Staying
Astonishi

- Innovation in a fast growing orga
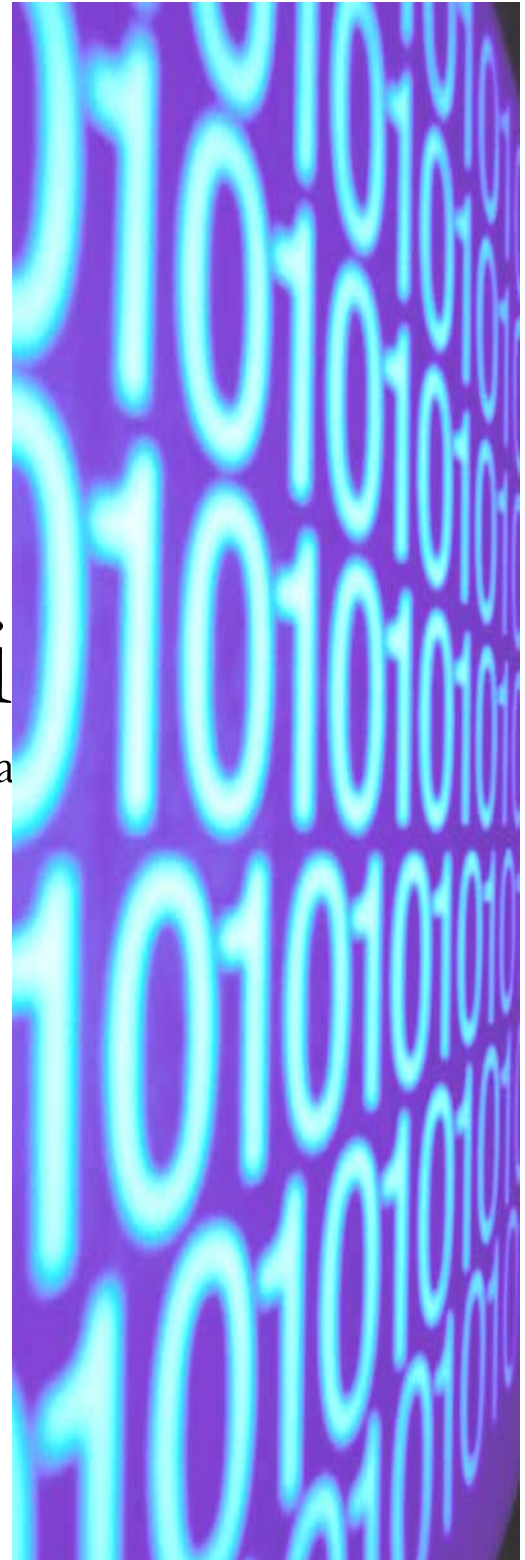
Handledare:
Christer Kedström
Fredrik Häglund

Författare:
Maja Beckman
Charlotta Simonsson

ABSTRACT

Title: Staying astonishing- Innovation in a fast growing organization

Date of Seminar: January 18, 2007

Course: FEK 591

Authors: Maja Beckman and Charlotta Simonsson

Advisors: Christer Kedström and Fredrik Häglund

Key words: Innovation, fast growing business, horizontal organization

Purpose: The purpose with this thesis is to investigate what supports the innovative capacity in fast growing businesses.

Methodology: In this thesis the critical case study is used. The Astonishing Tribe is a fast growing Technology Company established post the IT-boom, making user interfaces for mobile phones. For this research a qualitative method is used with an abductive reasoning where both theory and empirical results supports the results. For this study interviews with both founders and employees has been conducted with five key persons in the organization.

Theoretical perspective: The theoretical framework is based on a model made in 1997 by Tushman and O´Reilly. The model has been slightly modified in order to make it more applicable to our case study and to theories presented by other authors. The cornerstones used are people, formal organization, culture and external relations. Each area is further divided in sub-divisions to make the theoretical foundation deeper.

Conclusions: The congruence between cornerstones in the organization is the most influential factor of supporting an innovative climate. A willingness to take risk is identified as an important component to support innovation in all organizational blocks. We find the case company aversive to taking risks due to the experiences during the intense IT-boom of the early nineties. The future support of innovation within the case company is therefore questioned.

List of content

1. | Introduction

This chapter begins with a general introduction into the subject and leads to the problem discussion. The purpose of the thesis is explained as well as its structure.

1.1 Background

Thales of Miletus in ancient Greece started experimentations with electricity. The telephone was invented by Alexander Graham Bell in 1876, an invention later evolved by Martin Cooper to a portable device called cell phone. The first one was tested on a street corner of New York in 1973 and 34 years later the device is in everybody's hand. The great innovations of our time have put a mark in history, and new innovations continue to do so. The attitude towards new ideas and innovations vary a lot between individuals. When the chairman of IBM stated, "I think there is a world market for five computers" in 1943, he was obviously wrong. The future is impossible to predict and the closest one can get is through guessing. Firms and managers continually speculate on what will be the next hype, and what products will become future successes. Often it is stated that the market demand fast supply of new products, and that the life cycle of a new product is extremely short (Peruvemba & Rosenblatt, 2003). If this is the case, innovations are invaluable for the future existence of a company. When a company has found a way to profit from their business and to survive on the market, they will continuously get exposed to new strategic difficulties. The difficulties consist of the ability to stay in the forefront of the business area and at the same time handle the growth of the company and develop new ideas.

Is innovation the best solution to keep growth in a company? The word innovation can be found on websites, in company presentations and in management literature (www.pg.com; Stalk, 2006; Thomke & von Hippel, 2002). Brady (2006) claims innovation to be the new buzzword, and innovation is said to be the only way a business will survive in the new millennium. Innovations are a must for the future development and expansion of the organization (Cebon & Newton, 2006; Stalk, 2006). Further on is innovation represented in the debate of what factors actually create economic growth. Joseph Schumpeter was one of the first to underline the importance of new products for economical growth. (Trott, 2005) According to Crainer (2005) the professor *Gary Hamel* has stated that innovation is the only thing that really can improve welfare. Aligned with

this is the reasoning made by William J. Baumol, who claims that innovations explain all the development made since the beginning of the industrial revolution (Wetterberg, 2004). However, not everyone share the opinion that innovation is a prerequisite for economical growth. The founder of Ahrens & Partners believes that this is a myth. He implies that many companies rarely develop their own ideas and products; instead these innovations are bought, borrowed or copied. (Dagens Industri, 2005) There are many thoughts in this area of subject, and whether they are pro or con, it implies that innovation is an important subject, worth addressing.

1.1.2 Previous research

To clearly define and motivate our choice of subject, we examine previous research made by fellow students with the ambition to fill a gap of information concerning this subject. A search for studies focusing on innovation in Xerxes, the thesis database for Lund University, gave us 12 hits. However, we only consider three of these to align with the purpose of our thesis. In a master thesis written at Lund University by Nilsson and Arbnor (2006) the authors investigated factors that endorse or inhibit product innovation. This research is related to our subject regarding factors promoting innovation. Also in another thesis similar perspective is chosen in exploring innovation. Pagels, Hässler and Lindblad (2005) study how firms can generate innovation in *"The Innovation Value Chain"*. Wallin, Arwidi and Åkesson (2005) write about the role organized and spontaneous networks play for small businesses with an innovation. This thesis aligns with ours since it focuses on small businesses and how the networks affect innovation. In these studies a demarcation is made from our thesis since ours aim to identify key factors supporting innovative capacity in a fast growing business.

By searching the thesis database for all Swedish Universities (http://uppsok.libris.kb.se/sru/uppsok) the number of results increase. In a study done by Navest and Zilch at Linköping University the authors investigate the innovation process in small process software companies. This can be comparable to TAT since it is a case study and concerns technology companies. Also in a master thesis at Gothenburg University innovation is studied. In 2003 Larsen and Mattila presented the thesis *"In search of innovation"* where they studied how to create innovation in an organization. Their research present theories in knowledge management are also a factor in our model of innovation. Even though these studies align with our research to some extent, all of them differ from our subject regarding our concentration on fast growing organizations.

1.2 Problem discussion

How is an innovative organization built? This major research question is a base in further problem discussion. There are different opinions about the factors in an organization that facilitate innovation. Several authors have proclaimed that innovation is best created in an open organization. Adams et al. (2006) argues that the open work environment endorses creative and innovative behaviour. The organization has to be able to provide enough freedom to allow exploration, but also control to manage innovation in an effective manner. Also Tidd, Bessant & Pavitt (2005) discuss how to create and maintain an innovative organizational context. The authors are critical to bureaucracy, lack of communication and inflexible structures in sustaining an innovative organization. However, these factors will easily emerge in an expanding organization, where the number of employees enlarges and the management becomes more distant from the staff. Kruger (1997) describes flat organisations as companies where the employees have more decision-making power, greater responsibility and a wider range of tasks to perform. These characteristics are likely to increase the self-confidence and commitment of the employees, and the strict division between work and play is expected to disappear.

During the late nineties Sweden experienced an explosion of companies entering the Information Technology industry[1]. These "*dotcom*" companies were often characterized by a new kind of leadership style, based on a flat organizational structure containing a playful attitude and a mentality based on learning by doing (Vision, 2005). Companies with these characteristics grew extremely fast and their visions demanded large amounts of capital. The access to money was the smallest problem since many investors wanted to be part of their success stories. (Krook and Rasetorp, 2001) Many times the playful atmosphere took over and as the organizations grew, the management was not prepared for the demands that came as a result of the expansion (Elmbrant, 2005). The Astonishing Tribe (TAT), the case company analyzed in this thesis, is a company in the telecom industry with similar characteristics as the companies in the dotcom epoch.

---

[1] This epoch is referred to as the IT-boom, and started in the beginning of the ninties. Several IT companies, also known as dotcom companies, expanded during this period with help from investors. Many of the founders where young entrepreneurs that could not live up to the expectations from the market. The dotcom companies where overvalued and after a rapid increase of the stock-market, the bubble crashed and several businesses where put out of business.

Tushman & O´Reilly (1997) discuss how an emerging organization will be successful because of characteristics like new technologies, innovation and flexibility. In a mature market cost, efficiency and incremental innovation are important factors. Although TAT is growing they are not in a mature business but with growth the managing style and structure will have to change. As TAT are expanding the organization becomes more hierarchical, and the open structure with good communication will become more complicated to maintain according to co-founder Hampus Jacobsson. In this culture lies the creation of innovation and creativity, so how can The Astonishing Tribe maintain the innovation capacity as the company grows and their structure changes?

1.3 Purpose

The purpose of this thesis is to investigate factors that support the innovative capacity in fast growing businesses.

1.4 Structure

Chapter One
The introduction and information concerning background and purpose of this thesis

Chapter Two
Methodology is discussed in this chapter with its qualitative and abductive approach.

Chapter Three
The case and its context is described to give a full background to our readers.

Chapter Four
A model of Tushman and O´Reilly (1997) is used as a framework for chosen theories.

Chapter Five
This chapter consist of the empirical findings from the case company, TAT.

Chapter Six
The analysis with a summary of the findings is presented in this chapter.

Chapter Seven
Includes the results of our research and suggestions for further research.

2. | Methodology

This section aims to give an understanding of how we have structured our thesis. The case company and interviewees are presented. Methods of research are explained to give a description of how the have helped to create a stringent study.

2.1. Qualitative research

Lundquist (1993) argues that there is no objectivity instead reality is interpreted differently depending on by whom and when the research is done. We do not aim to tell an objective truth since it is difficult to find. This thesis is based on *inter-subjectivity* where the common understanding and consensus among a large group of people create the closest thing to reality (Jacobsen, 2002). The selection between quantitative and qualitative study is the choice between range and depth (Holme & Solvang, 1997). We wanted to make a study within the area of innovation. The quantitative approach with the broad perspective would not give details and the depth strived for. A qualitative research method would provide details and allow us to make close contact with a case company. Patel and Davidsson (1995) means that the qualitative method provides more explanatory and in depth information regarding the specific area of interest. The specific interest of innovation in a growing business makes the qualitative approach most suitable. To describe a growing organization and the obstacles yes-/no- questions would not present the full picture and through this a quantitative approach is eliminated.

2.1.1 Method of reasoning

For this thesis an abductive method of reasoning is chosen where the theory and empirics together is a foundation for our results. Jacobsen (2002) describes the two most common methods of reasoning, deductive and inductive reasoning. Deductive involves proving a hypothesis through theories and principles before testing it in reality. Inductive reasoning works in the opposite direction, through observation the researcher accumulates data that later function as a foundation for new theories. Patel & Davidsson (2003) explain the abductive research method as a combination of inductive and deductive methods. We have no hypothesis that we aim to test in reality and no initial observation that can function as a foundation for new theories. Since we have a case study where we aim to analyze theory and empirical results in a stochastic order, the abductive method of reasoning becomes a natural choice. According to Patel et al. (2003) this is the most

recent approach that makes it possible for the researchers to connect theory and reality. We consider the abductive method to increase the flexibility of our work since we do not have to follow a certain resolute pattern. To make the comparison between theory and reality as valid as possible, we have chosen a case study that we consider to illuminate our purpose and research. From the start TAT underline the importance of innovation for their future growth as well as they are worried about the effects their expansion will have on these processes.

2.2 The Case Study

The case study has become more popular within organizational research since the researcher can gain an understanding of the whole organizational complexity. Artificial and oversimplified studies can be avoided and instead, a holistic view can be gained according to Lundahl et al. (1992). The case study is preferred when the questions are *how-* or *why-* questions (Yin, 2002). We aim to describe factors that support innovation in a growing organization. We have used a case company to see how they support innovation at the moment and the study will aim to find implications for what can happen in the future. Yin argues that a case study is suitable when a contemporary phenomenon is investigated. Innovation has been discussed for a long time, an example is *The Management of Innovation* written by Burns & Stalker in 1961. The context and businesses continually change and so does the discussion concerning innovation. Therefore we argue that the problem we aim to investigate is not historical but modern. The option to generalize based on the case study is reduced according to Patton (1990). Yin (2002) describes the case study as a research strategy where the empirical inquiry examines a phenomenon within a certain context. The case study can be based on a mix of qualitative and quantitative research. The *critical case* discussed by Yin (2002) is defined as a case having strategic importance to the general problem. Such strategic sampling will save time and effort. Finding the most suitable case for the study becomes important. If this is achieved, the ability to generalize becomes larger since one can say "if this is true for this case, it must be valid for others" or vice versa.

We have not found prior research concerning a company's growth connected to their innovative capacity. Therefore we strive to make a deep explorative research with a case company as foundation for empirical findings. Not having several cases gives us the opportunity to explore further how TAT handles innovation. Focusing on one specific

case diminishes the chances to generalize but it provides an in-depth explanation of how the company is operating.

2.2.1   Selection of the case company: The Astonishing Tribe

The case study discussion enlightens the importance of selecting the right company. The choice of TAT is based on the interest in fast growing companies and innovation. Initially innovation was the main area of interest and the method of researching the subject were discussed. During the first days of this course we had a meeting with our teacher Fredrik Häglund and a case study on TAT was discussed. Also when selecting case company we looked for a firm that has been successful the last couple of years and therefore have been growing. We wanted a company that involved innovation as an important part of their strategic decisions. Later we also learned that the success TAT had is based on congruence between strategy, culture, people, formal organization and critical tasks in accordance to the model of Tushman & O´Reilly (1997). This has supported our reasoning that this company is a suitable representative for parts of the IT-industry. Tushman et al. (1997) use the expression *"The Success Syndrome"* (p. 29) where congruence creates success. When the organization grows larger and more structured as a consequence of success inertia occurs. Environments changes will cause the organization to fail. The model of Tushman & O´Reilly (1997) will be discussed further in chapter four. Innovation has been an important ingredient in the company's development according to co-founder Hampus Jacobsson. What is also interesting is the fact that TAT is in a changing phase; they are expanding rapidly which means that some things in the organizations will have to change (Ludvig Linge). In 2006 the company won the title Sweden Technology Fast 50 Award in the category Rising Star. Since 2002 TAT has grown with 1435%[2]. Because of this growth TAT has to find new ways to work as a larger company. The fit between research subject and the phase TAT is in was a good match. TAT is about to take a step from being a small, easy to manoeuvre business and growing into a larger company that might need a different managing style. Transitions create a challenge and therefore become interesting to investigate. A discussion with co-founder Ludvig Linge established the fact that keeping the innovation climate while growing is a difficult task. What is obvious from the interviews is that TAT from the start was in a position where the organization was rather easy to manoeuvre. The six founders started the company "for fun" and according to Hampus Jacobsson the money was "just

---

[2] More about this award can be read on (http://www.tat.se/news/2006/11/17/tat-winner-of-sweden-technology-fast-50-rising-star).

a bonus". The company is based on friendship and the founders mostly employed people they already knew or that were recommended to them. The communication was very open, and new ideas could appear at any time. (Tina Kaikkonen) The friendship and doing what was fun was congruent with strategy, culture, culture, people, formal organization and the critical tasks. All founders had a clear objective with the firm and what goals they wanted to reach. Creativity, speed and innovation were the cornerstones and they tried new things to find their niche according to Ludvig Linge. The change into a larger organization will require adaptations that we find interesting to investigate.

2.3   Selection of information

This thesis concerns a popular subject. When the word innovation is used in a search engine like Google[3] a numerous amount of hits is generated. To attain the most recent research our focus has been on articles published in well-known and established magazines. During the search databases available through Lund University was used. Key words in the search have been *innovation, fast growing business, horizontal organizations, critical view on innovation, innovation and marketing, change, technology companies.* Some of the information is considered reliable but when that is not the case, it has become of utmost importance to verify the information with additional sources. A large amount of articles and literature has been reviewed to attain valuable information for this thesis.

2.3.1 Personal interviews

The empirical research in this paper is mainly based on personal interviews with management and employees in leading positions. By visiting its premises the researcher forms an impression about the company (Jacobsen, 2002). An extra advantage to meet in person is the non-verbal information it can provide (Holme et al. 1997). However, personal interviews can be both time- and resource consuming which favours a limited number of the interview objects. Respondents were therefore carefully chosen and we focused on people with deep understanding of the business. This is important since the reliability of the research is diminished when the number of respondents is limited (Kinnear & Taylor, 1991). During the interviews it was arelaxed atmosphere and no hesitation to answer was noticed. Through the whole process TAT has been willing to be of assistance. The interviews with TAT are performed on different occasions. Two of the

---

[3] Google.com is the worlds largest search engine with the mission to organize the world's information and make it universally accessible and useful.

respondents are founders and the other three are employees who entered the company at different periods of time. Since the founders and employees have different experiences from their time at TAT we believe this will nuance the results. Patton (2002) identifies three different ways of conducting interviews: an informal discussion, interview based on a general interview guide and a standardized interview. In this paper semi-structured interviews are held in order to acquire a sense of direction, but also to stay open for what the situation offer. Complementary questions were asked when needed and a presentation of the questions was emailed to the company beforehand. After every interview we felt content with the information and this supported the choice of semi-structured method. We decided to make interviews early in the process to understand what the company does and aim for. Later when our theories were chosen we made another interviews to make sure we had all the answers we needed.

We have interviewed the following persons at The Astonishing Tribe,

October 4, 2006. **Hampus Jacobsson**, co- founder and Vice President for Business Development Hampus Jacobsson provided us with information about the organization in general and the different functions in the company.

October 4, 2006. **Ola Larsén**, Vice President of Marketing. Ola Larsén is recently recruited in the company and provided us with information about his view of the organization as an employee.

November 29, 2006. **Ludvig Linge,** Co-founder and prior CEO. Ludvig Linge possess information about the company and its innovation processes in general. Ludvig Linge was up until recently the CEO of the organization, and have been involved in all the functions in the organization.

December 14, 2006. **Fredrik Ademar,** Chief Technology Officer. Fredrik Ademar is involved in the innovation processes and development in the organization.

December 14, 2006. **Tina Kaikkonen,** Office Manager. Tina Kaikkonen began working in TAT in 2003, when the business consisted of 12 employees. She started as an assistant producer, and today she is also a part of the executives.

2.4   Validity and reliability

The combination of validity and reliability must be considered when securing the quality of the study (Holme & Solvang, 1997). Validity can be divided in two parts, inner and outer. According to Merriam (1994) inner validity refers to the study measuring what it is suppose to measure. We are two authors of this thesis and our supervisors review our

work throughout the process. This secure that we continually change and develop our reasoning. However, since the interviews are semi-structured the respondents have the opportunity to drive the discussion in a certain direction. The answers and information is not always what was aimed for, which means that we have to be selective when using the material to get the right results. Outer validity is concerned with generalising the study to other contexts. Yin (2002) argues that a case study cannot be generalized. We understand the limitation of this study and will be careful when considering our results.

Reliability refers to the process and how well the study is performed. Another researcher should be able to conduct the investigation and get the same result (Merriam, 1994). The case study examines human behaviour and must be viewed as something constantly changing, which makes it less interesting to repeat the study and examining the result (Merriam, 1994). Since this is a contemporary study new aspects would be found if conducted during a different period of time.

2.5   Method of Analysis

The model of Tushman et al. (1997) provides a method to conduct a congruence analysis. This method starts with analyzing the performance gaps, followed with describing critical tasks and work processes. Step three includes checking for organizational congruence. Four is solutions and five is observation of response. This method of analyzing the case was not possible since no obvious performance gaps were found in TAT. Instead we have developed a theoretical framework based on this model but combined with other authors' arguments. The significant factors for innovation are crosschecked against TAT empirical answers and serve as a base for the vertical analysis. The congruence or fit between components is discussed throughout the analysis and the result is presented in chapter seven. As a theoretical framework this structure has been helpful. Throughout the thesis a common theme of balance have been present. A summary of most significant themes in the analysis will be presented last in chapter six. This to give an perspective of important findings.

2.6   Criticism of the study

Jacobsen (2002) highlights the importance of questioning your study to find strengths and weaknesses. Our aim is to make a case study of a growing company. With the use of the case study depth should be obtained in the research. There are some doubts concerning

whether this has been achieved. The questions asked during interviews were not always the same to all respondents. When we had the answers to a question we were content, we then asked new question to attain more information. This makes the respondents subjectivity and influence greater. At the same time this provided us with a broader understanding of how the organization was functioning. When obtaining more information about innovation theories we changed the questionnaire to attain answers necessary.

The selection of interviewees was not spread on different levels of the organization only management was selected consisting of both founders and employees. This selection was made in order to get access to people with an overview and deep understanding of the company. Interviews with employees could have created a more nuanced picture. When reasoning about this we questioned the quality the answers from employees would have. Since the case study aims to attain depth we also wanted representatives with deep understanding about the firms goals, vision and way make strategic decisions. Time limitations and access to the firm made a selection necessary and this imposed the decision to choose management representatives.

3. | Case and Context

This chapter aim to describe the case company and the context surrounding TAT. Definitions of the term as well as the importance of innovations are clarified. Finally an explanation of fast growing businesses is described.

3.1 The Astonishing Tribe

When the ancient Greek Thales of Miletus started his experimentations with electricity and Alexander Graham Bell later used it for his telephone they would never have guessed what their innovations would lead to in the future. No longer is it just communication that is enabled by cell phones, also the experience when ringing is important. TAT has become successful because the demand for visually appealing user interfaces in cell phones. Six friends sharing the same passion for digital visual experiences founded the Astonishing Tribe in Lund, Sweden in 2002. The founders believed that through the combination of aesthetics and technology they could succeed while applying this in the mobile industry. They wanted to create more visually appealing devices for mobile phones than the ones offered in the market, and today they are offering products and services to enhance the user experience of portable devices.

Vision:

"To become a global leader in beautiful, usable, and high- performance user experiences on mobile devices"

TAT is self funded and has been profitable since day one. They have around 70 employees today, consisting of graphical designers, interaction designers, engineers and innovators. Most of the employees are situated in their office in Malmö, Sweden. Other offices are located in Gothenburg and Korea.

3.1.1 Products

TAT offers products enabling their customers to create better and more visually appealing mobile user experiences. *TAT Cascades* acts as the core product and is a complete mobile user interface framework. Example of their work is available in chapter Five and Appendix IIII. TAT Cascades makes it easier to build a selection of unique, graphically intense and powerful software solutions. Cascades are built on *Kastor*, which is

a platform enabling advanced design with small processors. TAT calls Kastor the *"sandpit"* where the software can be created through different tools. The designers can in an easy way to create their animations and graphics for the software within the limits of the sandpit, which means designers and technicians can cooperate without too much interference in each other's work. TAT sells Kastor to their clients, who uses the program to create their own icons, menus and likewise. TAT is constantly developing the tools used in Kastor, which enable even more powerful function and design. This means that even if the customers buy Kastor they are still dependent of TAT to create new technological solutions or "tools" that can be used in Kastor. Employees from TAT function as consultants in their clients businesses. An authoring tool also developed called - *TAT Motion Lab*. TAT Motion Lab is a PC based tool for building advanced mobile user interfaces with a range of exciting effects, giving complete control to usability and interaction designers.

> *"TATs core competences involves the integration of technique and design, offering a good quality on their products, and deliver the products fast and effective."*
>
> *- The Astonishing Tribe*

Kastor is mainly sold in the mobile industry and their clients consist of SonyEricsson, Nokia, Samsung, Obigo, Telia Sonera, Tipcom and Orange. TAT is constantly developing the tools used in Kastor enabling new software, which means that even if the customers have bought Kastor they still need TAT to be innovative and developing new tools that can be used in the Kastor framework.

3.2 The importance of Innovations

"... innovate or die. The process of innovation is fundamental in creating and sustaining a healthy and viable organization. Those who do not innovate ultimately fail" These words where spoken by a senior manager in the food industry and the importance of innovations are something that is constantly endorsed (Martin, pg.67, 1994).

3.2.1 Definition of the term

The term *innovation* is ambiguous and does not have one single definition. Adams et al. (2006) defines innovation as *"the successful exploitation of new ideas"*. In *Managing Innovation*, Tidd (1997) describes innovation as change. The change can take form through the

products/services the company offers or in the change in the way that they are created and delivered. These different changes are often known as product and process innovations. (Tidd, 1997) Many authors share the view of innovation as a process. According to Trott (2005) this process starts with an *invention*, which then leads to a finished and commercialized product. The author suggests that innovation should not be viewed as one single event, but as a series of complex occasions starting with an invention. Man (2001) suggests that the keyword for innovation is *implementation*, where the ideas and creativity becomes tangible in the innovation process. Invention means that new products and processes are created through the development of new knowledge (Grant, 1994). The starting point of innovation is an idea, an invention. The whole process of idea, implementation and commercialization is referred to as innovation. This definition concludes the different parts of innovation, which makes it useful for this thesis.

Many authors have demonstrated that the work environment makes a difference concerning the level of innovation in an organization. Adams et al. (2006) argues that creative and innovative behaviour is endorsed by factors in the work environment. Because of this organizations can create environments where innovation is encouraged. He presents findings from different authors that suggest a two-stated organization, moving between loose and tight. The organization has to be able to provide enough freedom to allow exploration but also control to manage innovation in an effective manner. (Adams et al. 2006) This subject is further discussed in an article written by Bodell (2006). The author implies that in order to be creative the environment has to be adequate, an argument based on a survey made by futurethink[4]. In an interview with Steve Brown, Vice President of Innovation for KitchenAid, he means that "just putting a team together to be creative" will not achieve a high innovation level. It is suggested that it is the corporate climate that gives people the space to experiment and take risks. (Bodell, 2006) As described above many authors discuss creativity to be part of the innovative process. According to Amabile (1998) creativity is the starting point of innovation and therefore an important part of invention.

---

[4] The entire survey can be downloaded from www.futurethink.com

The innovation process can be broken down into different parts presented below.

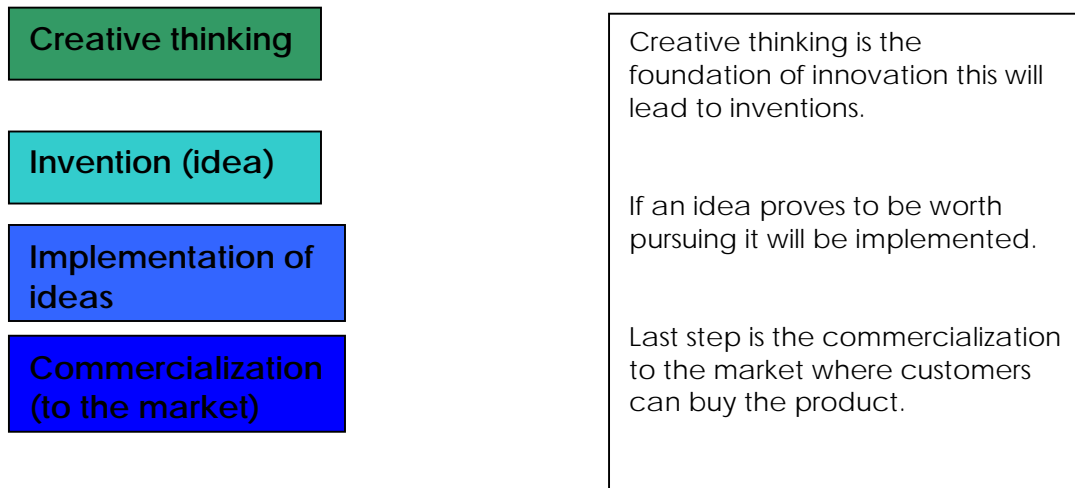|	
Creative thinking	Creative thinking is the foundation of innovation this will lead to inventions.
Invention (idea)	
Implementation of ideas	If an idea proves to be worth pursuing it will be implemented.
Commercialization (to the market)	Last step is the commercialization to the market where customers can buy the product.

Figure 1. A model to visualize the innovation process.

3.2.2 Innovation according to TAT

According to Ludvig Linge innovation is important to be able too keep up with the market development. He means that TAT has to be five steps ahead of their clients and competitors. Their major potential competitors are their customers, who can develop something similar to Kastor in the future. That means it becomes essential for TAT to always develop and offer new products and "tools" to keep their position as "the best in the market". Ludvig Linge means that there are three things that generate innovation: openness, skepticism and to employ inventive people that has a passion for innovations. In their organization they have three types of innovation.

➢ *Technical innovation-* to find new paths in the technical development that can be used in the creation of new products.

➢ *Design innovation-*find new types of design and to be creative. Get inspiration from the design-teams working with their clients, and bring these ideas back to the company for further development.

➢ *Market innovation-* new ways to package the products. This can consist of "glossy power points" and similar methods to make their products and services more appealing.

This thesis will use a broad definition of the term innovation. This is because of the broadness in the definition TAT use and also to enable the use of multiple authors within the area of innovation.

3.2.3 Environment for innovations

There are several authors presenting the same ideas of how to generate innovation in an organization. Tidd et al. (2005) declare the importance of communication networks regarding innovations. This theory is already presented 1982 by Lipnarck and Stamps in their work to understand the development of companies. Tidd (1997) is critical against bureaucracy, unhelpful structures and lack of communication in building an innovative organization and maintaining a creative organizational context. However, he implies that not all organizations work under these conditions, and that they are not prerequisite for an innovative organization (Tidd, 1997). Innovation occurs in organizations with all kind of structures. Nevertheless, the majority of authors in this area underline the importance of an open organizational structure in order to facilitate innovation.

3.2.4 Fast growing businesses

"If your company is getting a whole lot bigger every month, you must be a genius, right?"

- Daniel Roth, Fortune Magazine

This quote can be questioned for many reasons, is it the ideas creating fast growth? The operational excellence? Great managers? The best marketers? No matter the reason a fast growing company is characterized by their focus on the end product or service according to Ahrens et al. (2000). The organisation focuses their core competencies on their primary products and innovations. Another characteristic is that these organizations create a market, where they can offer the customer new technology and experiences and in the same time be steps ahead from their competitors. The Swedish business magazine Dagens Industri[5] has developed an expression for fast growing businesses, the *gazelles*.

---

[5] Dagens industri is an Swedish financial newspaper in tabloid format. It was founded in 1976 and is owned by the Bonnier family.

The prerequisites to become an gazelle is according to Deloitte[6] the following:

➢ The company has at least ten employees

➢ A yearly turnover of over 10 Million SKR

➢ Continuously increased turnover during the last three years

➢ During the same period doubled their turnover

➢ Organic growth, without mergers or fusions

➢ Four yearly revenues have been made public

➢ Positive result in the last four years

These are characteristics that TAT fulfils.

---

[6] Deloitte) is one of the largest professional services firms in the world, and a Big 4 accountancy firm in addition to its accounting practice, They also have a large business advisory, unit providing strategic and operational management consulting services to Fortune 500 companies.
http://www.deloitte.com/dtt/section_node/0%2C1042%2Csid%25253D22635%2C00.html

4. | Theory

Presented in this chapter are the theories chosen for this thesis. A model from Tushman and O´Reilly (1997) serve as a structure. The chosen theories function as support when analyzing our results and facilitate the fulfillment of our purpose.

4.1 Factors shaping Innovation

Tushman and O'Reilly (1997) use a congruence model of organizations where strategy and four building blocks construct an organizational architecture. Strategy needs to align with the building blocks: people, culture, critical tasks and formal organization. *"Incongruence, a lack of alignment or inconsistencies among these elements is almost always the root of today's performance gaps"* (Tushman et al., p. 58, 1997). This model will be used to create a framework to the chosen theories. We will focus on finding the factors that support innovation. Since congruence most likely was achieved in the early days of TAT it becomes interesting to analyze the implications growth have. The journey taken involves new challenges and keeping a fit between strategy and the different building blocks is of utmost importance. We will describe factors that affect innovation in this chapter and the congruence will be analyzed in chapter six.
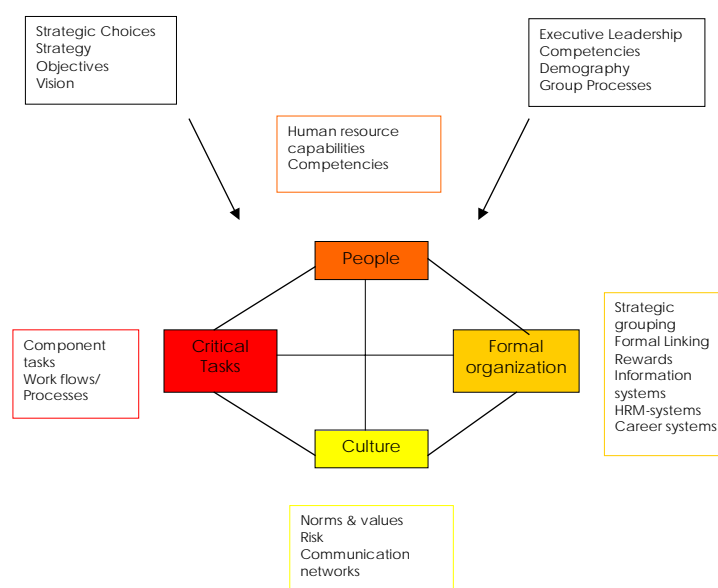

Figure 2. Model of Tushman and O´Reilly (1997).

By mixing literature that discusses different elements of innovation we defined a new set of factors that will develop innovation. This thesis is based on a case study and we have chosen an abductive research method. The empirical findings have therefore forced us to modify the model of Tushman et al. (1997) to make it more adequate for our research. Some factors in the model have been eliminated and others were added. The objective for the chosen model is to identify performance gaps in an organization. During interviews with TAT we have not been able to identify performance gaps instead we focus our thesis on finding implications for what could create incongruence in the future. The following section will present the factors chosen as well as the model it self.

The *people* dimension includes human resource capabilities and competencies according to Tushman et al. 1997. The factors we have identified in the literature is similar but still a bit modified, human resource capabilities is included under employees. Management creates the second headline in our people chapter. This is not a big change but to create a fit to other authors we chose to make this adjustment.

Culture in the book *Winning through innovation* (Tushman et al. 1997) uses norms and values, communication networks, informal roles and informal power to analyze this area. Our model includes, norms and values, risk and communication networks. The areas of informal roles and power are information that would need more time and resources in order to be properly evaluated. The management's will to take risks is an element that needs to be embedded in the culture (Stalk, 2006; Kim et al., 2002) and therefore we have chosen to add this dimension.

Formal organization consists of strategy, rewards, vision and future, and information system in this thesis. Tushman et al. (1997) also include strategic grouping, formal linking, human resource management systems and career systems. Some of this information is embedded in other headlines but some factors are too extensive for us to cover in regard to limitations. We still believe the essence of formal organization is captured.

The final building block is *critical tasks* including component tasks and work flow/processes. We have chosen to eliminate this perspective since it would be difficult for us to attain this information, simply to ask would not present the full picture. To check the congruence between building blocks and critical tasks it becomes important to find the correct critical tasks, which is not easily identified. Creating a questionnaire and extract the right information would be to be time consuming regarding the natural limitations of thesis. It would require in-depth study of TAT and their work for a longer time. Instead *external relations* with clients and consumers were chosen. A small but

growing business will not survive without their clients (Chakravorti, 2004). Analyzing the congruence with other building blocks highlights the focus TAT have on clients. The literature included in the master course in Strategic Management highlights the impact customers have on innovation and this supported the choice of external relation perspective. Further, TAT work in a business where they have clients that sell to the end consumers, which are the people actually using the phones with their user interfaces. Leveraging between what their clients want and what their end consumers want. The client does not always know what the consumers desire. Important to know is that because of this we are separating these two.

Human resource
capabilities
Employees
Management

People

Clients
Consumers

External
relations

Formal
organization

Strategy
Rewards
Vision
Information
systems

Culture

Norms & values
Risk
Communication
networks
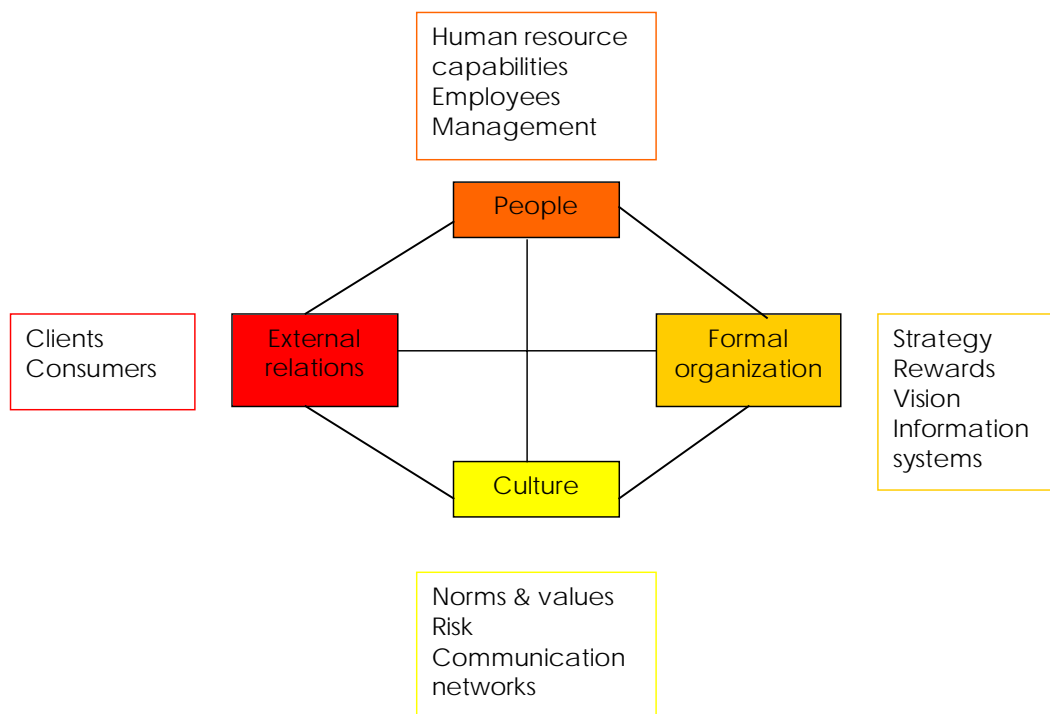
Figure 3. Tushman & O´Reilly (1997) The adjustments we made are represented in this model.

4.2 People

Within the organization, the input from people is critical in order to stay innovative. The bottom-line is that people are creating innovations. In order to create an environment to make innovations happen a support system from processes, capital and other physical resources is needed (Adams et al., 2006). The two most crucial components in selecting people for the organization are knowledge and passion (Kim et al., 2002).

4.2.1 Employees

The employees' ability to change is important for the organization to be innovative (Cebon & Newton, 1999). An openness to change the organisation, as well as the individual ability and motivation to change, affects whether the innovative ideas will flourish (Adams et al., 2006). Eneroth & Malm (2000) argues that traditional firms may have resistance to change while it is another logic in high-tech firms. They are ready for change and see it as a prerequisite for success.

Damanpour (1991) argues that innovation outcome is dependent on the diversity of skills and experience of the employees. By this the author is saying that people within the business cannot be a homogenous crowd. Further on it is argued that demographic characteristics should be mixed in the work group to affect innovations in a positive way (Amabile, 1998). Educational background is also preferably varied according to Adams, Bessant and Phelps (2006) and high education together with self-esteem creates the best base for innovative teams. Excitement over the common goals within a team is another important feature for creativity, as well as helpfulness towards team members and the understanding of other people's knowledge (Amabile, 1998). There is also a need for management to be clear about how the firm strive for innovation. The individuals working within the organization often demands a clear objective, and to achieve innovation right procedures must be highlighted. Four perspectives are suggested to further create a good climate for innovation: participation from team members and their security in making suggestions, practical support, vision and commitment from team members. These factors supposedly, can be measured and supported. (Andersson & West, 1996) The sources of promising ideas should be identified and sustained since this generation of ideas demands in-depth knowledge and expertise (Kim et al., 2002).

4.2.2 Management

Managers that understand the significance of ideas are important for the creative business. Not to say all ideas are worth pursuing but managers have to have the ability to appreciate them with proper evaluation. It can be easy to just dismiss an idea without even considering the positive effects it could generate. This can have several reasons according to research done by Amabile (1998). The author present the fact that dismissing an idea can make the employee appear smarter in front of their bosses. Successful creative organizations freely and generously recognize innovative work. Kim et al. (2002) explains how an idea generated in the organization either can be selected for further development

or be abandoned by the management. A common mistake is that the abandoned ideas get undocumented. The negative aspect of this is that future position and strategy of the company may make the idea valid. In the article *"How to kill creativity"* the author Amabile (1998) discusses how managers tend to crush their employees' motivation of doing things based on interests and passion. Productivity, efficiency and control undermine creativity although they would not have to. Maximizing these business imperatives may include creating an organizational design where creativity systematically gets killed.

Making a good match between the task and the employee is the managers' most difficult job. If the match is perfect, the person will get motivated and their creative thinking will be used to a maximum. A perfect match stretches the employees' abilities in the best way, because they do not become bored or overwhelmed by work. Making a good match is difficult due to the vast amount of information the management need about the employees abilities and interests. Instead, a simple game of guessing is played, and the most important assignment gets the best employee (Amabile, 1998). Kratzer (2004) proposes that managers should link subgroups in a way that facilitates communication.

The managerial practices that affect creativity and prolonged innovation are six general categories: challenge, freedom, resources, work-group features, supervisory encouragement, and organizational support. These factors can enhance the possibilities of generating innovations that the organization can profit from (Amabile, 1998). New product development is costly and uncertain for companies. Especially radical innovations can make the potential success indefinite and managers need to overcome numerous managerial challenges. Kim & Wilemon (2002) state that managing the *"fuzzy front-end"* is of utmost importance for success. This is explained as the time period between idea generation and implementation. Managers that spend interest and money in this predevelopment phase become more profitable according to the author. Well-defined target market, product specifications, clear product concept, extensive preliminary market, and technical assessment are the activities important to perform stated by Cooper & Kleinschmidt in Kim et al. (2002). The authors suggest two idea-screening processes. First is the decision whether an idea should go any further than just being an idea, second the time to start developing the idea. The time in between, market research is conducted and a strong product concept is developed (Kim et al., 2002).

4.3   Culture

According to Adams et al. (2006) the perceived work environment with their cultural and structural implications affect innovation. At the *CEO Leadership Summit* regarding innovation there was consensus concerning that innovation spring from the corporate culture (Rothfeder, 2006). It is important for the CEOs to communicate that all members of the organization must be involved in the innovation process. Innovation starts from the top in that sense. The larger firms have an innovative advantage in resources and material factors but the small or medium-sized firm have the *behavioural advantage*. They may also perform better concerning different kinds of innovation (Edwards, Delbridge & Munday, 2005). A willingness to accept risky behaviour and tolerate failure affects the employees in a positive way. Learning from failure instead of viewing it as a result of wrong practises should be the main idea in the organization. *Participative safety* is suggested to be supportive to an innovative climate. This includes a non-judgemental attitude, encouraging and characterized by socio-emotional cohesiveness (Adams et al., 2006). Tushman et al. (1997) highlights the difficulties concerning managing culture. Instead formal control is easier to understand, and this will guide behaviour. When giving signals about what is right and wrong employees will adjust. Therefore the formal control has to be aligned with the innovation strategy and support the culture sought for in the organization.

4.3.1 Norms and values

Long-term strategic success comes from behaviour according to Tushman et al. (1997). The behaviour originates from the norms and values formed within the organization. When these values take a life of their own people will be guided and it will create a sense of meaning to the individual. The idea of what is really important is the values represented in the organization. Norms are social expectations considering what is right and appropriate to do and how to act. The norms reflect shared agreements regarding what is significant. This can be dress codes, work behaviours and attitudes.

The group responsible for creating innovation, whether it is the whole company or a business unit, has characteristic's that can breed innovation. These are multidisciplinary qualities, communication and cooperation, dedicated project leader with high qualifications and know-how, team autonomy and a sense of responsibility for the

process (Ernst, 2002). Tushman and O'Reilly (1997) refer to these factors as norms for innovation and change.

4.3.2 Risks

Achieving a climate where innovation can be encouraged demands freedom of the employees. Some rules might need to be bypassed and some procedures might inhibit development of innovation. Risk therefore becomes a part of the organization that wants to pursue innovation since control diminishes. Flexibility needs to be accommodated, slack[7] resources facilitated, tolerant attitude toward conflict and handle disorder for a creative environment (Adams et al., 2006). Rothfeder (2006) emphasises the will of CEOs to accept failure in order to encourage innovation

A manager is quoted in Kim & Wilemon (2002) saying that fear prevents fast development of products and therefore very few of the products are successful. Justifying slow and careful work because of the risk involved will create disadvantages for the organization as a whole. Speed in selection is crucial to get to the market before competitors. A dilemma occurs since there can be a trade off between quality and speed. Competing in the market means quickly developing products that customer wants and then market them well. Stalk (2006) argues that the choice companies have today is to set the pace of innovation otherwise the competitors' will. Hardball competition demands hardball innovation. A market that is predictable and slow will have a low cost of delay, instead the opportunity cost is higher. As opposed to a fast moving market where speed is crucial. Risk of being a slow competitor is high and the organization must work with the balance of speed and quality making every decision important (Kim et al., 2002).

The risk for mistakes is great in a developing phase, which can result in an aversion in trying new ways or develop new products (Kim et al., 2002). Further on may managers be under the impression that they do not want innovations in their functions. Amabile (1998) argues that creativity should be present in all functions. The common opinion about not having a creative accounting function is disclaimed based on the activity based accounting that is a creative solution in a profound way. Managers should not fear creativity and innovations.

---

[7] Slack is an expression used to explain the need for creativity. This is when employees have a feeling of freedom in time and resources. The organization needs stability and routines to accomplish the daily tasks. In the same time they need to develop new ideas to keep their position on the market. To maneuver this, the organization needs s to create room for the employees to think and be creative. (Trott, 2005)
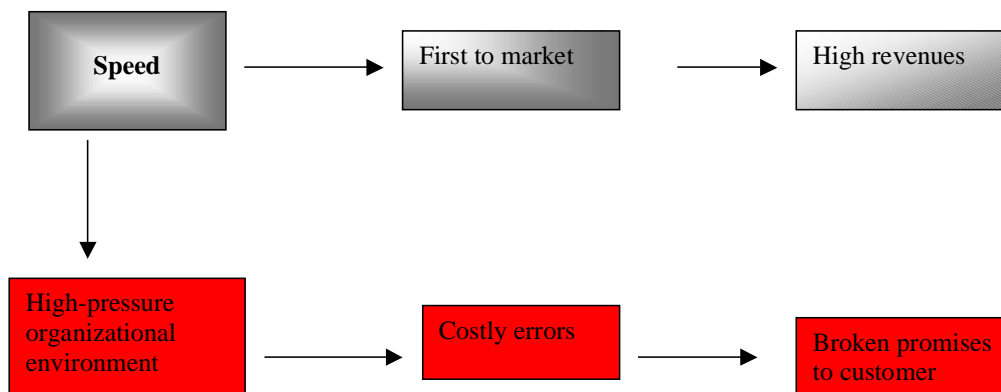
Figure 4. Speed can impact the business in two different directions, successful product and implementation gives first to market and hopefully high revenues. The alternative way is costly mistakes and distrust from customer (Kim et al., 2002) This figure aim to explain how speed can affect the organization in two different directions.

4.3.3 Communication networks

Tidd et al. (2005) declare the importance of communication when it comes to innovations. However, Lipnarck and Stamps present this theory in 1982, where they point out the importance of communication and networks to understand development. Tidd et al. (1997) state that several problems occur in the innovation process because of the misinterpretation of communication.

<div align="center">

"Language is a virus from outer space"

- William S Burroughs[8]

</div>

Communication is the *"nervous system"* that makes an organization stick together (White, 1994). Kratzer (2004) means that since the core product of innovation is knowledge, and since the knowledge only can be transmitted through interaction, the cement of innovation is communication. Small businesses often lack hierarchical structures and have a fast horizontal communication that favours quick response to market changes (Bougrain & Haudeville, 2002).

---

[8] Famous quote by William S. Burroughs 1914-1997. American author, novelist, painter, social critic. www.rooknet.com/beatpage/writers/burroughs.html

In a research done by Kratzer (2004) 11 different companies working within dispersed areas were studied to investigate the importance of communication in order to achieve innovation. The study shows that effective teamwork requires communication between the members one to three times a week. He found that innovative teams tend to communicate even more, which is necessary. However studies has shown there is a threshold for when the communication stops being effective. High levels of communication can lead to a groupthink that stifles originality (Muller, 1999), as well as it can limit the cognitive capacity (Nijstad, 2000). Kratzers study showed that the longer teams stays together, the more likely it is that cliques will form. He means that it is easier for larger teams to counteract this by rotating people. However, smaller companies might have difficulties doing this.

Another important factor for successful communication is to what degree it is centralized, a theory that was presented by Rogers in 1974. Organizational studies shows that centralization of the communication process inhibits the creative performance. According to Fleming et al. (1996) team creativity depends on the acquirement of a wide range of information, and it is crucial that all the members get equal amount of sufficient information. Research shows that centralized communication limits the provision to a number of people and reduces the creative potential of teams.

4.4   Formal organisation

The organizational structure will affect innovations in a number of ways. The encouragement of managers will be an important aspect but the support from the organization with systems and procedures (Amabile, 1998). A decentralised organization becomes somewhat of a prerequisite for organizational innovation (Damanpour, 1991). The hierarchical organization tends to inhibit communication and can also slow the organization down (Tushman et al., 1997). Rothfeder (2006) exemplifies with Siemens Communication how a business can organize around innovation. They have an innovation board that link great ideas to a business plan. The four top executives are present at meetings and all ideas are discussed.

Slack is considered to be organizational factors that influent innovation. Slack in resources tends to be viewed in a negative way by the management. Unused capacity can be a catalyst for innovation since failures can be absorbed and foster a culture that encourages experimentation. A rigid system with a tight structure does not leave any

opportunities for creative work. An organization that can be in two states at the same time can be preferred to achieve innovation. The organization can handle loose and tight control at the same time freedom and control are not exclusive of each other. (Adams et al., 2006)

4.4.1 Strategy

Management needs to take intentional steps regarding innovation goals. The competitive environment is analyzed but without a relation to where and how innovation is going to happen innovations tend to be lost (Adams et al., 2006). Innovation projects must be aligned with the corporate strategy (Kim et al., 2002). Management techniques, new products, technology may all be renewed and in some form innovated. Resources are allocated according to an overall strategy and innovation must be on the organizational agenda to get long-term commitment (Cooper, Edgett & Kleinschmidt, 2004). Power holders within the firm will take course of action but there is also the question of simultaneous decisions in which performance is evaluated from. Other economic standards might be influential deciding on what quest the organization will pursue (Edwards et al., 2005).

The people within the firm do not necessarily need to choose what projects to work on, but they need freedom to choose how to work with the project. Clearly specified strategic goals enhance the employee's creativity, therefore they should also be involved in the process of creating these goals (Amabile, 1998).

Different possibilities and ideas will emerge within the successful organization. *"There is nothing wrong with a sudden brilliant idea"* a manager is quoted in Ideas that Bloom (2006) but what is more important is to make the right decision concerning how many ideas to push and offer to the customer. *"The stop criteria"* is introduced in Rothfeder (2006). An idea not worth pursuing should not get any seed money. This can be even more difficult than understanding that an idea is not all that great its founder would have hoped. An important factor is the evaluation of these ideas in order to find the ones that can give most return on investment.

Adams et al. (2006) discusses portfolio management and thoughtful decisions concerning what projects to put money into optimizes the trade-off between returns and risk. A systematic process can help find what can be a more correct option. Best performers use

explicit formalised tools that they apply for all possible projects belonging to a portfolio (Cooper et al., 2004). It is also argued that organizational capabilities will determine whether a project is successful or not.

A clearly defined product concept is a must to understand development time, market potential, costs and the necessary expertise needed. The decisions based on collected information will help make a good choice and ill-informed project decisions can be avoided. Although this is a process easier said then done, many companies find it difficult and therefore do not even try (Kim et al., 2002).

4.4.2   Rewards

When designing rewards system it is important to acknowledge how rewards shape the organization and affect behaviour. The authors of *Winning through innovation* argues that managers often overestimate the importance of financial rewards, and fail to recognize the immediate reinforcements that trigger the employees in the short- run. According to John Reed, CEO of Citibank, money is not a good motivator, however it is important to keep in mind that few of us would work and feel motivated if we were paid inequitably. (Tushman et al., 1997)

Motivation can be extrinsic or intrinsic according to Amabile (1998) and Tushman et al. (1997), meaning coming from outside or inside. Outside motivation can be rewards or "by a stick". This motivation is stated to be of no significance concerning creativity but it does not necessarily hinder. Money can be viewed as a bribe or a way to control the employee then it would be seen as having a negative impact on innovation. Passion and true interest is intrinsic motivation. When a person feels excitement and feels challenged by their job they will be the most effective but also the most creative. A vision that employees share and support will spark the intrinsic motivation (Amabile, 1998). Tushman et al. (1997) argues that formal rewards are considered to be a right whereas recognition is a gift. This argument concludes that money becomes a formal reward expected but bonuses and ways of further stimulating the employee is most effectively done through intrinsic rewards.

4.4.3. Information systems

Knowledge management creates new opportunities for innovation since the organisation becomes knowledge absorptive. Absorptive capacity is dependent on the firms' ability to

absorb and use new knowledge from external as well as internal sources. Also to understand and commercialize knowledge becomes of importance because when doing so the business can become more successful (Alvesson, 2004). The small or medium-sized enterprise often has large networks, mainly consisting of other small or medium-sized firms as well as institutions and universities. This external environment may affect the business in different ways (Edwards et al., 2005). Through knowledge management systems this information can be used in a more systematic way (Alvesson, 2004). Organizations need to have the ability to identify, attain and exploit external knowledge (Zahra & George 2002). Hull, Coombs & Peltu (2000) argues that knowledge management is an important feature in the innovation process. Tacit knowledge is something competitors have difficulties imitating and it is rare. The knowledge management must include processes that deal with idea generation, knowledge storage and information flows.

4.4.4 Vision and future

A shared, clear and well-structured vision enables innovation. A vision with these characteristics can facilitate innovation (Stalk, 2006). Eneroth & Malm (2001) discuss how visions should be shared outside the organizational borders. Meaningfulness in the vision is important to reach this shared state. Tushman et al. (1997) argue that vision is an aspiration. This is a state to aim for or a goal to fulfil in the future. The norms and values represent present state. These may or may not be aligned with the overall vision. Management must be clear and consistent when creating a vision. If not done in the right way norms and values will develop without guidance and a result can be confusion and increasing politics within the organization.

The high-tech firms have the vision as something more than just a guiding device; it is a filter toward the environment. The organization can focus on their core competencies and to develop them. A strategic identity will develop and the vision will act as a catalyst in this process. Vision can build a bridge between the past and the future in an organization and be a *"memory of the future" "* (Eneroth et al. p. 122, 2000). A dependable relation between the organizations past and its identity must exist in order to become successful (Eneroth et al., 2000).

4.5   External relations

Today's global market is constantly changing and can no longer be served with generically designed products and services. Global trade is not driven by product or market, but by trying to satisfy the need of individual customers. Many organisations view innovation and creativity as an important practice in obtaining competitive advantage (Adams et al, 2006). Innovation has a broader meaning nowadays according to Rothfeder (2006) and almost everything done in the organization can be considered to be innovation. However, for many inventors it is hard to get customers and consumers to accept their products and to market them. While technical abilities are important for the initial part in the innovation process and product development, marketing and knowledge about the market is significant in the launch of the product and during the implementation stage. (Adams et al, 2006)

4.5.1 Clients

The organization that listens and builds on learning from the customer will gain a competitive advantage (Flores, 1993). In 1984 von Hippel declared the importance of collaboration with customers for triggering creativity and innovation. This theory has later been widely recognized, and Adams et al. present the idea in his article in 2006. Collaborating with customers support learning in the organization according to Bougrain et al., 2002. Thomke and von Hippel (2002) have a reasoning concerning how customers can help innovate products. This through a *"customer tool kit"*[9] specially designed for the customer to help develop products and innovations. According to this theory the customer will be useful in order to produce better innovations. A different approach is Christensen's theory (1997). Customers are naturally the livelihood for companies but they can also inhibit innovation according to Christensen's theory of disruptive technologies. Henderson (2006) argues that this is an important scientific finding. The main idea is that profitable clients take a large amount of a business that makes it difficult to allocate new customers with lower margins. Innovation strategies are put aside to serve customers that demand the attention. This creates an opportunity for other companies to make a move on the market.

---

[9] The customer tool kit according to Thomke et al. (2002) includes tools to enable a customer to be part of the innovation process.

"If I listened to what customers want, I would have created a faster horse"

- Henry Ford

According to Flores (1993) company offerings today have to be individualized to meet particular needs and situations. The predevelopment phase is of high importance to successful innovations as noted earlier. Relations with customers and partners as well as other intermediaries give valuable input in this phase (Kim & Wilemon, 2005). Bougrain & Haudeville (2002) argue that scientific and technical knowledge no longer exists within individuals but is scattered among a large group of people. This knowledge is only acquired through interaction in networks. The economic rules must be respected when firms interact. If the assumption that small and medium-sized businesses are the ones most working in networks weak ties with their environment create a potential danger. They must be in close contact with their market and ready to move immediately.

4.5.2 Consumers

Flores et al (2000) means that a common complaint of managers is that the use of market research hinders them from deciding if their innovation will succeed in the market or not. With new ideas, technologies and innovations it is hard to know how the consumer will act.

" Market research carried out around a new product and service concept is notoriously inaccurate…and is of little use in helping a company better target its development efforts around emerging markets"

- Gary Hamel and C.K Prahalad (1994)

Several authors proclaim the importance of marketing research for innovations. Leonard (1997) writes about the importance of understanding a customers needs. Organizations also must take action in how the environment perceive them and make sure that their innovative efforts is really something suitable for their customers.

➢   *Mission of the customers*- It is important to know the mission and standard practices of the client. Crucial information is also what concerns the client have, and how they connect with yours.

➢   *Innovation*- To know the technological history of the client and how this has developed is essential. In addition to this a company should know the current core technologies. What

experiences does your company have in addition to this that can encourage new client offers in the future?

➢ *Production of satisfaction-* It is important to have knowledge of the clients standard practices in the organization such as production, coordination and what new products they are pursuing. How is your company connected to these practices and how will you adopt to them?

➢ *Training of internal practices-* It is important to have knowledge of the customers view on employee training and education. What skills do they need for new offers?

5. | Empiric

In this section we present the material and information from interviews with The Astonishing Tribe. We structure our empirical results in accordance to the model created in chapter four.

5.1 People

TAT has about 70 employees, where 15 of these are designers. Most of the employees are educated civil engineers, but a few are also industrial designers. Two of the employees are located in Gothenburg and four in Korea, the rest are at the office in Malmö. When we ask Ludvig Linge what the most important prerequisite for creation of innovation is, he answers *"people"* without a doubt. Both Ludvig Linge and Hampus Jacobsson stress the importance for the employees to be passionate about the work they are doing. The founders also mention that the reason for not expanding faster is the lack of people on the labour with the right knowledge. Passion and knowledge are so forth two important pre requisites for choosing employees.

5.1.1 Employees

The people working for TAT are quite a homogenous group according to Tina Kaikkonen. Most of them are the same age without children, and as an example of their resemblance, only two out of 70 employees smoke. In addition to this, the employees have quite similar interests, and Tina Kaikkonen continues with enlightening the topics usually discussed in the kitchen- news, movies and music. The behaviour of the employees is also quite similar, which is something that helps when they are to work together according to Tina Kaikkonen. Even thought there are a lot if similarities among the employees, there is also some diversities among the different working groups. According to Hampus Jacobsson there is often problems for the technicians and designers to get along and understand each other. The founder's ability to function as an intermediary is one of TATs competitive advantages.

According to Ludvig Linge the employees are well aware that TAT is a changing organization and since there sometimes is a lack of personnel for projects the employees have to be prepared to give a hand and do different tasks. The employees are also aware

of the importance of innovation and that their work and efforts actually generate money, which is something essential for their future growth according to Ludvig Linge.

5.1.2 Management

During the interviews with persons in a management position the awareness of how employees need to be encouraged has been evident. Ludvig Linge states that management is supportive and encourages creative and innovative thinking in general. According to Fredrik Ademar it is important for the management to make sure that people work with things they like and prefer. This has been a concept in the organization since the start, when the founders in the beginning got to "choose" what title they wanted to have. They empower their employees and through this they do not feel inferior to the founders. Ludvig Linge also stress how important it is that the founders and managers do not consider themselves to "know it all". He mention that the founders often take one step back to give space to be innovative.

Also obvious things are communicated throughout the organization. An example of this is how every employee needs to generate money to the firm. Also highlighted by Fredrik Adamar is how specific interests of the employees can be guiding what project they may work with. This has some limitations since projects start in different times and needs to be filled with available people.

5.2 Culture

To create creativity and innovation the employees are encouraged to think freely and question changes. TAT does not yet have a set-up innovation-lab or likewise, instead they leave it up to every employee to come up with new ideas and present these. There is a prestige less attitude in the organization, which makes the sharing of knowledge something obvious. The founders have taken a step back and made clear from the start that they do not know best.

The playful mentality of the founders is something that is reflected in the entire organization. The employees are supposed to have fun and work with things they really like. The playful attitude is also reflected in the office environment. The Astonishing

Tribe are located in Framfabs[10] previous office, which is a huge apartment taking up the entire building floor in the centre of Malmö. The kitchen is modern and youthful, with two huge tables where the personnel normally drink their Friday beer after work. The interview was located in a conference room named "Miss Ellie". Every room in TAT's office has a name after the characters in Dallas such as Bobby, Sue Ellen and JR.

5.2.1 Norms & Values

TAT also encourages all kinds of innovations, not only for the products but also in the office in general. For example, the employees are always welcome to come up with ideas of a better way to book meeting, doing the dishes and likewise. It is easy to see cultural similarities between The Astonishing Tribe and IT- companies like Framfab, existing during the IT-boom in the late 90s. The flat organizational structure, open communication, playful attitude and businees that is supposed to be fun. Ludvig Linge says that the biggest difference between TAT and FramFab is that TAT is self-funded from the start. They do not live on borrowed money, and make sure that everyone knows that they have to work to make the company survive. During the IT-boom it was easy to loose track when the big money started to roll in, and the playfulness took overhand. According to Ludvig Linge TAT have three pillars to work from in the company. All of these are equally important.

- ➤ Do things that are fun
- ➤ Do the things they are passionate about
- ➤ Do the things that generate money

5.2.2 Risks

Innovations are very important for the survival of TAT according to Hampus Jacobsson. However, the development of new ideas is done with some kind of restrictions. TAT is careful in their work, and according to Ludvig Linge their current customers have the highest priority even thought there are new and different markets to penetrate. For example, TAT had offers from the car industry to make the interface for their displays as well. However, according to Ludvig Linge they do not have employees enough to enter

---

[10] Framfab is a IT- concultancy firm that was founded in 1995. The company was extremely successful during the IT-boom. Due to an over estimated market the company failed to live up to the expectations on the market and the company stocks plummeted.

this market at the moment, and they consider them selves as having a hard time to find new employees with the right qualifications.

Ludvig Linge can detect some risks with the growth of their organization. These are:

➢ Employing the wrong people who are prestigious and lack the right skills.
➢ That the organization becomes too formal and structured.

Ludvig Linge believes that their future growth will have an impact on innovation, which is an important question for the company. He means that the problem is that it takes a lot of time to innovate, and growth means that the employees have less time for creativity and innovations. This is a problem with their expansion. Fredrik Ademar says that they take risk concerning new ideas. Tina Kaikkonen says they take absolutely no risk when hiring personnel.

5.2.3 Communication networks

Everyone is encouraged to be innovative and creative in the organization. There is no innovation lab, instead the communication is flourishing freely and they try to have an open organizational structure. The employees are encouraged to ask anything, to whomever they like in the organization. It is important with knowledge about the changes and to make everyone know what is happening. To be able to be innovative in the future, Ludvig Linge believes they have to work in smaller teams where it is easy for communication to flow.

According to Hampus Jacobsson, one of TATs core competence is to combine design and technique trough communication. He means that technicians and designers often have difficulties understanding each other and their different interests come in conflict. The system TAT has today means that the designers can work within their area of interest, at the same time as the technicians can construct their technical solutions. Also, the founders are key persons since they often function as intermediaries between the two parts. TAT makes it easier for the technicians and designers to work together.

5.3 Formal Organisation

The Astonishing Tribe has a horizontal organizational structure, and the intention is for everyone to take part in the innovation- and creativity process. None of the founders had

previous experience in starting up companies, which meant that they had to learn everything from the start. According to Hampus Jacobsson they made every mistake possible as entrepreneurs. The foundation of the company began with the idea of working with something they desired and enjoyed. The company got its first customers in February 2002, and the founders soon realized that they needed titles to be taken seriously in business situations. According to Hampus Jacobsson this was made through something that mostly seemed liked a lottery.

"All of the founders chose a title and area of concentration that they really enjoyed. No one wanted to be the CEO…"

-Hampus Jacobsson

Until recently this has been working out and the company has been growing. However, a decision was made to hire a CEO from the outside, Charlotta Falvin joined TAT in May 2006. Johan Lenander, who is chairman of the board, stated: "Facing rapid expansion equals facing extensive operational and strategic challenges. We began our search for someone who had operational experience."[11] The choice of a professional CEO enables the founders of doing what they want. Charlotta Falvin is impressed by the work TAT do and says: "Through wise, hard and strategic work, as well with product development as with organization and market, the founders have been able to establish a strong global company position. We need to secure our position and simultaneous maintain and strengthen the economic growth."

Being a fast-growing business with pressure from large clients, create minimum slack. Fredrik Ademar understands the importance of slack resources to create innovation. At the same time he says it is difficult to have slack when customers demand service. The uncertainty of how many commissions they will have from clients makes it even more complicated to create slack. New solutions of assigning two people to just innovate is being discussed at the moment. Fredrik Ademar views innovation as extremely important since they now are seeing the result, from innovation made three years ago.

5.3.1 Strategy

There are new potential markets to enter with the core competences TAT has. However this is something they have to build up slowly because they do not want to loose their

---

[11] http://www.tat.se/news/2006/05/04/charlotta-falvin-new-ceo-for-tat/ (2007-01-23)

expertise or their position as number one in the telecom industry. If they enter new markets they have to employ a lot of new people, and the risk is that they are not qualified enough. This means that their core product will be suffering. To become an innovative organization special plans concerning this area should be thought of. TAT is aware of the need for innovation and continually work with plans on how to become even more innovative. Ludvig Linge states that they need to be five steps ahead of their customers and competitors in order to stay in the forefront of their business area.

5.3.2 Rewards

TAT does not have any creativity prices because they believe this is counterproductive and since they have a collective culture they are afraid that such encouragements would make people hold back their knowledge and ideas instead of sharing it. According to Ludvig Linge TAT is not a company for people who strive for a rising career and plenty of money. The salaries are fair, but they do not pay best in the market. He means that this makes it possible for TAT to attract the right people- the ones that are passionate for technology and design. TAT works a lot with the human being and is trying be aware of the wishes of every single employee. In as high degree as possible they try to let the employees work with what they like, since they believe this is a big motivator and success factor. Ludvig Linge emphasizes the positive effects of having a culture where people enjoy themselves. He also underlines how this stimulates people and how this can be more important than financial rewards.

5.3.3 Information systems

There is no knowledge sharing system implemented in TAT. During the interview with Fredrik Ademar the difficulties with such a system was discussed. The resistance was based on the complications in creating a good system. Fredrik Ademar feared that this would be unpractical to use and therefore not create an advantage for the organization.

5.3.4 Vision

Fredrik Ademar means that an outspoken vision can be hollow and exist without substace. However, he still thinks it is important since it creates a common guideline for the employees. On TATs webpage they state their vision:

"To become a global leader in beautiful, usable, and high-performance user experiences on mobile devices"

The initial business idea was to do something they all enjoyed and the payoffs was just a bonus according to Hampus Jacobsson. The founders describe themselves as an untraditional company and according to Jacobsson they have made all mistakes possible as entrepreneurs. In their work they had three important pillars.

➢ *Operational excellence*- which means that they want to be the best on the market.
➢ *Customer intense*- provide their customers with what they want as fast as possible.
➢ *Innovation intense*- stay up to date with the market and establish new products and services.

According to Fredrik Ademar TATs vision is communicated to the personnel and customers. From the vision goals are extracted and used in the everyday work. Fredrik Ademar continues a description of the vision by saying it is a diffuse tool to use. He also questions the use in the day-to-day business stating that goals are more used and serve as a better guide when making decisions.

5.4 External relations

External relations are important to TAT, especially when it comes to their current customers according to Ola Larsén. However, the company mainly focus on the technological developments and how to improve their products instead of establishing new relations. According to Hampus Jacobsson this is due to the fact that they only have a limited set of customers on the market, which are covered to about 80 percent. Ola Larsén mentions that they have to start to focus on potential clients and markets as well since it is possible for new competitors to enter the market.

5.4.1 Clients

TAT has a close relationship to their clients and Ola Larsén believes it is essential for developing the right products and keeping their position in the market. The contact with the customers is sustained through daily emails and visits. Many designers also work very closely with the clients, and some of them are placed at the customer's production plants on occasion. The close relationship with their customers is also important because it assigns TAT with information about their current competitors as well as their potential competitors, which consist of their clients. However, Fredrik Ademar believes that the customer focus to some extent can

inhibit innovation. TAT want to satisfy their clients, which means that other projects and innovations has to be set aside if a current client have a specific request.

5.5.2 Consumers

TAT does not focus on knowledge about the end consumer. They listen to their clients and leave the consumer knowledge up to their customers instead. Ola Larsén means that they recently developed some ideas in the progress of generating consumer knowledge. This consists of developing a blog where phone users can compare and rate different phones and their functions. They believe that this will increase the awareness of the phone supply and TAT will in the same time get information about consumer preferences and different market trends.

Ola Larsén and Hampus Jacobsson also hope that this will enhance the interest for how the software looks in cell phones, and so forth increase the demand for phones with an appealing user interface. If the demand for cell phones that look good on the outside as well as the inside is increasing, it can directly affect the growth of TAT according to Hampus Jacobsson.

6. | Analysis

The analysis made from the theoretical and empirical perspectives is described in the following chapter. The same structure as in the two previous chapters is used.

6.1 People

When Ludvig Linge is asked what the most important prerequisite for creation of innovation is, he answers *"people"* without hesitation. People are one of the most important factors in the model of Tushman and O´Reilly (1997) and support the reasoning made by Ludvig Linge. Innovation cannot exist without the resources of people. We consider it essential for TAT to show the employees how important their ideas and creativity is for the creation of innovation. Having faith in the employees' ideas through implementation can do this. Risk taking therefore becomes an important factor in maintaining the congruence with the innovation strategy. Kim et al. (2002) means that the two most crucial components when looking for the right people for the organization are knowledge and passion. This is aligned with TATs prerequisites for choosing employees. Both Ludvig Linge and Hampus Jacobsson stress the importance of the employees' passion about the work they are doing. Passion and genuine interest is crucial in order to sustain the atmosphere the founders have built the organization on.

6.1.1 Employees

Ludvig Linge specifies that the only reason for not growing faster is the restricted supply of qualified employees on the labour market. As stated before, without the right people innovation cannot happen. It is obvious that TAT needs people with the right skills and Fredrik Ademar mentions that TAT mainly recruits people on recommendation. Since TAT does not execute marketing efforts towards the consumer market we conclude that the company is relatively unknown in the labour market. This probably means that many qualified persons are unaware of the existence of TAT, and never get the chance to apply for a position. TAT has to make an effort, be willing to take risks and look further than their closest sphere. We believe that just putting a recruiting ad in the magazine will give them several responds. New talents constantly graduate from university and we believe it is crucial for TAT to not underestimate the skills of these young people. There seems to be a major market for TAT to penetrate outside the telecom industry. Since TAT already had offers from the car industry they know they can enter new markets, and the only

thing stopping them is the need for more human resources. We believe TAT has to take this risk now because if they do not act fast, the possibility is that a competitor or new entrant takes their place within these market segments.

Heterogeneity is stated to be good for the innovative business. Different skills, background and demographic of the employees is supposed to enhance the chances for innovation. (Damanpour, 1991; Amabile, 1998) TAT has partially a natural selection of different people: designers and technicians. Hampus Jacobsson argues that this create enough heterogeneity. The people working for TAT are quite a homogenous group according to Tina Kaikkonen. When visiting the workplace a sense of resemblance of the employees occurs, just as Tina Kaikkonen implies. The recruitment process may inhibit the attempt of finding people with different backgrounds. The culture in TAT is shaped by the employees and vice versa, and it probably makes it more appealing to choose applicants who remind of the founders and the other employees. It is important with new influences in generating new innovations, and this can be done through recruiting people with different background, interests and education.

According to Cebon & Newton (1999) the employee's ability to change is important for the creation of innovation. According to Ludvig Linge the employees are well aware that TAT is a changing organization. Since there sometimes is a lack of personnel for some projects, the employees have to be prepared to give a hand if problems occur outside their normal projects. TAT seems to consist of employees that are flexible. This can also make them lose focus. If they had more employees, it would be possible to fulfil the wishes of the customers, and at the same time have employees focusing on developing new ideas or likewise. Amabile (1998) writes about the importance of employees to have a common goal to strive for. He also underlines the significance of employees helping each other and to be informed about the skills of their colleagues. TAT has a clear vision, as well as they have their three pillars to fulfil: do what's fun, do what generates money and do what they are passionate about. This seems to be a good way to create a common understanding of what TAT is working towards and how it is supposed to be done, this creates congruence with their strategy. Even though a stated mission sometimes can seem strained, it has a function of always reminding people of what they are actually doing. Having knowledge about other employees work is one of TATs core competencies according to Hampus Jacobsson since they found a way for designers and engineers to work together.

6.1.2   Management

Hampus Jacobsson declares the importance of innovation, and how future growth of TAT is dependent on new innovations. Ludvig Linge means that the management encourage everyone to be innovative. Hampus Jacobsson states that working with TAT means that you have to like working under restrictions. The management underline the economic restrictions. We argue that this can be viewed as something positive. The understanding of money is an advantage for TAT. Since employees have this knowledge they can adapt to limitations but still be creative within them. The negative aspect of this is that the employees might feel too restricted. It is important that the management allow some slack and dare to take balanced economic risks, something discussed later on in this chapter.

According to Andersson & West (1996) participation from team members and feeling of security in making suggestions is important for how the organization will develop their innovations. The management of TAT state that they work hard to encourage their employees to be innovative. Also a clear objective stating the need for innovation has to be communicated by managers. Our concern is that what is implied is not always congruent with action. This ambiguity would decrease the employees' trust for their managers. Words must be followed by action. Innovation is promoted but how do TAT back it up? Practical support is a prerequisite in order to achieve innovation. Ludvig Linge declare that employees have to find low cost ways to make innovation happen since the financial support is very limited. This can make it difficult to attract the best people if there is a lack of support for good ideas. A larger cooperation often can provide substantial economical resources that can be spent on innovation. According to Edwards et al. (2006) the smaller firm instead have behavioural advantages because the employees more often are participants of the culture to a greater extent than in larger organizations. The management should nurture this behavioural advantage with the use of interaction and open communication. The ability to change is also highly valued in the innovative organization. Eneroth & Malm (2000) argues that the high-tech firm has a better understanding of the need for change. The founders of TAT have witnessed the rise and fall of the IT-boom front row while working within organizations that was involved. The management of TAT therefore adopted a management style that combines "hands on" with a "down to earth" approach. This works well when handling the problem of fast growth but there is also a need to change when the market demands it. TAT has recently

hired a new CEO and we believe this is a step towards finding a management style that will evolve and that is better adapted to the market.

6.2   Culture

According to Adams et al. (2006) the perceived work environment, with its cultural and structural implications, affect innovation. According to Ludvig Linge TAT always inform new employees that TAT keeps an open and prestige less mentality in the organization. We consider it essential for TAT to keep their playful attitude. We believe that it is rewarding to create a work atmosphere that is considered fun, and if people work with colleges they like, it appears to be easier to generate new ideas. However, there is a risk with the friendly attitude. The work relation can easily become a friend relation. It is difficult to criticise a friend, and it is more hurtful to take criticism from a friend. We consider it essential for management and project leaders to monitor this during the continuing expansion, to prevent misunderstandings and dissatisfaction.

Kratzer (2004) writes about the risk with formation of groups within an organization. According to Hampus Jacobsson there are group formations in the organization. Employees sharing the same project or tasks create subgroups and occasionally there is some "bullshit" between the different groups and departments. Conflicts and annoyance between employees and groups can be negative, but as stated before, heterogeneity can also create new solutions. During interviews different views on conflicts have occurred. Tina Kaikkonen expresses the homogeneity within TAT and says conflicts are solved immediately, opposed to Hampus Jacobsson who stresses the differences between people. The difference in answers is most likely depending on where in the organization one works. Tina Kaikkonen works with external communication and administration whereas Hampus is one of the co-founders more active in the interaction between technicians and designers. Therefore is Hampus Jacobsson deeply involved in the daily internal life and relations of the company.

Subgroups within the organization can create a constraint in the sharing of knowledge since it can form competition between the teams instead of collaboration and teamwork. TAT seems to have a good way of working with this. As the company expands it will be harder to keep this under control. To counteract conflicts and lack of communication Kratzer (2004) proposes rotation of people, or that managers of smaller companies should link subgroups in a way that facilitates communication. TAT is a company where

the employees have very specific skills and knowledge, so the rotation of people might not always work. However, we consider some kind of rotation and integration, as in linking subgroups, to be essential for stimulating innovation and growth. Creating subgroups with representatives from each department that continuously meet and discuss the work progress of innovation. Also to brainstorm new ideas in unconventional groups is a way of sustaining communication and sharing of knowledge, through this a common culture is sustained. We believe it is crucial to get inspiration from other people and from other fields of studies to improve technology. This is aligned with the proposal of Tidd et al. (1997) to improve communication. The authors suggest cross-functional teams, briefing between the different departments as well as review sessions. These are suggestions that we find adoptable for TAT in their expansion process.

6.2.1 Norms and values

Tushman et al. (1997) describes values as the guiding lines that an organization find important. In TAT they have three pillars in their work, these are; to do the things that are fun, that they are passionate about and the things that generate money. Fredrik Ademar believes they follow these guidelines quite well and the management really tries to consider the employees wishes when they assign them to projects. However as they expand it appears impossible for the management to hand out tasks that every employees is most pleased with. The number of staff and clients will increase and there will be more people doing the same kind of work, with the same preferences and passions. Some projects probably are more fun than others, but in the long term everyone cannot work with the same projects. There is also a problem in the duration of projects. When a project is finished a new will start and the most suitable persons may be tied up in another project with a different end date. The intention of assigning project to the most suitable and most interested employee is very good. In the every day work of a company it is more complicated and what can be achieved is a long-term balance between time and effort.

Part of TATs values is that every employee shall know the importance of money and productivity. The management are clear about that the individual employee actually generates money. This may seem trivial, but as we see this is something that is easily forgotten when you are part of a growing organization. As Ludvig Linge state, the difference between TAT and the companies operating during the IT-boom is that TAT chose not to use investors and venture capital. When investors fund a company and large

amount of money is generated it is easy to lose focus. We believe it is important for the management to continue emphasizing the importance of money and productivity. This is a way of getting everyone involved and creating the feeling of being essential and valuable. Important to remember is that innovation will cost money. If innovation also is a significant norm there can be incongruence in what is most valuable. Top management has to have a clear strategy for how norms and values interact and support the organization.

6.2.2 Risks

A common theme concerning innovation is the nerve to take risks (Adams et al., 2006; Stalk, 2006). Ludvig Linge states that scepticism is a part of how the organization evaluates ideas. They cannot try all ideas but must make a judgement whether it is a good and long-term project because of lack of capital. During the IT-boom many companies got a lot of money and they only needed a way to spend them. The solutions and innovations were not evaluated properly before they were implemented and therefore not always successful. TAT focuses on innovations in a different way. In the organization innovation is considered as something that can help make the dishwasher more effective or create a new product. Even though the management cannot move on every idea they try to encourage their employees to generate ideas. Adams et al. (2006) argues that risky behaviour is needed. TAT has strong control and feels the pressure from their current customers. We question if employees truly feel motivated to produce new ideas because of these limitations. Intuitively we believe employees would want to see that innovations from co-workers have been implemented in order to really trust the words from management. Just saying, "Innovate!" might not stimulate people to do so. With this in mind we question if TAT take risks aligned with their general strategy. The respondents claim that innovation is a lead word for the company, but this might not infact be the case. As they have grown we understand that they have become more careful in their choices and that they are aversive in taking risks. Management in TAT have an understanding of the importance of innovation but it is not as clear how innovation is correlated to risk. The incongruence with an innovative strategy and risk is evident. Innovation demands risk taking.

Rothfeder (2006) emphasises the will of CEOs to accept failure in order to encourage innovation. TAT has always been successful, which we believe can make them even more afraid of failures than a regular organization striving for survival in the initial years. Also is

a certain amount of slack needed to have a successful innovative business. One of the major difficulties in the transition to become larger business is the greater need for control in order to manage the organization. TAT is innovative and they dare to take risks according to Fredrik Ademar. TAT is careful with risk taking, and with limited resources they have to think before implementing new ideas. According to Tina Kaikkonnen TAT are also afraid of employing the wrong people and she states that the company take very few risks regarding employment. Despite of Fredrik Ademar's statement that TAT dare to take risk the overall impression is an aversion to risks within TAT.

6.2.3 Communication Networks

Hampus Jacobsson states that one of major competitive advantages of TAT is their way to communicate efficiently. The technicians and designers in TAT speak "different languages" and have very different skills (Hampus Jacobsson). This means that they have to share their knowledge to make the other part informed. As Hampus Jacobsson states, this willingness to share seems to be another important factor for their success and something they should continue to nourish. Ludvig Linge means that the interaction difficulties probably is one of the main reasons why their clients do not set up a division of their own performing the same work as TAT. That all information is easily accessed seems to be one of the core competencies for TAT when both keeping their clients and to generate new ones.

Kratzer (2004) means that since the core product of innovation is knowledge and since the knowledge only can be transmitted through interaction, the cement of innovation is communication. The employees in TAT are encouraged to ask or inform anyone if they have a question or idea. The horizontal organizational structure makes this easier according to Ludvig Linge for everyone to take part in the sharing of knowledge and ideas. This seems like a good foundation for knowledge, as aligned with the literature. TAT has to be aware of the difficulties in preserving this kind of communication flows while expanding. As stated before, one way of solving this can be through rotation of people or smaller groups with representatives from each division, that meet for discussion and brainstorming. Muller (1999) writes about the problem with too much communication, which according to him can restraint creative thinking and make the members of a group think in the same way. This is discussed earlier under the headline *Culture.*

6.3 Formal organization

The organizational structure surrounding employees must be supportive of innovations. The organization that overly emphasizes effectiveness diminishes the possibilities of innovations. Some slack is necessary in order to have a successful innovative business. Because of pressure from customers' the founders of TAT cannot find the time and resources to create slack. We believe there is a long-term risk setting the supporting factors of innovation aside. The choice of bringing an experienced CEO to the company in this phase implicates that the former management felt unable to balance different important factors while growing and changing the formal structure. During this next phase the new CEO will hopefully be aware of the factors supporting the innovative climate.

Keeping a dialogue with employees and discuss ways of keeping a formal structure that is supportive of the every day work as well as innovations is of utmost importance. During interviews the people in TAT has proven to be informed about strategic questions and we have a sense they continually question their direction. One of the major difficulties in the transition to become a larger firm is the greater need for formal control to manage the organization. TAT must be aware of the differences in handling a small firm versus a large.

6.3.1 Strategy

Authors agree concerning the importance of a clear innovation strategy (Adams et al, 2006; Kim et al., 2002). This is the base of creating congruence with other organizational building blocks. The innovation strategy should be aligned through the whole organization. When discussing innovation with members of TAT it becomes evident that innovation is, and always have been, an important factor. Despite this, there is a feeling that innovation is put aside to serve current customers. This is referred to the innovation dilemma discussed by Christensen (1997). Resources are supposed to be allocated to innovation in order to shape the future (Cooper et al., 2004). Fredrik Ademar concluded that innovations made three years ago are creating profits now. Therefore it is apparent that the organization understands the need of innovations. TAT will have to make clear economic statements concerning innovation in order to support it within the business.

Our sense is that being successful in the present meeting customers' need of today should be balanced with the less controlled activities of finding tomorrows solutions.

6.3.2 Rewards

TAT does not have any creativity prices or likewise. Ludvig Linge means that if the work and creation of ideas is encouraged by rewards there is a risk for internal competitions, which can be counterproductive. TAT's thoughts concerning rewards is aligned with John Reeds, CEO of Citibank, opinion where he states that money is not a good motivator. However he also implies that it is important to keep in mind that few of us would work and feel motivated if we were paid inequitably (Tushman et al., 1997). People that are looking for a shooting career do not come to TAT according to Ludvig Linge. TAT pay fair but do not have the highest salaries on the market, which hopefully attract the employees that really enjoy the tasks and that have a passion for what they do. However, when TAT is expanding there may be a risk that TAT has to increase the salaries to attract the best people. We believe that all people need motivators and since several authors underline monetary rewards to be a good solution our suggestion is for the management to focus on intrinsic rewards. TAT is providing a work climate that young talented people find stimulating. If TAT can find a way of stimulating their employees with current systems that could be the way most aligned with strategy. TAT want to attract people how is stimulated by doing what they like, not money. If this is the strategy it has congruence with strategy, people and communication. All of these factors benefit from having intrinsic rewards and not formal since a different approach would deviate from the core values of TAT.

6.3.2 Information systems

Hull, Coombs & Peltu (2000) argues that knowledge management is an important feature in the innovation process. Tacit knowledge is something competitors have difficulties imitating and it is rare. TAT seems to be well aware of the importance of their employees and their individual knowledge. As stated before people are one of the most important factors for innovation according to Ludvig Linge and we believe it is essential for TAT to continue nurture the knowledge within the organization. According to Hampus Jacobsson the management has taken a step back as front figures when the organization has grown. Hampus Jacobsson argues means that this way of managing knowledge has generated several unexpected ideas and thoughts that later have been implemented. There is no information system implemented in TAT. Fredrik Ademar stated that information and knowledge sharing systems are difficult to implement and make useful. Several

authors including Alvesson, 2004 and Hull et al., 2000, emphasizes the importance of a knowledge sharing systems and we believe it is valuable in a growing business. A small business only employee a few people and communication can flow easily. When the business grows and engages a large number of employees it becomes more difficult to find the person with the right information. The knowledge sharing system enables the access to correct information. When speculating why no system is implemented in TAT, time and resources are likely factors. It would be time and resource consuming building and implementing such a system. The danger in not preparing for future growth is the risk in getting caught in something that cannot be controlled. By implementing a system in early stages of growth TAT creates the opportunity to build a knowledge base and create a system that works well.

6.3.4 Vision and future

Vision is stated to be of outmost important in an organization (Eneroth et al. 2004). In the discussion with CTO, Fredrik Ademar, he is stating that their vision is communicated internally and externally. He questions the importance of vision in the everyday decision-making. Instead he talks about the significance of the goals that are extracted from the vision. We tried to push the importance of a vision and that everyone in the organization should share the same vision. The response was scepticism. Both Ludvig Linge and Fredrik Ademar talked about "being astonishing" and that seemed to express the vision of TAT compared to the actual vision. Astonishing is something that employees and management strive for in their work. We believe this slogan express a core value of TAT and serves as motivation and in some ways also connect people in the business. According to Eneroth et al. (2000) in order for an organization to be successful there must be a relationship between the organizations past and its present identity. We believe that the elated spirit is essential for the creation of innovation and also that it function as a trigger for the employees to do their best. Capturing also this spirit in the vision would bridge the past and the present identity.

6.4 External relations

External relations are very important to TAT according to Ola Larsén. They have a close relationship with their clients (Hampus Jakobsson) and Ludvig Linge means that well established relationships is essential for their business. TAT focus a lot on their current clients instead of potential customers. According to Hampus Jacobsson this is due to the fact that they only have a limited market. We consider it essential for TAT to

acknowledge new opportunities on the market and establish relations with potential future customers.

6.4.1 Clients

The organization that listens and builds on learning from the customer will gain a competitive advantage (Flores, 1993). Even if there are a lot of benefits in working close with customers, we believe that this can inhibit innovation to some degree. Maybe the demands from the customers keeps TAT focused in one direction, which mainly involves satisfying the present customer. According to Ludvig Linge, TAT had offers from the car industry to create interfaces for the displays in cars, which they have not accepted. This has to do with their customer relations, and the fact that they want to satisfy their customers before entering new markets. This also has to do with the fact that it is hard to find employees with the right qualifications, which according to Ludvig Linge this is the only reason for not expanding faster.

According to Ludvig Linge there is a problem with the close collaborations. While working close with their customers, they get inspiration from the designers working at i.e. SonyEricsson. Inspiration is brought back to TAT for discussion and further development. The risk with this is that they might implement an idea from one customer, develop it and sell it to another customer. This can put TAT in a precarious situation, and for them it is important to distinguish between their own ideas and inspiration, versus their customers' ideas. At the same time all consultancy business have the same situation. The customers create the new input in which the business can develop and generate new solutions. We suggest monthly meetings every month to discussing the input and possible innovations, building on the information collected from clients, develop it and make it better. Staying five steps ahead of competition conveys using all the valuable information possible. Through interaction with colleagues and brainstorming around new ideas TAT will innovate more effectively.

6.4.2 Consumers

TAT does not focus on knowledge concerning the end consumer. They listen to their clients and leave the consumer knowledge to their customers instead (Ola Larsén). Having knowledge about the consumer can prevent failures, as well as market research can generate new innovations. Leonard (1997) writes about the importance of

understanding the customers' needs. We believe that it is essential for TAT to know what the end consumer want and their preferences. Hampus Jacobsson believes that the cell phones will become more specialized towards a specific target market. These changes means that TAT needs to be updated on what their customers actually wants and make specific software for children, adults, musicians, students an so forth.

By having a famous name known by the end consumers as well as an increased interest for the inside design in cell phones, TAT can "pull" the consumers through the purchase chain and create a demand for cell phones with the specific interface and menu systems of TAT. If the demand for cell phones that have nice design on the outside as well as attractive user interface is increasing, it can directly affect the growth of TAT according to Hampus Jacobsson. An alternative for TAT is to use something similar to *Intel Inside*. Their logo can be seen on every computer using their software, as well as the fact that the user gets exposed to their logo every time they switch on the computer. We believe TAT can motivate their customers so they make the name appear when turning on the cell phone, as well as they can have a small tag somewhere on the outside of the phones. This will make their customers aware of their existence. One danger in using a noticeable brand is the liability. TAT will have more responsibility with a risk of lawsuits especially in the U.S according to Fredrik Ademar. Being a design and not an actual program used creates fewer incentives for the mobile producer to use the name of TAT. Fredrik Ademar explains how the spelling program T9[12] has succeeded in pulling customers through the purchasing process by being something customers demand. He does not believe TAT would be able to accomplish this since they are a design function. We understand that the battle of achieving the recognition in the end consumer is a difficult path but if doing so the power of TAT will increase. The end consumer can affect the producers of cell phones to a great extent and the bargaining power of TAT will therefore increase when the demand enlarges. They have never made a market research, or had any forum for consumers. We consider it important not to underestimate the knowledge and ideas of the consumers, and we believe this is a valuable forum for new innovational ideas. Not using all available information is incongruent with an innovation strategy. Innovation has absorptive capacity prerequisite and the information from consumer will create a nuanced picture compared to only receiving the clients view.

---

[12] T9 stands for Text on 9 keys. It is a predictive text technology for mobile phones. The technology is developed by Tegic Communications.

According to Adams et al. (2002) technical abilities are important in the initial part of the innovation process, while marketing is of great importance in the launch. Balachandra (1995) argue that companies tend to describe this as a marketing process requiring "big bucks" and much organizational commitment, which is aligned with TATs opinion. Marketing is often expensive, however one must not view it as a one-time cost but as an investment. TAT has a pragmatic view of marketing, and up until the autumn of 2006 they have not had one person responsible for marketing strategy. Realizing the need for marketing, and not only the product aspects, indicates that TAT is entering a new phase.

Figure 5. Summary of chapter 6. Following summary aim to highlight important aspects of the chapter and sections discussed in the analysis and then these factors are compared to the innovation strategy of TAT. Through this the congruence of building blocks compared to innovation strategy become visible

Chapter:	Key factors:	Congruent with innovation strategy?

PEOPLE	Passion and knowledge	Yes
Employees	Lack of employees Homogenous	No, this demands risk taking and employing outside current sphere.
Management	Economic restrictions Promote innovation Change	No, but understandable. No, need to push behavioural advantages. No, but new CEO implies a new trend.
CULTURE	Friendly atmosphere Subgroups Diversity	Yes Yes, but to further support innovation create unorthodox working groups. No
Norms and values	Pillars: fun, passion and money Assigning projects	Yes Yes/No, not overly prioritized.
Risks	Lack of risk taking Lack of risk in employment process	No No
Communication networks	Easy access to information	Yes, but will become more difficult when growing.
FORMAL ORGANIZATION	Structure supporting innovation Slack	Yes, but can improved by taking more risks No
Strategy	Clear innovation strategy	Yes, but is put aside because of focus on current customers
Rewards	Encouraging innovation through rewards	No, believes it is counterproductive and work on a stimulating climate
Information systems	Knowledge management	No, there is no implemented information system, important during growth
Vision and future	Stated vision	Yes/No, being astonishing which also is part of the core value and not represented in vision.
EXTERNAL RELATIONS	Close relationships	Yes
Clients	Listen to clients	Yes, but can lead to too much influence and limit innovation.
Consumers	Knowledge about the end consumer	No

7. | Results

When the six founders of TAT started their business pleasure and doing what was fun pushed them. Since then they have had an enormous growth of 1435% the past four years. Their success originated from congruence between formal organization, strategy, people and culture. The growth forced the company to change into a more formal organization. This also changed the fit between the building blocks. No performance gaps were found during the discussion with the founders and employees of TAT. Instead we have focused on finding what factors that supports the innovative capacity in fast growing businesses. Congruence is identified as the number one most influential factor. Our result will therefore include the areas where we identify incongruence.

The willingness to take risks is a common theme in innovation literature. This is something we intuitively connect to entrepreneurs as well. The empirical findings in TAT implicates that there is an aversion to risk. TAT explicitly express innovation to be an important part of their strategy. To achieve congruence this must be reflected in all building blocks. *People* have to be innovative, in order to do so they need time, resources and trust. At the moment there is not enough employees to create this innovative space. Management must take risk in hiring new employees otherwise the growth will slow down and employees might feel hindered when they are not given enough freedom. We feel that TAT has a strong *culture* providing norms and values that employees appreciate. A culture that is based on innovation, new ideas and a sense of being astonishing will become worthless if not stimulated and proven. If innovations are set aside their culture will become incongruent with their strategy and other building blocks, and through this loose its value. A changing *formal organization* includes risk taking when changing the structure. Incremental changes are not enough when environments change and a radical change demands brave leaders. The same goes for *external relations* since entering new markets will entail risks, the success is not granted. If TAT tries to create relations with the end consumers they will most likely attain new and valuable information, although the price and effort is unknown. To conclude, the aversion of risks create incongruence between strategy and all building blocks. The reason of being careful and avoid risks can be traced back in the history of the founders. They witnessed the IT-boom front row and

saw the result of taking large risks. Many of the companies did not survive and a long-term growth was eliminated.

Since this is a single case we realize the limitations of our results. The study is a critical case in the context of hi-tech firms started post the IT-boom. Likely are that other firms with the same background share this aversion to risks. Other gazelle companies that go from being a small company were friendship and fun is prioritized may experience similar problems that TAT have encountered. The significance of a commercial focus on the firm is essential to keep growing. TAT has proven to understand the importance of professionalism when hiring a president with experience from other companies. This is a lesson that growing businesses can learn from. Also, an understanding that business will be ever changing becomes important. TAT prove to be aware of growth but through careful reassessments. Although we support risk taking the key is balance between this and thoughtful decisions. In general, innovations in all businesses include the element of uncertainty but not stupidity.

If we were to give recommendations to TAT it would be to continually check the congruence between building blocks and to dare to take risks. We also believe it is essential for TAT to acknowledge their own worth. They cover 80% of the market and we believe this is a number sufficient enough to put pressure on their customers. We believe that the requests from the customers can inhibit innovation. Not just focusing on pleasing their current customers can give them the ability to enter new markets as well. Our suggestion is for TAT to look outside their current sphere for additional employees and with the use of them take their user interfaces to other markets such as the car- and television industry. The current focus on marketing proves that TAT is willing to continue growing. The new challenge is to prove who really is astonishing.

7.1 Future research

During the process of this research we have found a couple of areas that would be interesting to research further in the future. For our thesis we modified Tushman and O´Reillys model to better suit the theories presented by other authors and the information provided by TAT. With other resources in time and information it would have been interesting to entirely use their model as an analyzing tool. Using the model by Tushman and O´Reilly entails a purpose focusing more on the interaction between the different building blocks and how this relation and congruence affect innovation. In such a study would information concerning critical tasks and what implications equivalence with this result in. Deeper understanding of TAT and their innovative processes could be found through this.

The desire to measure innovation has appeared several times during this research. We would find it interesting to create a similar study using a quantitative method with well-developed measuring tools. Looking into how and when the innovations of TAT developed. What affected the decision to develop the product further and how was that process achieved? For that kind of study it could be useful to complete research among the employees, and examine how the innovation process works in reality. This would also create understanding in what environmental factors support innovation.

A case study with multiple companies and measuring their innovative capacity would also be of interest to check whether the reliability of this study is high. Does companies post the IT-boom really avert risks? Are the prone to try new market segments and products also after success and growth? A comparative study is better to generalize from and would provide differences not shown by this case study.

Bibliography

A

Adams, R. Bessant, J. & Phelps, R. (2006) *Innovation management measurement: a review.* International Journal of Management reviews, vol. 8, issue 1, pp. 21-47

Ahrens, T. (2005) *Småföretag ska inte satsa på FoU".* Dagens Industri, 21 sep. 2005

Ahrens, T. and Bjorkman, B. (2000) *Rebelledaren- Ledaregenskaper för tillväxt.* Liber Ekonomi

Alvesson, M. (2004) *Knowledge Work and Knowledge Intensive Firms,* Oxford University Press Inc. New York

Amabile, T.M. (1998) *How to kill creativity.* Harvard Business Review, September- October, 77-87

Anderson, N. & West, M.A. (1996) *The team climate inventory: development of the TCI and its application in teambuilding for innovativeness.* European Journal of Work and Organizational Psychology, vol. 5, 53-66

B

Brady, D. (2006) *Ideas that bloom.* Harvard Business Review. Smallbiz, Spring.

Bougrain, F. & Haudeville, B. (2002) *Innovation, collaboration and SMEs internal research capacities.* Elsiever Research Policy, vol. 31, 735-747

C

Cebon, P. & Newton, P. (1999) *Innovation in firms: towards a framework for indicator development.* Melbourne Business School Working Paper 99-9

Chakravorti, B. (2004) *The new rules for bringing innovations to market.* Harvard Business Review

Christensen, C. (1997) *The innovator's dilemma: when new technologies cause great firms to fail.* Harvard Business School Press, Boston, MA.

Cooper, R.G., Edgett, S.J. & Kleinschmidt E.J. (2004) *Benchmarking best NPD practices.* Research- Technology Management, vol. 47, 50-59

Crainer, S. (2005) "Strategigurun Gary Hamel: *"Innovation driver välfärdsskapandet"* Management Magazine, Vol. 1

D
Damanpour, F. (1991) *Organizational innovation: a meta-analysis of effects of determinants and moderators.* Academy of Management Journal, vol. 21, 193-210

E
Edwards, T., Delbridge, R., & Munday, M. (2005) *Understanding innovation in small and medium-sized enterprises: a process manifest.* Elsievier Tehnovation, vol. 25, 1119-1127

Ekstedt, E. and Jönsson, G. (2001) *Att leda platta organisationer- utan att själv bli tillplattad.* Norstedts Juridik AB

Elmbrant, B. (2005) *Dansen kring guldkalven.* Atlas förlag

Eneroth, K. & Malm, A. (2000) *Strategic identity – Visions as catalysts for competence dynamics.* Advances in Applied Business Strategy, JAI Press, vol. 6A

Ernst, H. (2002) *Success factors of the new product development: a review of the empirical literature.* International Journal of management reviews, vol. 4, 1-40

Fleming, Q.W and Koppelman J.M. (1996) *Integraded project innovation teams: Another fad, or a permanent change.* International Journal of Project Management.

G
(Grant, R. M., 2004) *Contemporary Strategy Analysis.* Blackwell Publishing

H

Hamel, Gary and C.K. Prahalad (1994), *Competing for the Future*. Harvard Business School Press

Holme M. & Solvang, B. *(1997) Forskningsmetodik, Om kvalitativa och kvantitativa metoder*. Studentlitteratur

Hull, R., Coombs, R. & Peltu, M. (2000) *Knowledge management practices for innovation: an audit tool for improvement*. International Journal of Technology Management, vol. 20, 633-656

K

Kelm, K.M., Narayanan, V.K. and Pinches, G.E. (1995) *Shareholder value creation during research- and- development innovation and commercialization stages*. Academy of Management journal, 38.

Kim, J. & Wilemon, D., (2002) *Strategic issues in managing innovation's fuzzy front-end*. European Journal of Innovation Management, vol. 5, 27-39

Kinnear, T.C., Taylor, J.R., (1991) *Marketing Research, An Approach*.
4th Edition. McGraw Hill, New York.

Kratzer, R., Th. A. J. Leenders & Jo M. L. van Engelen (2004) *Stimulating the Potential: Creative Performance and Communication in Innovation Teams*

Krook, C. & Rasetorp, M. (2001) *Tillit I en turbulent värld*. Magisteruppsats vid Lunds Universitet, Företagsekonomiskainstitutionen

J

Jacobsen, D.I. (2002) *Vad, hur och varför? Om metodval I företagsekonomi och andra samhällsvetenskapliga ämnen*. Lund: Studentlitteratur

L

Leonard, D. & Rayport, F (1997) *Spark Innovation Through Emphatic Design*. Harvard Business Review

Lipnarck, J. & Stamps, J. (1982) *Networking, the first report and Directory.* Doubleday and Co.

Lundahl, & Skärvad, P-H. (1999) *Utredningsmetodik för samhällsvetare och ekonomer.* Studentlitteratur

M

Man, J. (2001) *Creating Innovation*, Work study, vol. 50:6 pp. 229-233, MCB University Press

Martin, Michael J.C. (1994) "*Managing Innovation and Entrepreneurship in Technology Based Firm.* John Wiley & Sons, INC. New York

Mason (2000)

Merriam Sharan B. (1994) *Fallstudien som forskningsmetod*, studentlitteratur

Mintzberg, H. (1983) Structure in fives: Designing effective organisations. Prentice Hall, New Jersey

Muller, A.C. (1999) *Team based conceptualization of new products.* PhD Groningen

N

Nijstad, B.A. (2000) *How the group affects the mind.* Thesis Publishers, Amsterdam

P

Packendorff, J. (1993) Projektorganisation och projektorganisering- Projektet som en plan och temporär organisation. Licentiatuppsats vid Umeå Universitet.

Patel, R. & Davidsson, B. *(1994) Forskningsmetodikens grunder.* Oslo Universitetsförlagen

Peruvemba, R.S. & Rosenblatt M. (2003) J *Managing demand to reduce production costs.* IIE Transactions vol. 35, issue 8, 749-762

R

Rothfeder, J. (2006) *Mysteries of Innovation.* Cheif Executive, January/February, 215, pg. 42

S

Stalk Jr., G. (2006) *Hardball Innovation.* Research technology Management. January-February.

T

Thomke, S. & von Hippel, E. (2002) *Customers as Innovators – A New Way to Create Value.* Harvard Business Review, April.

Tidd, J., Bessant, J. and Pavitt, K. (2005) *Managing Innovations, Integrating Technological market and organizational change.* John Wiley & Sons, INC. New York

Trott, P. (2005) *Innovations Management and New Product Development*(2005). Prentice Hall. Third edition

Tushman, M. & O'Reilly III, C. (1997) *Winning through Innovation.* Harvard Business School Press

V/W

Verhaege, A. and Kfir (2002) *Managing innovation in a knowledge intensive technology organization.* R&D Management, 32.

Von Hippel, E. (1986) *Lead users: A source of novel product concepts.* Management Science, 32.

Wetterberg, G. (2004) *"Uppfinningarna är tillväxtens moder"* Svenska Dagbladet, 18 feb. 2004

White, H.C. (1994) *Identity and control; A structural theory of social interaction.* Princeton University Press. Princeton NJ.

Y

Yin, Robert K. (2002) *Case study research*, SAGE Publications

Z

Zahra, S.A. & George, G. (2002) *Absorptive capacity: a review, re-conceptualization and extension.* Academy of Management review, vol. 27, 185

Websites:

Dagens Nyheter, http://www.dn.se/DNet/jsp/polopoly.jsp?a=408034

Deloitte, http://www.deloitte.com/dtt/section_node/0%2C1042%2Csid%2525 3D22635%2C00.html

Procter & Gamble, http://www.pg.com/science/index.jhtml

Sydsvenskan, http://sydsvenskan.se/ekonomi/article96098.ece

The Astonishing Tribe, www.tat.se

Uppsök, http://uppsok.libris.kb.se/sru/uppsok

William S. Burroughs www.rooknet.com/beatpage/writers/burroughs.html

Interviews:

Hampus Jacobsson, Co-founder and Vice President for Business Development. Interview took place in TATs office in Malmo October 4th, 2006
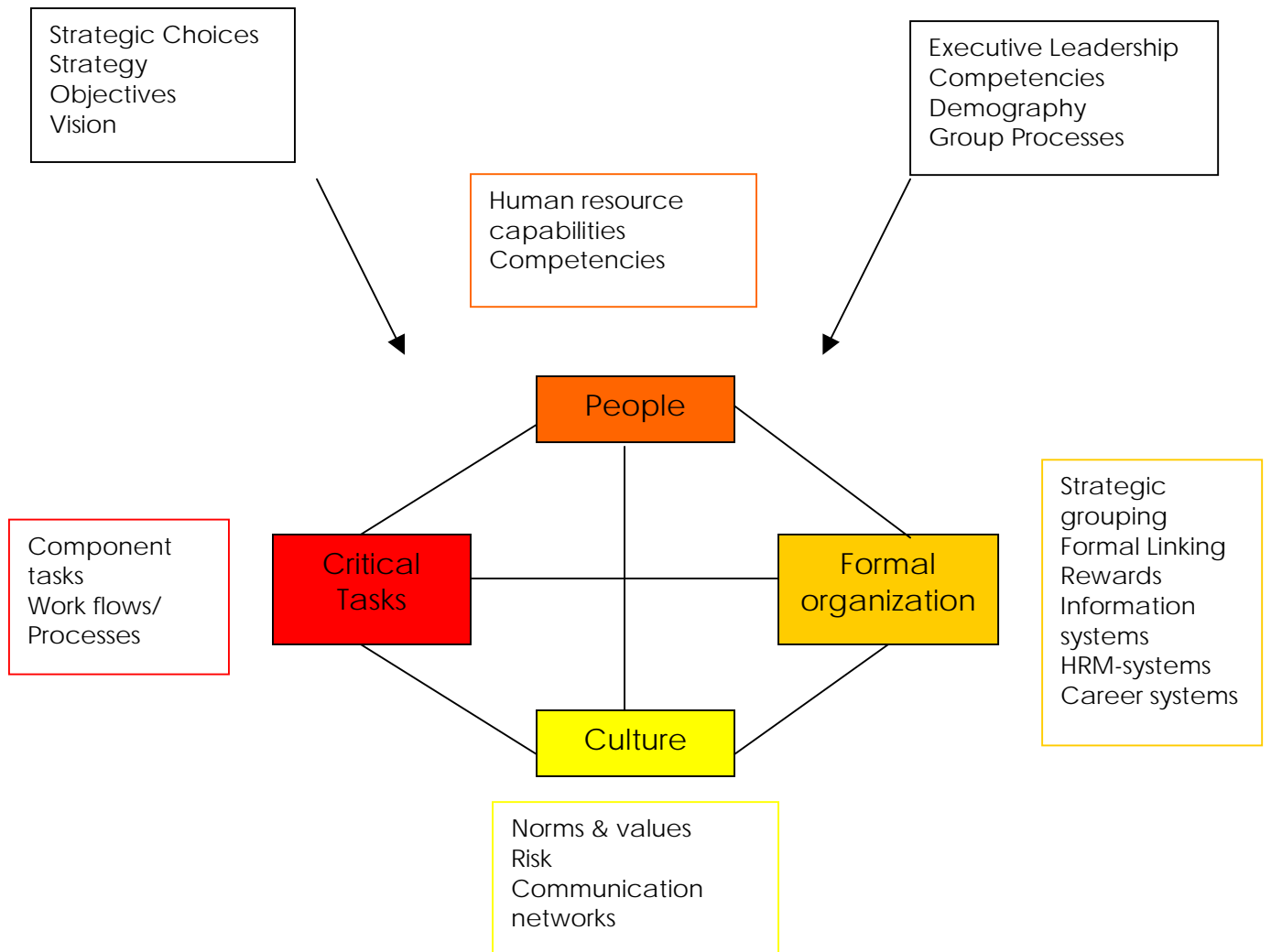
Ola Larsén, Vice President of Marketing. Interview took place in TATs office in Malmo, October 4th

Ludvig Linge, Co-founder and prior CEO Interview took place in TATs office in Malmo, November 29th

Fredrik Adamar, Chief Technology Officer, Interview took place in TATs office in Malmo, December 14th

Tina Kaikkonen, Office Manager, Interview took place in TATs office in Malmo, December 14th

APPENDIX I

Strategic Choices
Strategy
Objectives
Vision

Executive Leadership
Competencies
Demography
Group Processes

Human resource
capabilities
Competencies

People

Component
tasks
Work flows/
Processes

**Critical
Tasks**

**Formal
organization**

Strategic
grouping
Formal Linking
Rewards
Information
systems
HRM-systems
Career systems

Culture

Norms & values
Risk
Communication
networks

APPENDIX II

Interview one:

3   What is innovation according to you?

4   Why is innovation important to you?

5   Does everyone in the organization contribute to innovation?

6   Does TAT generally have a goal of expansion and growth?

7   What generates innovations?

8   Is it more important to develop totally new products or improve old ones?

9   TAT is growing fast at the moment, which means that your organizational structure
      might change. How will this affect your way of working?

10   Will these changes affect your innovation capacity?

11   What do you do to encourage creativity?

12   How big affect does the external environment and the customer in the creation of
      innovations?

13   Is there a risk that your customer focus impede innovations?

14   Your organizational culture seems like its made for innovations(open communication,
      short roads to decisions etc.) How will you sustain the innovation culture while
      expanding?

15   Is your culture tenable? We see similarities to FramFab, where the playfulness
      disappeared.

16   Is there limit for how much you can grow?

17   You don't seem very worried that competitors will catch you and put up a fight. Why?

APPENDIX III

Interview 2:

1. How different is the background, education and demographics of the employees?

2. How has the friendly spirit changed since the start?

3. Does the employees feel encouraged to innovate?

4. Where is innovation situated on the agenda?

5. Is TAT supportive of this process and does TAT often try the ideas of the employees?

6. How do you use and interpret the ideas of the employees? How are they chosen?

7. Do you have a knowledge management system?

8. How has the culture evolved since the start? Is the friendly spirit as tangible?

9. Is the organization horizontal or vertical?

10. What culture do you have in TAT? What is highly valued among employees and managers?

11. Do you have a lot of Slack? Resources to be creative and make mistakes?

12.   Do the employees share your vision?

13. How often is it discussed at meetings and in discussions for strategic choices?

14. Do you have bonuses or financial compensations for innovative ideas or likewise?

15.   How do you handle failure?

16.   How many resources do you put on a new idea?

17.   How do you divide tasks among the employees?

APPENDIX IV