new business category Hygiene Products by acquiring the Swedish company Mölnycke. SCA's interest in the British company Reedpack led to yet another acquisition in 1990, resulting in the creation of SCA Packaging as a separate business group.

More acquisitions have followed and SCA is today a multinational corporation listed on the Stockholm and London stock exchanges. The group is currently divided into the three different business areas *Hygiene*, *Packaging* and *Forest* products (please see figure 4.1.1). The company has an annual sales turnover of approximately 10 billion euros and employs about 50 000 people in some 50 countries.[100]

4.2 SCA Packaging Europe

SCA Packaging Europe (SCAP) is Europe's leading provider of customer specific packaging solutions, with corrugated paper boxes being the main product group. The unit is based in Brussels, Belgium, and has an annual sales turnover of about 3 billion euros , representing a third of SCA's total sales. SCAP employs around 18.000 people all across Europe. The company's operations are structured into five geographical regions (Middle Europe, Western Europe, Southern Europe, Nordic region and UK & Ireland) and includes approximately 200 different production units.[101] Each region is managed by one Managing Director (MD) with the production units typically being individual profit centres directed by a general manager.

4.2.1 Tradition of acquisitions

SCAP has a long tradition of growing through acquisitions. More than 30 acquisitions have been made only over the last 10 years.[102] The organic growth has however been less impressive and the business has the last few years gone down in terms of sales turnover. This is considered as potential problem within SCAP since new competition regulations from the European Union limits the possibility of growth through acquisitions.

[100] www.sca.se
[101] www.scapackaging.com
[102] www.scapackaging.com

4.2.2 SCAP Product Portfolio

SCAP's product portfolio offers a large variety of products, including conventional transport packaging, customized protective packaging, packaging with advanced printing, industrial packaging and consumer and display packaging. SCAP also offers related packaging services like re-packaging and inventory storing of consumer goods.

4.3 Market characteristics

The corrugated board industry can be described as an industry with a strong focus on the local market. This is explained by the fact that it is very costly to transport corrugated board due to the high level of air that the material consists of. A truck fully loaded of corrugated board can therefore travel no longer than of approximately 250 kilometres before the cost of transportation exceeds the profit margin. In order to reach the customer, a company is therefore more or less forced to be located in the same geographical area. This explains the large number of production plants that SCAP have all across Europe.

Each market has its own particular characteristics, depending much on the level of competition and the business located in the area. Market conditions and products are very different from region to region and thus managed on a local level. SCAP is with its 15 per cent market share the European market leader (together with the company Jefferson Smurfit) but the market share varies highly dependent on the country.[103] The market consist in total of around 400 companies, some of them large international players, but a great number of them are small family owned businesses.

4.3.1 Price competition

The packaging industry is an industry characterized by a very strong focus on price. All of the interviewed persons in this study are quite clear about the fact that the price has a major impact on their customers purchasing behaviors. Most customers are looking for as little packaging as possible in order to be cost effective and to save money. According to one key account manager at the central office, "everything in this business is about rationalizing and cutting prices". The fact that the market is troubled with overcapacity since some years back is not making things easier.

The competition on price is clearly present throughout SCAP but becomes particularly evident for standardized products, like the "brown boxes". These products have been around for many years and are best described as commodities. Competition is intense and competitors are fighting to gain market shares. The strive after growth often leads to that the SCAP sales force "give away prices", negatively impacting the firms overall result. This is a problem that is mentioned at many occasions, mainly centrally but also on a more local level of the organization. According to some, the problem depends on SCAP's overall impatience for growth and poor yield management. A senior executive states that SCAP should "be patience for growth but not for profitability". Another manager at the central office is aware about the problem but add that it is difficult to turn down customers in a falling market.

The price might be the first and essential factor that the customers are considering but not the only one. Quality and service are two factors that are relevant in the market. Particularly the first one can help a plant to receive a premium price on its products since it is common that products have minor defaults and are delivered after schedule. These problems occur due to

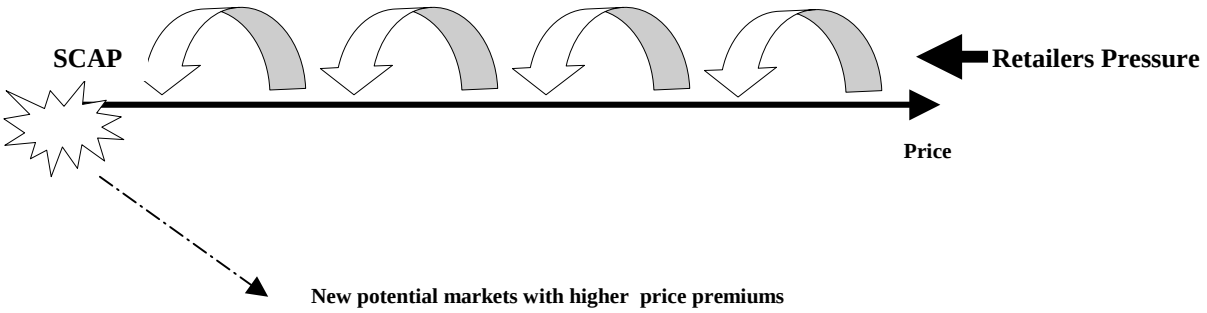
[103] Ibid

that it is a very large amount of different products being produced. An average plant can have about 60-70 new products per week, each demanding a specific solution in the manufacturing process. This requires flexibility and a good knowledge in how to set the machines so that minimal errors occur and so that the products can be delivered on time.

The SCAP product portfolio includes a growing share of stackable product display trays and point-of-sale boxes for fast moving consumer goods. Especially display packaging, as well as other packaging solutions for luxury goods, are a little less price sensitive than the "brown boxes". The customer, typically being companies like Procter & Gamble and Kraft Food, are looking for a unique design to their product display. The design and creativity ability becomes thus very important in combination with how fast the plant can present the idea. However, good design does not always outperform price, still being an important decision factor.

4.3.2 Increased pressure from retailers

The increased focus on price can partly be explained by the fact that large retail companies like Tesco in the UK and ICA in Sweden, are putting a strong pressure on SCAP's customer to lower their costs. This affects in turn SCAP since they are forced by their proper customers to come up with more effective and less expensive packaging solutions. Tesco's impact has for example more or less forced most of SCAP's customer to start using the shelf-ready packaging. It has become a requirement from Tescos side if the company would like to be able to sell their products on Tescos shelves. This is affecting the industry as a whole and especially markets where the retailers hold a very strong position. This is particularly the case in the UK where concerns within SCAP are expressed over this negative scenario; "We are last in the supply chain with Tesco dictating the rules". SCAP's profit margins have consequently declined over the last few years. The fact that the price of oil and gas has increased during the same period has contributed to the shrinking margins. SCAP now indicates that they might be forced to increase their prices after all; "we can't carry on loosing money".



4.3.3 The quality aspect

It is clear within a large part of SCAP that the company needs to make their customer focus on more than just the price. As mentioned in the previous section, quality in combination with on-time delivery has always been a relevant factor. The thumb rule is that a SCAP customer will not change to another supplier if the price difference is less than 5 per cent. The sales training manager at the central office for the UK believes related services are becoming more important and that their ambition is to avoid the competition on price. This is also expressed

on a plant level, however with some slight differences depending on the plant. At one of the visited plants, famous for its production efficiency and high quality, the management team accentuates the importance of communicating out its superiority to their customers. “Internal marketing at our customers is very important, that is how we can keep from competing on price”. The priority is first to make better products than their competitors and then make sure that the customers understands that. This is done through constant meetings where the plant representatives provide the customer with facts and figures, showing their strong performance. The goal is to “feed” the customers representative with “proofs” that they in turn can present for their managers. The purpose is to ensure them that they are working with the right packaging supplier and that they should continue to do so. Management further states that they “have to undermine the customers confident for our competitors by showing that they, i.e. competitors, don’t have the technology that we have…”.

4.3.4 Approaching the right decision makers

A major concern for SCAP in order to move away from the focus on price is that most of their contacts on the customer’s side only include the purchaser representative. The interest of the purchaser is almost always on lowering cost, making sure that he or she can come back to his company without exceeding any budget. The purchaser is less interested in the products features and it becomes difficult for the SCAP’s sales representative to persuade him or her to chose the more advanced and expensive product alternative. “*We have today a customer base that is equivalent to McKinsey’s, the only difference being that we only have the names of the purchasers”*. The purchasers are considered as gate keepers and SCAP believes that they need to move up the stairs in the latter of hierarchy in order to be able to affect the decisions. SCAP would like to much more often get in contact with typically the customers marketing and product managers, mowing away from discussing the price to instead focus on how to make the packaging attractive.

Workshops are an important tool for this and something that SCAP are using, however not to the extent that the interviewees would like. A workshop consist in general of a number of representatives from SCAP, mainly including designers and sales employees, and then, hopefully, sales and marketing people from the customers side. The session is most of the times arranged in one of SCAP’s four Design Centers, a conference room especially adjusted for creative work so new product ideas can be developed and tested.

4.4 Innovation work at SCAP

The innovation work taking place within SCAP is best defined as incremental product, design and process innovations. The strong price competition in the mature industry seems to have made the company focus on efficiency and on the improvement of the existing product portfolio. The radical type of innovations described in chapter three are rare, not to say almost non-existing. One senior manager with very good insight in the matter, explains that it exist no radical innovations within the SCAP, even though that *“some people might think so”*. This is an opinion that he shares with many of the top managers interviewed, all more or less expressing the fact that innovation within SCAP is focused around the existing core business. The company is according to some *“completely manufacturing lead”* and *“blue sky innovations does not exist, it is not on the agenda, not anything dynamic from outside the industry”*. Figure 4.4 illustrates the types of innovations SCAP develops today:

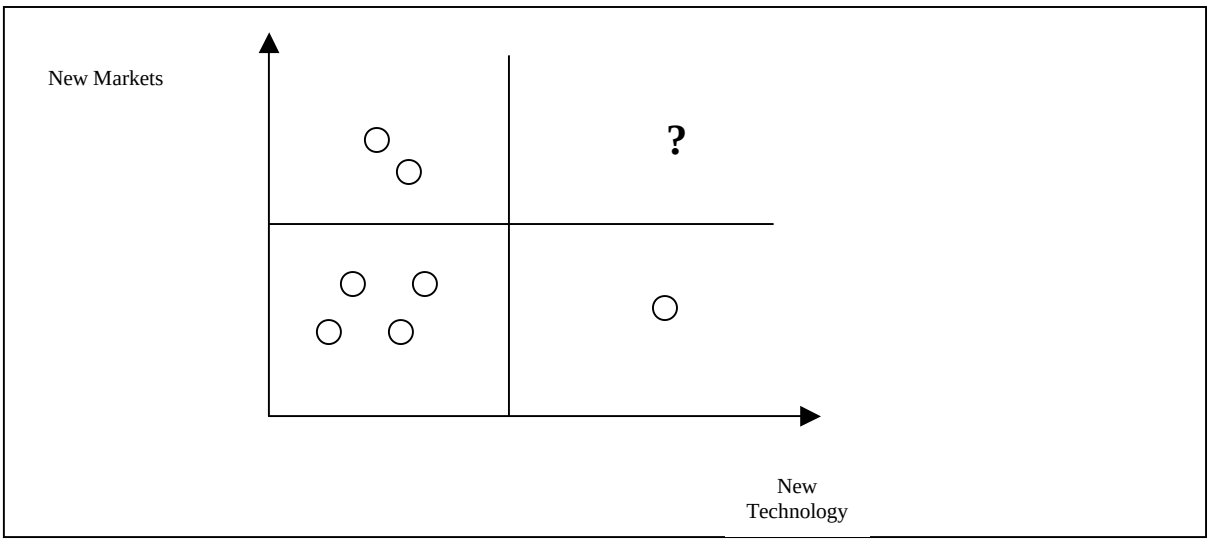


Figure 4.4 Innovations at SCAP

The reason behind the fact that SCAP is entirely focusing on incremental innovations can be explained by a number of factors. The company has a very long and strong tradition as a manufacturing company that has, until recently, proven to be very successful. The manufacturing and efficiency way of thinking is thus well rooted and accepted. Some state that the company is *"managed by conservative Swedes"*, not being *"turned towards the future"* as the industry is changing. The market has over the last year been characterized by overcapacity, something that in turn has made the company focusing on minimizing losses and be as cost and production effective as possible. The decentralized structure of the organization with box plants being profit centers further leads to a focus on incremental innovations. The relationship with the customers is another important factor that will, together with some of the above mentioned factors, be further explored in the section below.

4.4.1 A reactive and creative way of working

The vast majority of all the innovation work carried out today in SCAP is of a reactive nature. This means that the customer approaches SCAP with a specific packaging problem that SCAP then tries to find a solution for. Rarely are the cases when SCAP actively go out and search for new customers, presenting them with different packaging solutions. An estimate from a Key Account manager from the central office is that more than 80 per cent of all the work in the average Box Plant is of a reactive nature.[104] Some plants are almost exclusively working on a reactive basis, demonstrated by one manager's estimation that his plants work consists of *"approximately 98 per cent reactive work"*. The reason for that, he explains, is that the reactive work takes all the plants existing time and that it thus becomes difficult to search for new customers. [105] The strong focus on the local day-to-day and reactive type of business is a common factor for SCAP's units.

The relationship with the customer can be much compared to how an advertising agency works. The customer comes with a request to the local SCAP plant, e.g. asking them to deliver a packaging solution for their product. The customer would like the packaging box to be both designed in an optimal way out of a logistic perspective, i.e. transport as many

products as possible on a truck, as well as being designed in an attractive way in order to increase the purchase ratio in the local store. The challenge for SCAP is then to find the optimal mix, making their designers work on finding an appropriate design/look to attract the products target group in the store, as well as finding a packaging solution that safely will hold the product. The number of possible combinations that exist depends on the product. For example, shelf-ready packaging and displays for fast moving consumer goods involves normally many more alternatives than a regular box.

The plants that mainly are working with shelf-ready packaging and displays see them selves as very creative and innovative in their way of working. A continuously new demand from the customers forces them to think different and try to find a unique design for almost each product. One respondent compares the work with being a chef, *"you have a defined number of ingredients to use but it is how you mix them that are interesting"*. The creative aspect is therefore very important even though most products have certain limitations or industry guidelines to follow, e.g. one type of the displays are not allowed to weigh more than 15 kilos, another is limited in height etc. The innovation work in those plants can mainly be described as design improvements or sometimes product innovations. The creative work is handled by the local designers on each plant, every major plant having about 3-6 designers. They are supported by 4 designers located at the central head office in Brussels and sometimes, depending on the region, by a small number of designers at the regional head office. The designers are much respected within SCAP, especially on a local level where managers sometimes explained that their strength was based on a number of *"really clever and creative designers"*. However, a new creative design is useless unless it is possible to produce, making the coordination between design and production very important. This is also internally considered as SCAP's major strength, i.e. the combination of the large variety of products designed and produced.

The more traditional box plants, working with conventional transport packaging and more industrial packaging, are considered to be less creative than the above mentioned. They might however still be very innovative, put from another perspective. Their innovations is mainly to be considered as product or process innovations, much focus is on improving existing manufacturing routines and improve the quality of the box. A lot of focus is also on the printing process, finding the right mix of colors and print design for the customer. The shape of the box varies depending on the product but as one general manager states; *"How many ways exist of doing a box, not that many"*. A typical innovation would be one plants introduction of a video camera system in one part of the production process, measuring the distance between two paper boards due to a laser system. This enables the plant to have a better process control and reduce the number of default products.

4.4.2 Examples of new innovation projects

It exist relative few new innovations projects within SCAP that can be considered as more than just product modifications or efficiency ameliorations. The type of innovations that to a larger degree has impacted or could have impacted the business, are still to be viewed as incremental innovations. A few examples of those are presented in order to understand what types of innovations the author has come across during this study. These innovations are perhaps to be considered as "radical incremental innovations".

4.4.2.1 The Provision Project

Provision is the working name for a total of 4 supply chain solutions that have been develop over the years. Each project was initially developed on its own before it today is presented as

an entity towards the customer. The Provision approach is mainly used in the UK where approximately 10 different sites actively are promoting the supply chain concept.

- *Contract Packaging* - Specialized packaging service for in store merchandising
- *Hubbing* - Vendor owned inventory management
- *Procurement* - Tailored outsourcing services
- *Component Pack and Print* - Consolidating packaging literature and peripheral components

Two of those services are further explained below;

The Contract packaging
Many companies have their goods produced in Asia where they are packed in large quantities before being shipped over to Europe. Contract packaging is thus a service where SCAP help the customer to re-pack their goods into smaller quantities, better adopted for the local market. The contract packaging is viewed in the UK as a service with "huge possibilities" since it exist no larger competitors in the region. The initial idea of the new business came originally from a SCAP customer. The customer had experienced and increased need for this type of service over the years. The company had a good relationship with SCAP and accordingly asked if this was a service that SCAP would be able to provide in the future.

The Hubbing service
This is a service for the customer where SCAP offers to store the goods for their customer, acting like an intermediate. The product is based on an advanced inventory program that in a very effective way calculates the space available. The Hubbing business was seen as an excellent idea but the result has so far been quite poor. The customers are very satisfied; the problem lays in the fact that the pricing system is based on the idea that all inventory space is to be occupied. This is not the case, SCAP is therefore struggling with too much capacity and money is lost. The initiative of starting this service came also originally from a customer of SCAP.

4.4.2.2 The Fishbox and Printcraft projects

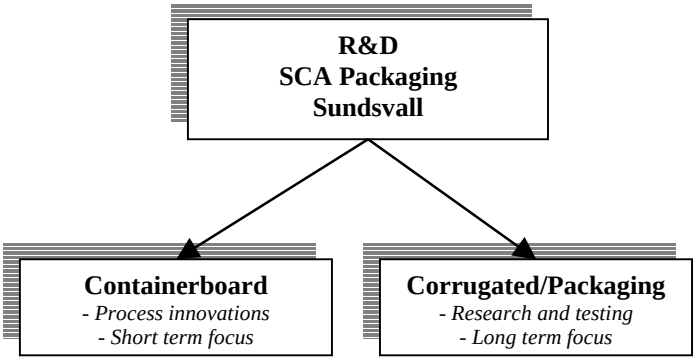
Two other interesting new business projects that have been launched and later terminated are the projects internally referred to as the Fishbox and Printcraft projects. They are both presented below.

The Fish-box innovation
The Fishbox innovation came from an idea to produce fishboxes (used by the fishermen to pack their fish in) out of corrugated board. The fishboxes are normally produced out of frigolit (word!!) but the ambition from SCAP was that the corrugated board box would be a new alternative that would give SCAP the opportunity to reach a new market segment. The initial idea came however not from SCAP itself but from a customer. The new innovation did unfortunately not become very successful and the failure was blamed on various reasons. The local box plants claimed for example that the top management and the R&D unit in Sundsvall did not check with the local markets if the idea would work. The problem was according to them that the new fishbox alternative was more complicated and foremost more expensive than the already existing product on the market. The lack of sufficient market research in combination with poor pricing and poor communication appeared therefore to be the main factors for the not so satisfying result. One local box plant manager further believed that the

idea was too radical and claimed that; *"The fishboxes was perhaps a good idea but just too radical for the market. Couldn't change the customers' behaviors"*.

The Printcraft Innovation
The Printcraft innovation was based on a new type of paper-material which gave the boxes an old fashioned type of look. The initiative to start producing the paper came out of the need for the paper mills to lower their cost. The paper became particularly popular in SCAP Scotland due to its large number of whisky producing customers. They were all very found of the more classical look that the new paper type offered and the unique boxes became therefore a part of their brand image. The potential for the new paper in Scotland was viewed as very high. The paper was both cheaper to produce and more attractive to their customers. Even some of SCAP's main competitors were "forced" by the whisky producing companies to buy the new paper directly from SCAP. The production of the new paper was however brought to an end, the reason being that the market segment was to small and not profitable enough. The local plant managers in particularly the Scottish region was much dissatisfied with this decision, claiming that; *"The product failed because SCAP are too busy putting out fires rather than making new business work. Centrally we missed something there. This was one instant where a central push actually could have done a difference"*.

4.4.3 The innovation work at the R&D unit



The central Research and Development (R&D) unit for SCAP is based in Sundsvall, Sweden. The organization holds about 15-20 employees, mostly research engineers and material specialists. The unit is divided into two departments; one which is focusing on the containerboard side of the business and the other which is working more towards the packaging and corrugated board side. The Containerboard department is very much working with incremental types of innovations, much concentrating on processes and the day-to-day business. The Packaging department have a more strategically and long term way of working, conducting material researches and initiating development projects. This department is also referred to by the respondents as the "research department", indicating that it is this part of the central R&D unit that is considered to be a research department by the standard definition. This department also performs some of the research work for the containerboard department.

New research projects ready to launch within the Packaging department can be identified in a number of different ways. The R&D department sometimes initiates a project as well as does the different "sponsors", whom normally are persons holding central positions in the company. The initiative can further come from a regional level and many initiatives of possible research areas also come either directly or indirectly through the SCAP's customer.

The last aspect is considered to be somewhat negative, i.e. the fact that so many of the research initiatives come from the customer and that the R&D department therefore is working too much in a ad-hoc manner.

Each project that is launched consists normally of a sponsor and a working group of about 3-5 regional managers. The group design depends however to a large degree on the specific project. The sponsor does much of the initial work and has a key role in the group. He or she has the required authority to lead a project of this kind. The regional managers normally hold a key position in their region, typically being the Development or Product manager. The length of the projects varies but the average project last about 1 year.

A major concern with new innovation projects is that it has proven to be very difficult for SCAP to successfully integrate them back into the organization. The company lacks the right set of regional people that can receive the information and push the innovation down in the organization. The combination of insufficient competencies and scarce overhead resources is explained to be the reason for the poor integration. More resources in order to coordinate the work are strongly needed. The profit centre structure is also believed to hinder the development and the possibilities for SCAP to gain from new innovation projects.

The innovation projects that the R&D unit is working with are mainly of an incremental nature. This is particularly the case on the containerboard side with one research manager stating that it is "the most incremental it can get". He is concerned that the knowledge of the employees within containerboard will be diluted if the work becomes too short-term concentrated. The Packaging department is also focusing on quite basic research that has a close connection to the company's core business. This is partly considered problematic by some, arguing that the locus of attention is too much on the production side and that it makes it difficult to break out and find new ideas. The problem is also contributed to the fact that SCAP uses the same financial targets and measurements for old as well as new projects. This is something that many managers in the company regard as fairly problematic. They accordingly argue that this is a strong reason behind the fact that so few new innovation projects within SCAP are accepted.

The R&D unit had however under a shorter period an innovation group that worked towards finding more radical innovations. The project went under the name of "Intelligent Products" and was incorporated within SCAP's R&D unit from SCA's Corporate research. The project group consisted of about 5 persons that under a few years in the late 1990's worked with those types of innovations. The project was however discontinued since management thought that the work resulted in too many diffuse innovations, impossible to commercialize. This is still very much the standpoint within the company. The belief from the R&D unit in Sundsvall seems to be that the company should stick to its core competencies and rather learn how to implement advanced technologies than develop them by themselves.

The main concern from the management at the R&D unit seems thus not to be the lack of work on radical innovations but rather that the current work is not enough proactive. *"We are very reactive today, sitting in the backseat, not looking forward"*. The R&D unit has not over the year been able to *"get it right"*, as they express it, partly because the strategies, both within the R&D and SCAP, have haltered and shifted as a result of new management philosophies. *" We don't have the overview perspective needed and the lack of new innovations are a result of that"*. The problem is however not a lack of vision, it is more a question about how to implement it in the organization. The company is therefore much

hoping that the new structure, with a new innovation centre shortly to be located in Brussels, will enable the company to hold a more proactive approach. The idea is that R&D in Sundsvall will try to have a long term focus, supporting the innovation center in Brussels with important input on new possible innovations. The innovation center will work more closely with some major customers as well as more actively transfer the innovations out in the organization.

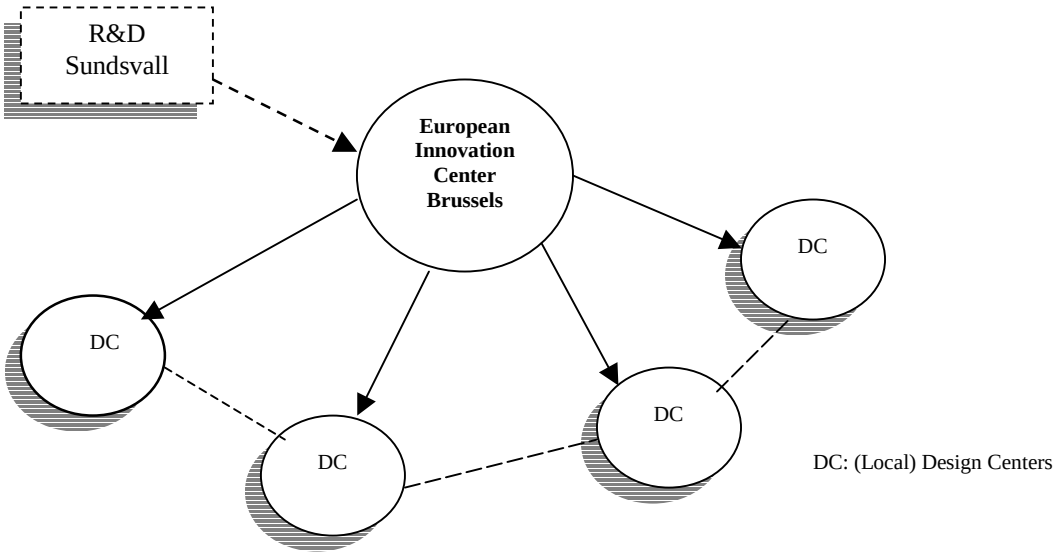


Figure 4.4.3 "The new innovation structure"

4.4.4 External projects and investments

The views in SCAP towards venture capital and other types of risk capitalist investments seem to be carefully positive. Most of the respondents in the study believe that it would at least not be wrong if the company started to look around to see what the market has to offer. Buying into small start up's instead of developing the innovation from day one seems be an interesting alternative according to many of the interviewees. Some expresses however concerns about SCAP's capabilities to continue to develop the technology further on. Previous experiences within SCAP have proven that this is difficult and that the integration aspect not should be neglected. Failures are also blamed on poor market research and a lack of vision about what to do with the newly acquired capability. One manager states that he in general is very positive to the search for new technologies outside the firm but that it is a matter of timing. The last years many acquisitions, mainly for increasing the core business capacity but still, have left SCAP with many loose ends. *"We should perhaps sweep up in front of our own door before we start searching for new possibilities. As of today, we have a great puzzle but all the pieces are spread out on the floor".*

Other manager states the contrary, saying that SCAP must start to realize that risk and venture capital is something they will need in the near future. New alternative markets and products must be found. The problem is, according to two senior managers, that SCAP is a too risk-avert of a company. The high risk-aversion makes the company turn down interesting offers, something that recently was the case. The top-management seems nevertheless a little bit interested of venture capital, recently giving a senior manager the authority to search for new interesting companies.

4.4.5 Open Innovation

SCAP are not to any broader extent working with so called open innovation. The packaging industry is very traditional and there is little collaboration going on between the competitors. SCAP are thus carefully protecting its technologies and information, like most of the others. A research manager believes that there is no need in protecting the technology from the others; *"Forget that you can hide your technology from someone else. Everybody knows what everybody does anyway"*.

The types of collaborations SCAP are involved with include instead different smaller projects with universities and institutions. The R&D unit works together with some of the local universities in the area and is also involved in a project with Investment Sweden Agency (ISA). SCAP are only interested in projects where they can actively be involved in the development of the project.

4.4.6 Innovations are driven by the customer

The new businesses that have emerged in SCAP are the result of the reactive way of working that the firm applies. As described in section 4.4.1, most customer relationships that SCAP are engaged in involves a scenario where the customer approaches SCAP, not the other way around. SCAP spend little time and efforts to proactively come up with new packaging solutions which they then can approach the customer with. This leads to the fact that it is the customer that drives the innovation work within SCAP. It is first after that the customer has identified a problem or a new demand that they will pass on the idea to SCAP. It is then SCAP's task to create a valid packaging solution. Most innovations tend therefore to involve minor product and design modifications.

In the cases when new more radical type of business innovations have emerged, as for example with the Contract Packaging, the original initiative is also almost always coming from outside SCAP. In the Procurement service, Ford approached SCAP asking if they could start taking care of their purchasing function. The same is the case with the development of the corrugated Fishboxes, the idea was driven by a customer and their relations. The reason behind new and emerging business seems therefore not to be a result of any strategic decision. They are more the result of one customers initial need that later have been developed and adopted to a larger spectra of customers. Provision with its portfolio of supply chain solutions is a good example of this.

As previously discussed in section, the central R&D unit in Sundsvall is also applying the ad-hoc method of working. The unit is much driven by the demands of the customer with inquiries sometimes coming directly from the local box plants customer. The unit is therefore often working with very specific type of innovation solutions for the individual customer, making it difficult to apply them to a more broad section of the market. This further emphasis the fact that it is the customers that drive the majority of all the innovation work in SCAP.

4.4.7 Profit centre structure

SCAP is a decentralized organization where the approximately 200 box plants in Europe are run like individual profit centres. The Profit centre structure is much questioned among the respondents, clearly indicating that the structure is making SCAP focus too much on short term results. The competition between different plants can be intense, not always facilitating the cooperation and networking among the units. According to one regional manager, local plants rather turn down an order than passing it on to another SCAP plant in the area. The

internal competition sometimes even goes so far that plants prefer giving a way orders to competitors rather than to SCAP plants.

The profit centre structure is much criticized out of an innovation perspective. It is mainly the central and regional managers that believe that the current organization makes the box plants concentrating on efficiency and productivity. The profit centre structure creates little incitements for the box plants general manager to spend large amount of capital on new and untested technology. The general opinion among those managers seems to be that either should the box plants become more of cost centres or that the organization as a whole should create a stronger central unit.

4.4.8 Growth through the core business

The vision within SCAP top management and SCA, seems to be that the company should continue to focus on its core business. The tradition of being a manufacturing lead company seems to have a strong impact on SCAP's innovation approach. It is out of that aspect quite natural that the company is working exclusively with incremental innovations. The last years poor results seems however to have affected the company, realizing that some changes perhaps are needed in order to make the business grow. A vice president gives his view on the problem; *"We know that the current core business is a market with declining margins and where the products can be seen as a commodity […] We should therefore try to add a bigger part of adjacent business around it (i.e. the core business), which will give us better margins and increase our profits"*. The will is to grow by adding on new businesses closely related to the already existing ones, for example as the Contract Packaging. Figure 4.4.8 illustrates this;

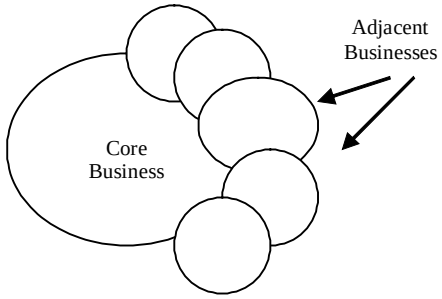


Figure 4.4.8 "Adjacent growth"

SCAP's management advocates a strategy where it is important to get the first new adjacent businesses right before starting on looking for new opportunities. The management also expresses the need for the firm to start working more closely with its major customers and to focus even more on innovative design. The strategy has more of a "brick by brick" character rather than working with radical innovations.

4.4.9 The corporate culture out of an innovation aspect

Most managers within SCAP stresses that SCAP is a traditional and very risk-avert company. The focus is on production according to the respondents, innovation is most of the time not, many say even never, on the corporate agenda. A senior top- executive, much in favor of a radical innovation, explains that it is difficult for a company like SCAP, used to think in terms of efficiency, cost reduction and scale economies, to shift and start looking for alternative solutions involving smaller production quantities and higher but less certain returns. It requires a lot of organizational effort, something he believes that most people within the

company find too demanding, however still just as necessary. That is one of the major reasons why SCAP only is working with incremental innovations.

The opinion that SCAP is not working with any radical type of innovations, as defined in chapter three, is something that the respondents share with one another. However, the incremental innovation culture is a little bit more difficult to describe. The majority of respondents are stating that the company as a whole is turned away against innovation. One regional manager even goes so far that he states that *"SCAP is against innovation"*, explaining that the company is completely product driven and that *"people are enemies of innovation"*. The reason is that each new innovation initiative negatively affects the manufacturing efficiency in the Box plant since capacity has to be re-directed to the new innovation. New products may also require new machines, resulting in high investments as well as a not irrelevant running-in period, thus making the local plant manager less interested in changing into a new product. The strong focus on efficiency can further be exemplified by the fact that it exist internal awards programs where the different plants compete against each other in terms of production and efficiency. These programs, particularly the one called EuroBest, are receiving much more internal attention than the few design awards that exist.

Interesting enough, some of the same managers that are claiming that SCAP are turned away from innovation, still suggest that the company possesses an entrepreneurial spirit. The difference seems to be that the those people believes that many employees within the company have an entrepreneurial mind but that it exist little or no incitements from the top to encourage them. The innovations that come from inside the company are therefore the result of so called "skunk works", meaning that in order to achieve unusual results, (i.e. innovations) the employees work in a project in a way that is outside the usual rules. There exist thus no organized procedures or incitements within SCAP that will drive and encourage innovation; it is very much up to the individuals themselves. This is very well illustrated by one general managers comments during the interview, saying that his plant is very innovative but that is just because *"that's the way we are around here"*.

4.4.10 Working in a proactive manner

An opinion in SCAP is that the company lacks a proactive way of working. The need for a more proactive approach is especially expressed at a central level, i.e. at the central office in Brussels and at the regional head offices in the UK and Germany. The general belief is that the company needs to be able to identify new potential customers and more pro-actively come up with new packaging solutions. A design manager at the central office is clear about that SCAP's major future challenge is the firms' ability to look at the market in a different manner and to learn more about what the customers want. Other managers express almost identical thoughts and that SCAP must be better in understanding what their "customers customers" wants. "*We need to send out the sales people to our customers so they can sit down with their marketing people, products specialists etc and listen to what the product is supposed to do in the end. THEN, we can help them to find an appropriate packaging solution.*"

4.4.10.1 The request for a stronger central unit to target the right customers

Centrally positioned managers express the need for a stronger central unit in order for SCAP to be able to work in a more proactive manner. Market segmentation and the mapping of customers are being carried out on a central level today, however not in a satisfying way according to some of the respondents. A problem with the market segmentation seems to be that *"each market is so small, we can do market segmentation in eternity …we are extremely*

poor in enlarging the segments". The main problem is the fact that there is a lack of coordination between the different units within SCAP. *"Good ideas of new projects stay on each Box Plant since the integration is so bad"*. A tighter and stronger network with the central office is therefore requested from the central unit, claiming that SCAP needs to create more overhead in order to be able to see the customer base out of a larger perspective. The perception is further that the customers are becoming increasingly "pan-european", i.e. more centralized driven. This requires that SCAP have an organization that can respond to their demands, i.e. having a central unit with the capacity to attribute a separate key account manager, a separate lead designer and so on, only focusing on that specific customer. One manager expresses his concern about this; *"Today I can't match up with for example Kraftfood since we don't have the organization for it. I can't offer them a lead designer for every segment. They ask for different competencies and much more staff for each segment that we have. We are not organized that way which makes it very hard for us"*.

4.4.10.2 The request for a more centralized organization to drive innovation

The proactive approach is much requested concerning how SCAP should work with innovations. A central manager expresses his concerns about the current situation, explaining that the focus is too much on the day-to-day business. He would like to see that the organization took *"one step backwards"*, trying to analyze the situation and find product solutions for more than one specific customer. Today's structure with Box Plants being profit centers makes however this very difficult. Each plant is so independently driven, making it hard to implement routines on a centralized level. Innovations become therefore very locally adapted since little coordination with other plants exist.

To be able to work more proactively and still be organized as a profit center, the same manager suggests that the organization should have at least 1-2 persons working on regional basis. Their focus should be on proactive product/service solutions, looking both inside and outside their own region in order to find interesting approaches. The information gathered on a regional basis should then be transmitted to the central office. At the central office, a selection of the information would be made and a plan set up for how to implement interesting solutions for the future. This would enable a much stronger coordination of different ideas from the local Box Plants, not having to re-invent the wheel since new product ideas could be shared. Moreover, this coordination would enable a better knowledge of different market trends and give SCAP the possibility to look more into the future.

The Provison project discussed under section 4.4 2 is an interesting example of a more proactive approach. The central office in UK has created a smaller regional marketing unit, working with identifying new potential markets and coordinating the sales work. The ambition is to centralize the marketing work by giving the central marketing department a better overview of the different markets. The central marketing team then prepares a smaller "tour" in the UK where they visit the different plants and provide them with new information on the specific market they should target. This is a new way of working for the UK region so it is too early to analyze the result of the new strategy.

4.4.10.3 The Sales Force

A concern that is expressed throughout the organization, from central management to local designers, is that the SCAP sales force is somewhat outdated. The common opinion seems to be that the sales force culture is too old and rooted. A design manager would consequently like to see that the sales people more proactively approached the customers and tried to arrange meetings with a greater number of different people from the customer. This is not

being done today and the design manager states that the sales representatives are not used to that way of working; *"It scares them (i.e. the sales people) to have to go out and have a meeting with six people instead of one. Plus that they then have to do their homework and learn more about the products"*. Another manager, who has good insight in the regional sales force, explains that around 70 per cent of the UK sales employees have been working within the business for 20-30 years, creating a very high age profile. He also claims that the business environment is not the same today as it was back at the time when most of the sales representatives started their careers. He believes thus that the sales force needs to become much more service and commercialized focused in their way of working.

The sales force structure can vary between the regions but is normally constituted of a national as well as a local sales force, much more closely connected to the individual plant. The close connection between the local sales force and the plant is by some regarded as problematic. One regional manager argues that the local sales structure, enabled due to the profit centre system, makes the sales force much too narrow-minded and creates a conflict between the national and the local sales representatives. The local sale force is too well-informed about the plants pricing system, making them give away prices in their ambition to be loyal to their customer.

4.5 Empirical Conclusions

The studied company has provided this paper with a great deal of empirical material. The most relevant findings for this study have been presented in the above section with the ambition to give the reader a rich and deep understanding of the observations. The empirical conclusions that can be withdrawn from the conducted interviews are briefly presented below;

- *Mature industry with strong price competition*- The packaging industry is characterized by price competition and maturity

- *Incremental innovations*- SCAP is focusing on incremental product and process innovations. The core business is very traditional driven with much attention on efficiency and scale economy.

- *Lack of radical innovations*- There exist little or no work with radical innovations at SCAP. Radical innovation is not mentioned on the corporate agenda and few incitements for innovation in general exist.

- *Reactive and ad-hoc way of working* - SCAP works in a very reactive manner, both in terms of approaching the customer and in finding new product solutions. This is something the entire organization struggles with, including the central R&D unit.

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- *Negative internal competition*- The profit centre structure creates sometimes a negative competition between box plants. This results in revenue losses for the overall organization.

- *Poor yield management*- SCAP have experienced many problems with its pricing systems, particularily for new business.

- *The customers initiate the new innovations*- It is SCAP's customers that drive the innovation in the organization.

- *Risk-avert management culture*- The corporate management seems to hold very strong and traditional values, risk-aversion against the unfamiliar is high.

- *A need for more overhead cost*- SCAP need a stronger central unit with more focus on coordination of the different regions.

- *Problem integrating new business* - Difficult to integrate new business down in the organization.

5 Analysis

This chapter aims to synthesis and match the theoretical framework developed in this paper with the empirical findings gathered from the studied case company. The objective is to examine whether it exist any similarities or differences between the empirical observations and the discussed theories. The analysis is following the pattern-matching approach[106] with the ambition to develop the existing theory or at least provide the theory with some new empirical insight.

5.1 Environmental factors

The characteristics of the business environment that a firms finds itself in varies much dependent on the market stage. The type of innovation work that the company is involved with seems also to be affected by environmental context. The packaging industry in which SCAP are operating in, have most of the characteristic that is synonym with the mature market;

- *Slowing growth- increased competition for market share*. SCAP's employees witness about the more and more intense competition and the last year's poor growth is partly a result of that.

- *The companies in the industry sells in a higher degree to already established, repeat buyers.* SCAP's sales constitute already today of a very large part of repeat customers. Some box plants are stating that they now days focus exclusively on already existing customers.

- *Greater emphasis on cost and services.* The company is emphasis a strong focus on cost and efficiency, much as a result of the increased price pressure from large retail companies. The introduction of new services, like the supply chain service Provision, and a greater perceived need for more similar offerings is supporting the service theory.

- *Overcapacity problem occurs.* The industry is clearly troubled by overcapacity, already resulting in some industry mergers. The increased price competition is once again underlying this.

- *Industry profits fall.* The profit margins for many of SCAP plants have decreased and plant managers are indicating that they most likely will continue to do so. The industry as a whole seems to experience the same scenario, resulting in intense competition.

The empirical findings seems to match relatively well with some of Porters characteristics of the mature market, or at least the ones indicating that the company and the industry is about to face maturity. SCAP's strategy over the years has been growth through acquisitions, something that has earned the company a market leading position. This strategy worked well as long as the market kept growing and as long as it was possible for SCAP to gain market share through buying smaller companies. The maturity phase and the overcapacity the

[106] Yin, K Robert, (2003) *Case study research: Design and methods*

industry now is experiencing make it however quite difficult to grow through acquisitions. The new European market laws, regulating the competition, further restrains that possibility.

5.1.1 Strategies for the mature business environment

The two possible strategies that are known to be applicable in a mature industry is either the cost advantage or the differentiation strategy (see section 3.3.3 and 3.3.5). SCAP appears to have chosen a strategy that partly reminds of the cost advantage strategy, e.g. having a quite effective cost structure with lean overhead costs, little slack resources and a much decentralized organization. The cost advantage strategy is effective if used in the right way, particularly in mature markets where rapid growth no longer is an alternative to make up for an firms poor cost structure. However, the problem appears to be that SCAP have a relative poor pricing structure. The sales force is blamed for giving away prices and many problems are related to the firm's inability to charge the right price for its products and services. Some of the new business projects that have emerged over the years have been shut down as a result of poor pricing and inaccurate market research. The company's impatience for growth seems thus to be bigger than the firms' patience for profitability. SCAP are accordingly finding it difficult to turn down business even though that the customer might not be profitable.

One potential answer to the organizations pricing issues is that SCAP starts to focus more strongly on the profitable customers and segments. This is a turn-around strategy that enables the company to allocate more resources on the right customer by be being more selective and cutting off the unprofitable ones. Theories also indicate that mature companies should focus on selling more products to its current profitable customers, trying to offer the same customer a broader spectrum of products within that customers segment.

5.1.2 Differentiation strategy and strategic innovation

The cost advantage strategy is known to be effective but difficult to sustain in the long run. Cutting cost and be efficient is something that most competitors will learn how to do as well. The strategy also leads to a very strong focus on price and the business will continue to go move towards an even further state of maturity. To gain a more sustainable competitive advantage in a mature industry, SCAP should instead perhaps try to differentiate itself from the competition. The company indicates that it would like to get away from competing on price and try to add value in its relations with its customers. Theory also stresses that the need to find a differentiation strategy rarely is as high as it is for a company in a mature industry. The problem seems however to be that the company is working on a very reactive basis, not actively taking charge of where the business will go. New business projects that are launched are often initiated from the customers and are started off with, at least so it seems, no real strategic decision from the top management. This does not mean that those projects are "no good" but it shows that the initiatives to differentiate rather are the results of customer identifying a need than SCAP trying to follow a differentiation strategy.

The Provision project launched in the UK is a business that is trying to grow the customer base for SCAP, or at least extend is services for its existing customers. This relative new type of service approach is much discussed in theory as a way for companies in mature markets to add value to their products and create a competitive advantage vis-à-vis its competitors. This appears to be a interesting way for SCAP to go and the added services can be much compared to a strategic innovation (see section 3.3.6). The different supply service offerings within Provision started off separated from each other and as a result of customer initiatives, but was later gathered together and marketed under the name Provision. The central office in UK

identified the combined value of the different service products (with the assistant of an external consultancy agency) and it is now seen as a separate service product. The Provision project is thus a way of adding a new service to an existing business.

An interesting part with Provision is, as stated earlier, that it mainly originated from the customers demanding new projects, asking SCAP to handle those services for them. The idea to bundle the parts together as Provision was also identified even though with support from an external consultancy firm. Still, it is the will of the author to emphasis the perception that SCAP seems to lack a clear strategic will to originally create this new strategic innovation. It is more something that "just happened" due to SCAP's customers demand rather than the result of SCAP's systematic or strategic approach. The central organization in the UK have started a process with Provision that can be successful, creating a small but regional marketing unit that have the objective to identify new potential customer segments for the local plants. It appears however as this is a relative unusual occurrence in SCAP, having a much decentralized organization with low overhead costs. This makes it difficult to intiate and spread information across the organization about projects like Provision.

5.1.3 A traditional mindset

According to Grant (see section 3.3.7) many organizations are used to a specific way of working and the industry's conventional way of thinking, making it difficult to change and start focusing on more strategic innovation. SCAP seem to show many similarities with Grants theories, being a conservative company used to work in the same way for many years. This can perhaps explain why SCAP is so focused on its core business and incremental innovations. In order to more systematically come up with strategic innovations, SCAP needs to break away from their traditional mindset. This requires however a lot of action and commitment from the top management. The existing infrastructure with its current control and rewards systems must be looked over and updated. Today, those mechanisms are almost purely focusing on efficiency and productivity, being far from promoting strategic innovations. It is therefore not so strange that the strategic innovations is not pushed from SCAP themselves. One potential answer for SCAP to be better in coming up with and identifying strategic innovations could thus be that the company rewarded entrepreneurial ideas and worked more intense with coordinating information from the local units and regions. SCAP should perhaps further work more proactive on a central level to promote strategic innovations that later can be communicated out in the company. The problem however, is that such a strategic change requires a lot of effort from the company. The resistant towards change in SCAP seems also to be quite high, making it very difficult to change and implement a new way of working.

5.2 Strategic focus, vision and culture

The strategic focus and the overall vision and culture in an organization appear to have an impact on the firm's innovation processes. Organizations that work with radical innovations are often known to have a strategic focus that is on long-term growth and to explore new markets. This is not the case with SCAP, being a company that mostly seems to concentrate on the current business and to be as manufacturing and cost effective as possible. SCAP has a strategic focus that is more aligned with the incremental innovation type, concentrating on more short-term growth and exploitation. The innovation work taking place in SCAP is also quite naturally much reflected by this approach, corresponding with the theoretical theories in the field. The strategic focus is thus very much on the short-term growth and this focus seems to be very much part of the entire organization. The current incremental innovation work is

reflecting the culture in SCAP where little attention is on finding new and breakthrough ideas. This is much illustrated by the fact that many respondents claims that radical innovation is not even on the corporate agenda.

SCAP's history as a part of one of Swedens oldest and most successful industrial company's appears to have a large impact on the company's norms and values. The general opinion in the company seems to be that SCAP is foremost a company in the manufacturing industry rather than in the packaging industry. This is also much exemplified by the different control and rewards incitements that exist within the company. Those mechanisms are clearly focusing on rewarding efficiency, productivity and quality, leaving little room for any attention on innovation. A very interesting aspect is the fact that SCAP use the same targets for estimating both more "conventional" investments e.g. machines, equipments etc as with new products and services. This system is favouring more "secure" investments, thus making the company focusing even stronger on the existing products and businesses. This problem is discussed by March and referred to as the "vulnerability of exploration" (see section 3.4.2), stating that the less certain returns from e.g. new innovations can lead to that the company focus entirely on exploitation. It is therefore quite natural that SCAP are a company that almost only works with incremental innovations since all the internal control mechanism are in favour of exploitation activities.

5.2.1 Risk-aversion

Risk appears to be another factor that has a large impact on the firms' attitude towards innovation. According to the theory of Fleming and Sorenson (see section 3.2.1), the choice of working with incremental or radical innovations are much related to how risk-avert the specific company is. The risk aversion in SCAP can be described as high, something that the company often exemplifies by its different control mechanism and lack of innovation incitements. The conservative culture seems to expect little or few innovation initiatives from the company and those taken concerns almost exclusively incremental such. SCAP's R&D department are involved in a few collaboration projects with local universities but the company as a whole seem to be careful and somewhat sceptic towards open innovation and similar ways of searching for innovations. Some people within SCAP still describe the company as entrepreneurial but the spirit seems to be on a more local level. The lack of incitements from the management to encourage innovation makes innovation a result of skunk work, e.g. employees putting in extra time and effort on a project in addition to their normal workload. This appears to be how the majority of all the internal innovations have been developed. The corporate culture seems thus to accept the incremental innovation work but it is far from encouraging it. Radical innovation is therefore far from being promoted in SCAP, having a culture that clearly favours the known before the unknown.

5.3 Organizational factors

Innovation appears to be affected by the structure of the organization and especially the degree of decentralization. The choice between being a centralized or decentralized organization can therefore have a large impact on if the company will drive more incremental or radical innovations (see section 3.4). SCAP is to be considered as a much decentralized organization with it's over 200 different plants being individual profit centers. This decentralized structure is in theory preferred when the local business conditions are relative specific and requires local knowledge. It seems thus quite logic that SCAP are using this structure, both since the packaging industry requires local knowledge of the market and since it would be difficult to run all the 200 box plants from a centralized position. In order for the

firm to drive radical innovation and to be explorative, theories also indicates that a loose and less formal structure should be used. This makes it interesting to analyze why SCAP, a much decentralized company, is working almost exclusively with incremental innovations, given its organizational structure.

5.3.1 The organizational structure

One major issue with SCAP's organizational structure appears to be that the decentralized structure is very much controlled through the profit centre approach. The company is focusing on controlling the organization almost entirely through financial measurements, making the plants operate as separate business units (see section 3.4.1. The strong focus on financial measurements, with its short term targets and concentration on profit margins, is not promoting innovation in the plant. The entrepreneurial spirit that some claim exists is thus much dependent on the local employee commitment. The packaging business also involves very heavy machinery which requires large investments in terms of money. Changing a product line or a machine is thus a very big decision for the plant. If the plant then is to change its machinery to start producing a new product that is hard to determine the future profit from, well, then it appears as if the plant would at least like to be evaluated on more than just efficiency. This new product may potentially be a very good investment for SCAP as a whole but the current structure encourages few such investments from the local plant. This appears thus to be a factor that partly can explain why a decentralized organization like SCAP is working so one-sided with incremental innovations.

Another important issue with the profit centre structure is that it seems to affect the collaboration between the different units in a negative way. Recent studies states that the profit centers approach can impair the relationship between profit centers managers (see section 3.4.1) something that the empirical findings in this study also clearly indicates. Managers in SCAP have stated at many occasions that the competition between the plants sometimes had negative effects on the overall result and that the profit centre structure was to blame. The will to share information is therefore not encouraged by this system. This causes problems in the knowledge transferring process and important information and experiences does not travel between the plants. This is shown by the lack of joint solutions for customer related problems and the little proactive work that exist. It seems as if each unit is handling it is own problems on its own way, not trying to use the synergies that could be possible. The problem is mainly that it exist little overheads on both regional and central positions. Transferring knowledge and information is likely to require more staff in order to be organized correctly. The benefit of being decentralized according to the profit centre structure is that it enables better knowledge of the local markets but the downside is that many resources are needed in order to coordinate the information. SCAP appears to have put little emphasis on the later, making it very difficult for the company to work proactively and too seek joint solutions. The low level of dialogue between the units leads to that little ideas or information concerning innovation is being exchanged.

5.3.2 The R&D organization

The R&D organization with its structure processes and general way of working has a large impact on how the organization works with innovation. It has become evident that SCAP is a company that has an R&D organization that is working in an ad-hoc manner. It appears as if the customers are driving the innovation and that they are the main source for new innovation ideas within the company. SCAP's way of working with innovation has thus some similarities with what Rothwell refers to as the second generation of innovation strategies (see section 3.2.2). This strategy is more known as the *Demand-Pull* approach since it argues that the

innovation demand mainly comes from the customers. The customers interact directly with different customers department e.g. marketing, who then passes on the information to the R&D unit in order for them to find a solution to the specific problem. This seems to be the way that SCAP many times are working with innovation.

The problem with this approach is that it can lead to a very short term focus, something that the empirical findings from SCAP clearly indicate. This could be seen as an explanatory factor for why SCAP only is working with incremental innovations. The fact that the company often is acting on a reactive basis makes it difficult for SCAP to identify and find solutions to problems or needs that the customer doesn't know that they have (or will have in the future). It is not wrong to listen to the customers and receive input on how to ameliorate the business but it will most likely only result in incremental innovations of the current business. The possibility to create a new need and grow the business is however not being considered in this approach. The ad-hoc approach in the R&D unit appears thus, according to this study, to be one factor that favors incremental innovations in organizations. This is an important observation that contributes to the understanding of what factors that impact and drive different types of innovation in large and established organizations.

5.3.2.1 A low level of interaction

Another issue particularly problematic for SCAP is that the *Demand-Pull* approach requires a good interaction between the different customer departments and the R&D unit. This is not the case in SCAP today, having problems with the knowledge transfer within the organization. This makes the current situation quite interesting since SCAP seems to be a firm that applies the *Demand-Pull* approach but without having a structure that is optimal for transporting information from the customer to the R&D unit. A better structure, greater market knowledge and more interaction with the customer would probably lead to that the customer could mediate even more incremental innovations than they do today. Important to bear in mind is that the *Demand-pull* strategy for innovation also is regarded as relative obsolete. It is far from the networking approach and open innovation strategies that are discussed in the fifth and latest generation categorized by Rothwell. The R&D unit in Sundsvall does have some existing collaboration work with universities and institutions, as previous mentioned in this chapter, but to a fairly limited extent. The packaging industry as a whole is very restrictive on collaboration work and this seems to impact the way SCAP are working with innovation. Recent theories stress the importance of being open to new ideas and to actively search for inventions outside the company. One reason for that is that many innovations that come from the internal R&D department tend to be of an incremental nature, something that the empirical findings from SCAP also show. Almost all innovation work at the R&D unit consists of improving existing business, leaving no room for the search of finding radical or breakthrough innovations.

5.3.2.2 New business is not aligned with the current business model

A problem discussed by Chesbrough (see section 3.2.2.1) is that even when the R&D unit comes up with a breakthrough innovation, the idea will be turned down due to that is not aligned with the organizations current business model. This could be referred to the famous term of "catch 22", thus making it impossible to come up with a radical innovation in this type of organization. This is partly the scenario in SCAP, recently turning down a potential acquisition of a start-up company with the justification that it was not "aligned with the current business".

Another good example of SCAP's core business focus is that the R&D department shut down the project called "Intelligent Products". The project group involved in this project had the mission to find more radical innovations and to focus on the firms' long term business. The project was however turned down after only a few years due to that the management believed the innovation results were too diffused and too far from the current business.

The empirical findings discussed above are very interesting since they correspond to the theories presented by Ayers and Colarelli O'Connor (see section 3.4.4). They argue that most new radical innovations hubs or internal venture groups only last 4-5 years before the corporate management becomes wearied of the groups' poor results and decides to terminate the project. This is regarded as an unwise decision by the authors since they argue that it normally takes a few years before such a group will learn how to work effectively with radical innovations. The problem of finding radical innovations that match the current business model of the company seems thus to be problematic. This appears also to have been the reason for SCAP to shut down their Intelligent Products project. The high risk aversion and the focus on the core business are thus two observations from this study that clearly seem to correspond with the existing theories in the field.

5.3.2.3 The lack of a radical competence set

A reason for that SCAP and the R&D unit in Sundsvall is working almost exclusively with incremental innovations is much answered by the fact that the company seems to lack many of the *competences* needed in order to come up with radical innovations (see section 3.4.4.2). The competence to *discover* new opportunities and to search for ideas outside the company appears to be limited. Some few external researches for hunting down new ideas are being conducted but the search and will to find and elaborate new opportunities is overall low. The opportunities that are identified receive moreover much resistance when being presented for corporate manager.

The competence needed for *incubating* new projects into the organization is further something that SCAP are lacking or at least are having problem with. The decentralized structure makes it difficult to spread information and integrate new business projects, especially since the company has a very lean central organization. The incubation competence also requires that the firm is good in experimentation and furthermore knows how to bring the product to the market. Both those qualities are to be questioned in SCAP. Experimentation is something that not seems to be synonym with the current corporate culture. The history of poor market knowledge with the pricing problems as a result further indicates that the competence required for incubation could be better.

Lastly, organizations seem to need an *acceleration* competence in order to successfully turn the radical innovation into a point where it can be separated from the organization. This means that the firm must be willing to invest in a separate infrastructure and supporting activities. The strong focus on cost and efficiency combined with the organizational structure of SCAP is not indicating that this is a competence that the firm possesses.

6 Conclusions

This chapter will present the reader with the final conclusions of this paper. It will furthermore discuss the validity of the research conducted and propose future areas to be studied.

6.1 Identified factors

The purpose of this thesis is to increase the understanding of factors that impact and drive innovation in large and established firms. In this paper, different theories concerning innovation, organization and market knowledge has been studied and compared to the empirical findings from the examined company SCAP. The observation made by the author has resulted in the identification of 7 factors that in a varied degree appears to affect the innovation work in the large and established firm.

6.1.1 The market environment

The market environment is a factor that has an impact on how the organization work and which types of innovation it is focusing on. The level of competition, the supply and demand ratio as well as the markets future growth potential are all factors that affects the current innovation work. The mature market with its characteristics of strong price competition and concentration on efficiency seems to influence companies to use a cost advantage strategy. The choice of adapting the cost advantage strategy makes the firm concentrating on short term profitability and exploitation rather than exploration. This has been the scenario in SCAP, thus corresponding with theories claiming that the focus in the maturity phase is on production and efficiency.

6.1.2 The organizations strategic focus

The strategic focus in the organization is a factor that this study claims to affect the innovation work in the company. A short term strategic focus and concentration on exploitation from the top management will inevitable lead to that the firm works almost exclusively with incremental innovations. The strategic intent of the firms is thus vital in determine what types of innovations the company will work with. The empirical findings further shows that radical innovations that are brought to the surface without the blessing from top management, most likely will be turned down. This study thus claims that the ability to work, come up with and finally get approval for radical innovations is strongly affected by the strategic focus from top management as well as their attitude towards innovation.

6.1.3 The level of risk-aversion

The degree of risk-aversion in the company is a factor that plays a major part in what types of innovation work the company will involve itself in. The observations made of SCAP during this study all indicates that the company is very risk-avert and put little value in exploration. This corresponds to their commitment to work with day-to-day innovations which offers faster feedback-loops and more secure (but lower) returns than does radical innovations.

6.1.4 The corporate culture and the firms history

Culture is an organizational factor that often is used in explaining abstract issues in scientific researches. However, it is the authors' strong belief that the corporate culture has a major impact on a firms innovation work. SCAP is foremost a company with a culture that best is described as conservative. The traditional mindset comes from the firms' long history as a

manufacturing company, seemingly affecting the decisions and views on innovation. The focus is on the core business and to ameliorate the existing products in the portfolio.

6.1.5 Incitements and control mechanisms

The types of incitements and control mechanisms that the company uses seem to have a strong impact on the firms' innovation ability. The observations made during this empirical study shows that the existing measurements in SCAP concentrate almost entirely on exploitation, resulting in solely incremental innovations. This indicates that companies that are, in similarity with the examined company, focusing on exclusively measuring performance on efficiency, quality, profit margins and productivity, most likely will end up with incremental types of innovations.

6.1.6 The organizational structure

The structure of the organization is a factor that clearly affects the innovation abilities in the organization. Organizational theory often claims that a high degree of decentralization favours the development of innovation within the company. In this study however, observations have interestingly shown that a high degree of decentralization does not have to drive and spur innovation in the company. The observations from the reported case rather indicate that a too high degree of decentralization can lead to that the innovation work only will consist of incremental innovations. The distance between the different units leads to poor knowledge transfer unless it exist a strong central unit that coordinates the information. The observations made also comply with recent studies stating that the profit centre structure impair the cooperation between managers. This paper therefore claims that a strong decentralization in combination with a profit centre approach inhibits a firms' possibility to create radical innovations. To be successful with radical innovations, it appears according to this papers empirical finding, that the firms' needs to have a relative strong central function devoted to work and coordinate this task.

6.1.7 The reactive approach

A factor that appears to affect the innovation work in the organization is if the company uses a reactive or proactive way of working with innovation. The findings from this study indicate that a very high level of ad-hoc work is likely to give the firm a short term focus concerning innovations. The majority of the input comes directly from the customers and concerns specific innovation problems of the present or the very near future. This leads to innovations that only have the ability to improve the existing products and services. In order to be able to come up with radical innovations, this study claims that the organization actively must search for the unknown and work proactively. The challenge lays in finding out where the next step in the market will be.

6.1.8 Final remarks

It appears as if we need to understand a range of factors to understand why organizations do or do not innovate. In this study, it has become relative clear that SCAP is a company that does not fully believe in growth through radical innovations. The strategic focus of the organization and the overall way of working is instead focused around the core business. The way to grow in the future is thus more likely to be through adding on new adjacent businesses, closely related to SCAP's existing products and offerings.

6.2 Validation and reflection

The fact that thesis is based on a single case study makes it not possible to generalize the results of the findings. The observations made from the empirical findings make it however possible for the author to discuss and to compare the findings with relevant theories in the field. The purpose of this paper has accordingly been to increase the understanding of the factors that affect innovation by comparing the empirical findings with the existing literature. In order to provide the reader with an as accurate picture as possible of both the examined company and the relevant theories in the field, much work has been devoted by the author to present a variety of information sources. A large number of interviews have therefore been conducted with SCAP employees at different positions in the company, increasing the likelihood that the author will reproduce a broad and correct description of the work in the organization.

The literature and the theories used have furthermore been selected with the ambition to look upon the discussed problem out of different perspectives. It is however important to notice that the phenomenon studied is rather complex, making it difficult to grasp. The reader should also bear in mind that the examined company has a much decentralized structure and is spread out over a large geographical area. This has, in combination with the restricted timeframe, made it more complicated for the author to fully cover the studied object.

6.3 Future Studies

This paper has, based on the empirical research conducted on SCAP, identified a number of factors that appears to affect innovation in the large and established organizations. The comparison between the empirical findings and the existing theorises in this thesis has however indicated that more empirical research should be carried out within this field of study. The author has especially identified a need for future studies to further investigate the correlation between innovation and the degree of reactive- ness in the firm, i.e. how is the overall innovation work affected by a reactive versus a proactive company approach.

Furthermore, this thesis suggests that future research should focus more on examining how the decentralized profit centre structure influence the general knowledge transfer within the organization. This appears to be a field where it exist a potential lack of both theoretical but mainly empirical research, something the author of this thesis has experienced in his search for relevant information.

Finally, the author believes that it would be interesting to more in-depth examine how the increasingly Pan-European customer behaviour will affect the organizational structure within the companies of the European packaging market. The future effects of the recently imposed European market regulations are yet another field which could be interesting for further studies.

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SCA Annual Report 2004

Interviews

Appendix 1 -Questionnaire

Innovation and organization related questions

How would you define innovation?

Which are, according to you, the primary objectives for Innovation in SCAP?

What is your view on the innovation work currently being carried out in SCA Packaging?

What types of innovations are mainly being carried out within your organisation?

How are you working today in order to drive innovation (incremental as well as radical)?

- Incitements, rewards systems, control functions etc?
- Do SCAP have an "internal marketplace" where new ideas can be marketed and sold?
- Customers as innovators?
- Collaboration work with other firms, network, suppliers etc?

How are you integrating new business and projects into the organisation today?

- Do you have examples of successful projects? If yes, what were the KSF? If not successful, why not?

What do you believe is needed for SCAP in order to be successful (or more successful) in organizing (encouraging) innovation?

- How should the governance of new business projects/innovations be carried out?
  - What roll should HQ have in innovation vs. Box plants, R&D?
  - Structure according to you?
- What measurement tools should be used for new innovations?

How is the general attitude towards innovation in SCAP? In SCA as a whole?

Do you collaborate with other firms/factories/companies in order to come up with new innovations?

How do you feel about the use of Venture Capital for Innovation?

- Is there a need for finding new technology and innovations outside SCAP? If yes, how do believe this should be organized? If no, why not?
- Main advantages and disadvantages?

Does SCAP use any kind of Scenario Planning etc in order to try to anticipate the future scenarios (e.g. emerging business threats)?

What do you believe are the Key Success factors for your plant in order to be successful?

What are the main challenges that SCAP are facing as a whole in order to be successful?

- Short term vs long term

Organizational and Sales related questions

What does your sales organisation look like today?

Please describe your customer structure as of today?

What are the strengths and weaknesses of today's sales organisation?

Have you seen any changes in the market the last years, has the consumer behavior changed?

Have the sales force way of doing business changed?

Is there a need for a more centralised or decentralised organisation?