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Risk management techniques and attitudes towards operational risk

A case study within the Swedish health care industry

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ABSTRACT

The Swedish health care industry is very unique due to the “free” services provided to its citizens from the public sector, which is in contrast to other private organisations. This shapes an interesting comparison in their attitudes towards risk and consequently their managerial approach towards the techniques they use to handle risk. This study investigates the relationship between these two organisations located in different sectors, private and public, in their risk management and focuses on how they might affect the whole decision making process in the presence of a potential risk that needs to be addressed. The empirical results have been constructed by collecting and interpreting data through in-depth and personal interviews with individuals in different managerial positions in two different companies, this is in order to give the study a well-rounded perspective. The authors of this study found that both organisations used basic and simple risk management techniques. Furthermore, another observation is that there is a slight difference in the attitudes towards risk between the sectors, where the private organisation seems to have a more risk-loving attitude whereas the public one has a more neutral view. However, a more surprising result is found within the organisations concerning an increased risk-loving attitude rising with the decision-makers hierarchal position.

Keywords: *Risk management, health care, attitudes towards risk, hierarchy, private sector, public sector, Sweden*

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ABSTRACT

1. INTRODUCTION
1.1 Definitions

Risk	is defined as the existence of possible outcomes associated with a decision with an assigned probability of occurrence to each one of the outcomes (Thomas & Maurice 2014).
Risk Management	is a two-step process - determining what risks exist in an investment and then handling those risks in a way best-suited to your investment objectives (Investopedia A 2014).
Operational Risk	a form of risk that summarizes the risks a company or firm undertakes when it attempts to operate within a given field or industry. Operational risk is the risk that is not inherent in financial, systematic or market-wide risk. It is the risk remaining after determining financing and systematic risk, and includes risks resulting from breakdowns in internal procedures, people and systems (Investopedia B 2014).
The concept of ”free”	the public health care is indirectly financed by taxpayers therefore not entirely free (Nilsson 2013).

1.2 Background

The world is perceived by many to become a riskier place, which surrounds and affect us all (Stiffert 2013). Risk and uncertainty is something that has been integrated in the everyday life of all individuals, but also affects every company and organisation. Therefore we have to ask ourselves what risk actually entails. The term risk can be explained in multiple ways depending on what context that one identifies risk with. Risk associated with the business world is something not everyone seems to be familiar with. On the other hand, most people are quite aware of the fact that risk management influences some aspects of their everyday choices. However, at its most basic level, the definition of risk is uncertainty that matters (Lindblom 2013). Firstly, uncertainty is typically defined as, when there are several state of nature for one outcome but lack of probability (Jones 2004). Secondly, it should be stressed that it should also matter, but for whom does it matter to? Risk has several dimensions and for corporations such as strategic risks, operational risks, labour-oriented or financial risks are some aspect of risk they might encounter. Nevertheless, to clarify risk as a whole one can use concepts from finance (Redhead 2002).

In the process of decision-making there are several factors that will influence the outcome. Companies can actively make decisions to create positive and negative externalities, similar to people's everyday choices that can affect something or someone that was not intentionally included (Jones 2004). Hence, risk is subjectively defined by the decision-makers and faces the challenges of eliminating or minimizing it with the tools available (Krimsky & Golding 1992). If there are tools available for the decision-makers to use which claim to work in aid of generating positive results, why are the failures of high level management toward risk management being portrayed in mass media. Failures lead to profit loss for the company as well as for the creation of possible negative externalities without compensation, which ultimately increases the risk to diminish shareholders value. Is there a correct answer to how companies and organisations should manage risks?

Risk is perpetually evolving and so is the society's demand set on business governance. For instance, the stakeholders and legislators expect the companies to be transparent in their choices they make within the challenges they face (Salvi, Merad & Rodrigues 2005). Naturally, these demands assist towards the prospering and welfare of society, making sure that companies do not create negative externalities without paying a penalty fine. This is a challenge that companies have on their table. Unfortunately, this challenge failed for BP oil group, former name British Petroleum. In 2010, where an explosion of an oil pipe in the Mexican Gulf killed eleven people and created an environmental hazard, with BP receiving a fine of over seven billion dollars. In addition, this fine excluded the twenty three billion dollars they had to pay before the fine was set (DN, 2012). The amount of oil that leaked was not stated but this incident is called the Deepwater Horizon catastrophe. Why did this happen? Speculators claim it was a mix of human factor, mechanical default, the utilised technical instruments, implementation and the complex social teamwork (DN, 2010). Arguably, this environmental disaster could have been avoided if the communication between the participants between the companies involved had been improved (DN, 2010a). Unfortunately, BP did not manage their risk accordingly and therefore had to suffer the consequences. By the magnitude of the consequences presented in this case, it is clear that companies need to concentrate profoundly of managing risks to avoid setbacks. Although this event occurred in a specific industry, it is a great example that demonstrates the potential magnitude of failure that can arise from an inadequate risk management. Hence, it is important to learn from the mistakes made in various industries to prevent similar or other extreme incidents.

According to Hilson and Murray-Webster (2007) an essentials step towards the success of a risk management plan is the employers' attitudes on risk at both the individual level and as a general attitude for the company as a whole. Furthermore, they stress that attitudes impregnates every phase of a decision making process towards the construction of the company's risk management. However, as experiences have shown, risk management tend to break during pressure, so what are the companies forgetting during the implementation process (Shojai & Feiger 2010)? Some would argue that they forget to implement the correctly managed human factor also known as operational risk, in specific the right attitude (Hillson & Murray-Webster 2007). This fundamental, and somewhat overlooked factor needs to be incorporated while constructing a risk management plan due to the additional positive outcome that arises from this. Risk management has a strong relationship with the stability of the company, thus the essential base is to create a culture of attitude within the firm. Hence, an optimal environment for the usage of risk management techniques can be obtained (Hillson & Murray-Webster 2007). Most importantly, the risk attitude is not based on a generic characteristic but is rather formed by the situational perception. The surrounding of the individual or organisation shapes the attitude. Therefore, to influence the attitude, one needs to influence its environment (Hillson & Murray-Webster 2007)

Risk management is a well-studied area in theory but not in praxis. However, the attention towards risk management has doubled during 2012 (Ferma 2012). There is a perceived information gap of how companies actually implement and select these theoretical prerequisites to handle the variations of risks between the public and private sector. In theory, there should not be a difference in risk management between public and private firms. On occasion public organisations, compared to private organizations, can find themselves being scrutinized by media more frequently (Clark & Creswell 2010). This might be explained by the fact that there is a public interest in public organization especially on their management of the taxpayers' money. Moreover, there is a larger probability that a private organisation compared to a public one, will promote their own utility more than for the society as a whole. This might depend on the fact that most companies are considered to be focusing on maximizing their own profitability. The theories of homogeneity between public and private organisations do not always coincide, hence the speculation of the emergence of different techniques.

The Swedish health care industry is interesting to study because of the rather unique fact that the public health care is financed by taxes, which all taxpaying citizens contribute to (Skatteverket 2005). Due to the way of financing this part of the industry, it is intriguing to further investigate their risk management and their attitudes towards risk. The comparison between the public and private sector becomes more captivating in businesses where contrasts in the financial aspects exist, like the health care industry. The incentive towards why this study highlights the contrast between public and private organisations is the fact that the consumers within health care industry have the option to pay for private health care or to utilise the "free" health care provided (Nilsson 2013).

A big part of the public health care in Sweden consists of private organisations that have agreements with the county council or urban commune (Nilsson 2013). The private health care organisations can have agreements with the public health care organisations but they are owned and managed privately. Due to these agreements the definite lines between public and private health care are hard to recognize, but the authors define the public health care organisations as public if they are financed with taxes, which concede with the definition made by Skatteverket (2005). Due to the existence of these agreements, an additional incentive arises for comparing the public and private health care sector.

1.3 Problem discussion and research question

Risk management can be considered to be quite an enlightened area. The result of previous studies investigating the attitudes towards risk management in public organisations, like the health care in Sweden, indicates a noticeable discrete view on risk-taking amongst the organizations employees (Hood & Rothstein 2000). However, there are other studies that disagree with this statement. According to Chen and Bozeman (2012) there is a more risk-loving attitude in the public organisations. This ultimately creates an interesting debate about the conflicting studies. Therefore, it is intriguing to research what attitudes dominate the public and private sectors in the Swedish health care industry.

Nevertheless, one could argue that being risk-averse is inefficient and will consequently increase the firms' probability of failure. For this reason, having a modest approach towards risk, which consequently lead to the replacement of the decision-maker with another who obtains a more risk-loving attitude. Thus create efficiency (Dhar 2013). This is especially illustrated in the managerial hierarchy of a company, whereby a positive relationship arises between the level of position and the amount of risk the individual is ready to take on (March & Saphira 1987). However, the top management level tends to fail to convey the risk attitude throughout the whole company. In fact, top-level managers might lack the courage to believe in their ability to judge the major steps within risk management themselves (Ferma 2012). These previous findings create an interesting ambiguity between the success and failure of risk management due to the organisations or decision-makers attitudes towards risk. Therefore, it might be interesting to investigate these results further and use new findings as a complement to these previous studies.

The general perception of the risk management concept is that it can be tricky to implement without prior experience, hence creating difficulties when choosing a method to implement. Risk management provides an extensive variation of techniques to assess and handle risk, and therefore it can be beneficial to possess some prior knowledge of the available options. This may expose the complexity of problems for companies because of the struggle of collecting the right information that is applicable for their specific risk management problems. Importantly, an obstacle that a firm might be confronted with, is the decision of which model that are best suited to handle the challenges that they face (Pace 2008). Every company has their unique way of determining its risk management and therefore no solution will be universal but rather a firm-specific assessment (Loghry & Veach 2009). In the vast world of information the firm must narrow it down and hereafter, the decision-makers need to appoint a model that serves as a fundamental base in the success of managing their risk (Pace 2008).

The theoretical models of risk management does not take all possible variables into consideration, which can lead to unknown and drastic negative effects when put into practice (Merna & Al-Thani 2008). This can also be supported by Shojai and Feiger (2010), which state that no model can be implemented in practice due to the lack of ability to be efficient. Consequently, it is important to modify the techniques to match the specific desire of the company in order to be able to capture the benefits that arises from the implementation. A problem that can occur is when a company chooses a technique without profound consideration and thus, it can consequently fail to manage the risks correctly. Managing the risk should not be limited solely on finding accurate tools and generating precise results as being a significant step of risk management. Instead, it is the externalities of incorporate risk management techniques that are the fundamental reason behind its positive effects (Millo & MacKenzie 2009). It is important to acknowledge that risk management techniques might not be completely accurate, but this does not make it neglectable. All of these techniques have one very important effect in common; to start the process of thinking about risk.

In this report a comparison between a public and a private organisation will be made to provide the reader with a deeper understanding of the concept of risk management. This comparison is interesting because of the prior conclusions made in previous studies, which indicate the existence of different attitudes towards risk depending on weather the organisation is public or private. Therefore similar traits within the Swedish health care might be found and consequently strengthen the previous conclusions. The literary study, which the authors of this report have conducted, implies that an information gap exists, in the area between a public and a private organisation when it comes to utilised techniques and the attitudes towards risk, in Sweden. This indicated gap of information motivates the authors of this study to investigate this particular area further. To be able to conduct this investigation the category of the risk in question must be determined. This study will focus on the operational risks that an organisation may encounter. Furthermore, it might be intriguing to explore the differences between organisations in their choice of risk management techniques. An incentive for this particular part of the research is to explore the level of knowledge of risk management within the Swedish health care industry since there is a limited amount of public information available. Additionally, it would be interesting to see what degree of applicability the general various risk management models and techniques has and if these are relevant in this particular industry. The following table states the two questions of formulation that has been extracted from the discussion above.

Table 1.1 *Questions of formulation*

Questions of formulation:
Which risk management techniques do the companies use to manage their operation and are there any differences between the managing approaches to applying these techniques?
What attitudes towards operational risk do the companies obtain and is there any divergence?

1.4 Objective

The objective of this study is to gain more insight into the issue of risk management by investigating the attitudes towards operational risk and the techniques applied by the public and private organisation within the context of the Swedish health care industry. The aim for this study is to add new knowledge to the previous findings in this area and to provide new insights into those risk management applied in public and private health care companies in Sweden.

2. METHOD

2.1 Research design

This study can be classified as inductive, which implies a conduct of gathering information to analyse and then form a conclusion of some sort according to Jacobsen (2000). This study has limited information about the formulation of question and therefore has to gather information through interviews to be able to make a conclusion. The execution of a scientific research study can be divided into two main categories: qualitative and quantitative. In a qualitative study the research is collected in words, which gives a specific point of view on the data. Meanwhile in a quantitative study the collection of data is collected in numbers, which is a more statistical approach. These different main categories can be used separately or combined. If choosing the latter alternative the quantitative research often operates as a base for the quantitative study. According to Jacobsen (2002) the combination of the two approaches creates a well-rounded alternative because it increases the validity and reliability of the study if the result is similar, but this is very costly and time consuming to realise.

This study has been accomplished with the help of a qualitative method, because of the complex nature of the report's objective which are: *what* attitudes exists in the organisations and *how* does public and private health care organisations differ in their chosen risk management techniques. These questions are complex because they involve a process of collecting, to some extent, unknown and sensitive data, which might not have been enlightened in Sweden before. Due to the relative unexplored nature of this study an explorative research approach is applied (Stebbins 2001). In an explorative approach there should be no pre-knowledge of the particular organisation's risk management before finding the differences when studying the two different companies. The qualitative method focuses on creating an understanding of the problem by studying a minor set of data in their respective context (Jacobsen 2002). Hence, a more interpretational view of the data can be obtained. The usage of a case-study approach is selected to collect relevant data for the selected research questions because of the qualitative focus. This method gives the study a specific input of a special case. By expanding a sole case study, where two or more organisations are observed and studied, a comparison analysis can be accomplished.

The nature of the research questions is best explained by studying at least one organisation in each sector.

The exploratory approach is chosen because the authors of this study have not found information of earlier studies about the differences between the public and private health care organisation's risk management in Sweden. However, the authors have found similar studies in other industries conducted in other countries like the article of Hood and Rothstein (2000). According to Jacobsen (2002) an exploratory approach is a good utilization tool to figure out which variables are relevant and what values the variables can assume. The aim of an exploratory study is to expose new knowledge or develop a theory, which can lead to a hypothesis (Stebbins 2001).

2.2 Data collection

This report is compiled of data from primary and secondary sources to form an analysis, in order to answer the chosen research questions. Primary source is defined as data that has been collectedly gathered by the researcher for the first time. This data can be found in sources like interviews, questionnaires and observations. Consequently, because it is exposed to the data directly the researcher can assess and interpret the findings. The secondary data can be defined as information that has been compiled by others than the researcher, usually in forms of writing material (Jacobsen 2002).

The sources for the primary data in this study are prominently dominated of in-depth interviews, in order to fully understand the attitude toward risk the company or decision-makers have and how they identify and manage risk within the company aligned with the legislation in their field. This data collection is customized to give the interviewer an effective and structural way of understanding the interviewee. This means that the interview process will be semi-constructed and hence not fully open.

The participating organisations in this study are Sahlgrenska University Hospital (SU) and Art Clinic. SU provides the public health care in Gothenburg. Since SU is a very large organisation the authors of this study have chosen to only investigate area three of SU, Mölndal. Mölndal is one of three hospitals that together form SU (Sahlgrenska Universitetssjukhus B 2012). Art Clinic is a private health care company that specialises in the cosmetic surgery, which is mainly located in the same area, Gothenburg (Art Clinic 2013). Incentives to why these two organisations have been chosen for this study is partly because of their large market shares within their respective field (Västra Götalandsregion 2013; Art Clinic 2011). Their prominent positions create incentives to why these particular organisations might be interesting to analyse, as they could provide general indications of attitudes towards operational risk and approaches to manage risk. Another reason is that the primary services provided from both of these companies are pre-ordered. Around 50 % of Mölndals' volume of business is pre-ordered according to the Manager of Area Three. This contributes to the arguments to how the authors can compare these two organisations with each other. Although, it is important to recognise that the differences between the provided services by the organisations might affect the result of the empirics. With that in mind, the authors have tried to take it into consideration while collecting and analysing the data.

The primary data have been collected by in-depth interviews with seven selected individuals that obtain the required knowledge of the subject that is investigated. Three individual are from Art Clinic and four from SU. All of the selected interviewees from both organisations have different positions within the company, and was chosen to be able to attain a more general and broad perspective of the attitude towards risk and which techniques they use. The positions of the interviewees range from managerial, economical to human resource oriented. The CEO and founder of Art Clinic were interviewed, to give a general perception of the company and the risk management they utilise. Furthermore, the Chief Economist was approached to provide a more financial perspective of their risk management. The Human Resource Manager was also interviewed to give a perspective from the operational level. Moreover, the interviews were conducted in the facilities of Art Clinic to give the interviewees a more comfortable and familiar environment. This is something that should be in consideration during the data collection and analysis process. It is called the context effect, which according to Jacobsen (2002) means that the individuals might alter their answers dependent on the circumstances of the interview.

The first interview from SU was conducted with the Manager of Area Three, Mölndal, to get a more managerial and strategic aspect of their risk management. Furthermore, the second interview was performed with both the Head Controller and the Chief of Economics, to obtain a more financial view. Moreover an interview was conducted with the Head of Activity to acquire a more operational perspective. Consequently, all of the participants are profoundly informed about the risk management within company and the techniques they utilise. This means that the study has an intense approach when collecting the data where the interviews focus on a few number of units to get as complete a picture as possible of the situation. This approach is supposed to give a detailed and nuanced picture of the situation with the assistance of as many variables as possible, which is described by Jacobsen (2002).

In addition, the interviews have been conducted in-person, which gives the interviewer the chance to observe the decision-maker in their element. With observations and the records of the interview, this data is the essential form of the primary data. The utilised interview outline and question template can be found in the appendix.

The secondary data in form of documents and literature have been assorted through various information channels available at the University of Gothenburg. For instance the literature has been obtained through the University's library catalogue and other various documents and articles through several databases. The primary and secondary forms a foundation to understand the risk attitude involved, the risk methods and finally the differences between these sectors. According to Jacobsen (2002) should these materials be narrowed down to the most essential and relevant information that can be used when analysing the data.

2.3 Data analysis

After the gathering of data there will be a vast collection of information that must be reduced and categorized to form a structure amongst the information, in order to make it easier to interpret and to be analysed by the researchers. The systematic information will then be combined to make comparable patterns to then with the help the theoretical framework form an analysis. The interviews has been conducted “face to face” and therefore they have been be recorded and transcribed with the consensus from the interviewee, which can be replayed for extraction of the fundamental and valuable information to this report. This minimizes the occurrence of the authors' own interpretations when complying the material in the empirics. It is also important to note the observational information occurred in the interview room, which was not necessarily stated in word but more in body language and information about the context, was taken in consideration during the data collection (Ekholm & Fransson 2002).

To be able to form conclusion about the differences between the private and the public sector the data must be comparable. Furthermore, the interviewers endeavour to be objective towards the information collected from the interviews. The two organisations are fully informed about the intent of this study, and therefore it is very important to critically assess the given information. Mainly because the information may have been altered to make the organisation in question be perceived better or superior and consequently purposely excluding the struggles and obstacles that are in not their favour. Moreover, because of the fact that there are regulations in this field that the organisation has to align themselves with, it might consequently make the respondents alter their perception towards the interviews to disguise their flaws.

In order to analyse the collected data the following steps has been taken. Firstly, to reduce and simplify the understanding of the vast collection of data from the interviews, it was transcribed and divided into four main categories within each organisation. The categories are the interviewees' definitions of risk, the identified risk management techniques, comparison between the organisations managerial approaches towards risk and the general attitudes towards risk of each interviewee.

Secondly, a formation of lists has been done visualising the various risks mentioned by the interviewees in the form of both one collective and one separate for respective organisation. By doing this the authors created an illustrative understanding of the basic findings in the vast empirical material. Furthermore, the authors extracted the most important or more emphasised risks in the collected data. Then the risks were ranked based on their significance to their respective organisation and industry.

Thirdly, two lists summarising all of the mentioned risk management techniques were constructed, which also contribute to the visual understanding of the collected data. Thirdly, further categorising has been done through dividing the risk management techniques into general, external and internal. Hence, giving a more detailed perception of the mentioned risk techniques and which kind of risks they are applicable to.

Lastly, after the categorising had been organised and structured a comparison of the collected data with previous studies and theories was fashioned to be able to find comparable patterns, but also dissimilarities to form a discussion. Moreover, the attitudes that was observed amongst the interviewees was identified and placed into the three discussed categories about the theories of risk attitudes to then consequently find rational relationship to why this was the case. Lastly, the discussion was driven further with the investigation about particular patterns of the industry and organisational theories to be able to brainstorm analytic arguments. This can be illustrated in the discussion of the diversification of risk management within the hierarchy of the organisations in this particular industry.

2.4 Validity and Reliability

It is important to ensure the validity and reliability of this study. Validity ensures that the means of how one try to answer the research question actually use suitable measurement to do so (Jacobsen 2002). Hence, it measures the accuracy of the findings from the data collections. The authors have used the presented research design to acquire information that has then been processed and analysed. Thereafter, based on what has been found the authors constructed a conclusion and subsequently answer the chosen research questions. The reliability in this investigation relies on the fact of the information given by the correspondents in the organisation but also on the evaluator of data analysis. The reliability of the study measures the level of reliance of the data that has been given throughout the collection period (Jacobsen 2002).

The presence of the researcher or someone outside the organisation may alter the answer or data given from the primary source, which can be referred as the *Hawthorne effect* (Jacobsen 2002). If the person is outside their office or from where they usually operate it might lead them to be out of their comfort zone and subsequently give altering answers, which it is referred to as the *context effect* (Jacobsen 2002). The secondary data should be assessed critically based on which source the data originates from as well as of the fact if data is useful for the researchers or have a complementary purpose to the primary data. This is strongly related to the reliability of the study.

One important factor that increases the validity and reliability of this study is the prominent positions and extensive experience of the participating interviewees. They are able to convey their own perception of risk management through the personal interviews. Furthermore, it is important whilst reducing this data that the authors do not alter the information and hence constrain the amount of interpretation. To increase the accuracy of the presented answers all of the sessions are recorded and transcribed. However, it is important to notice the issues with translating the interviews into English after being conducted in Swedish. The authors have attempted to be careful and have put a lot of attention during the translation between these two languages to reduce of the risk of misinterpretation. In addition to this, assumptions and other biases may alter or change the characteristics of the collected material and analysis. For example, biases can be in form of pretence knowledge, personal biases, and political and personal opinions.

3. THEORETICAL FRAMEWORK

3.1 Previous studies

In the field of risk management there have been extensive studies conducted that the authors of this report particularly draw from. The reason behind this is to create an understanding of the current knowledge in practising risk management at the corporate level.

Risk management is a well-known concept by researchers and it is fairly believed to be efficient when used in a correct way. Companies and their decision-makers define this field as one of the most important areas that the company needs to manage (Froot, Scharfstein & Stein, 1993). Evidently, most companies deal with some kind of risk whether they are aware of it or not. However, some would argue that these theories would not be applicable in practice. This discussion originates from the fact that known theories have failed to prove that they actually manage the risk even though the decision-maker is aware of the magnitude of risk the company might encounter. Shojai and Feiger (2010) states that no model has yet been found to be effective in practice when examined and that it merely create an illusion of security within the company. Therefore the focus should instead be shifted to collecting the right data on risk. This is impossible according to their study, due to the inadequate IT and operational infrastructure companies have. In their conclusion they states that the managers or decision-makers should focus more improving their information technology and their operational infrastructure within their organisation, rather than to apply a risk management method that would only break under pressure.

Millo and MacKenzie (2009) argue in their study that the risk management is successful not because for its accuracy but more for its usefulness. Even though it is essential to be accurate during difficult periods for the purpose of the company's survival, the methods have a direct use on their technological and operational structure. When companies use risk management this will automatically increase their communication flow between the actors involved, and will together with more clarified and structural financial data consequently making the decision-making process more efficient. Therefore, companies should use the methods because it fills a purpose even though the result may not be certain. However, organisational and IT factors will create a positive outcome for the company. As a result it is argued that the kind of model the company chooses might not be essential in capturing the benefit of risk management but more about increasing the communication flow (Bracken 2008). This refers to increasing the speed and accuracy of information flowing between different partners, for example the communication flow between the CEO of a department store with the merchandise executive of one of their branches.

According to Subramaniam et al (2011) there is a relationship between the positive payoff of an organisation and the level of formulation of their risk management. It focuses on standardizing their policies and regulating their activities to formulate their risk management approach. The formulation has an increasing positive impact as the number of risk management methods chosen to incorporate increases. There is a strong interrelationship between the external consultant hired for the implementation and execution of their risk management methods that they then choose to apply. Therefore their study recommends that with formulated risk management, external consultants and an enterprise risk management (ERM) approach companies can strengthen their current relationship with their stakeholders and also strengthen their current position in their respective markets.

In this field there is also an interest in on what kind of different attitudes that the decision-maker might have towards risk, which according to Jones (2004) can be categorized in to three main views: being risk-averse, risk-lover or a risk-neutral. These attitudes may be the underlying factor to which methods of risk management that will consequently be chosen and this view of risk management is often referred to as the expected utility theory (Jones 2004). However, investigating what the decision-makers utility or how the indifference map would look like can be inaccessible when it comes to gather the information (Sendi, al & Zimmerman, 2004). Hence, implementing the utility theory in practice is too difficult to conduct. Moreover, the consensuses amongst researchers show that most people or decision-makers are risk-averse when dealing with larger quantities of risk (Wu & Olson 2009).

Where there are a vast abundance of available financial instruments, the majority of companies choose risk management techniques that are straightforward and uncomplicated. Thus, the majority of companies use financial derivatives and as there are risks in many different forms, companies usually identify and focus mainly on the most important to manage (Bodnar et al, 2011).

An obstacle the public sector may face is the balance of their risk trade-off because the sector itself does impose and regulate risk at the same time. The public sector struggles in what level of risk it can impose for the wellbeing of the society (Smith & Torft, 2010). In contrast to this, Chen and Bozeman (2012) states that there is a more integrated attitude of risk-aversion amongst decision-makers in the private sector, which might be explained by the insecurity that top managers have.

According to Hood and Rothstein (2000) public sectors focus more on services to citizens rather than what could be beneficial for the organisation. The view of shareholder value that organisation might have, is replaced by the public value, meaning the total value for the citizens. Their study also highlights the fact that public sectors are more averted towards risk than private sectors. They also discuss that if the implementation of risk management is inaccurate, this might result in negative side effects, which would stretch the already extensive constraint of blame avoidance within public organisations.

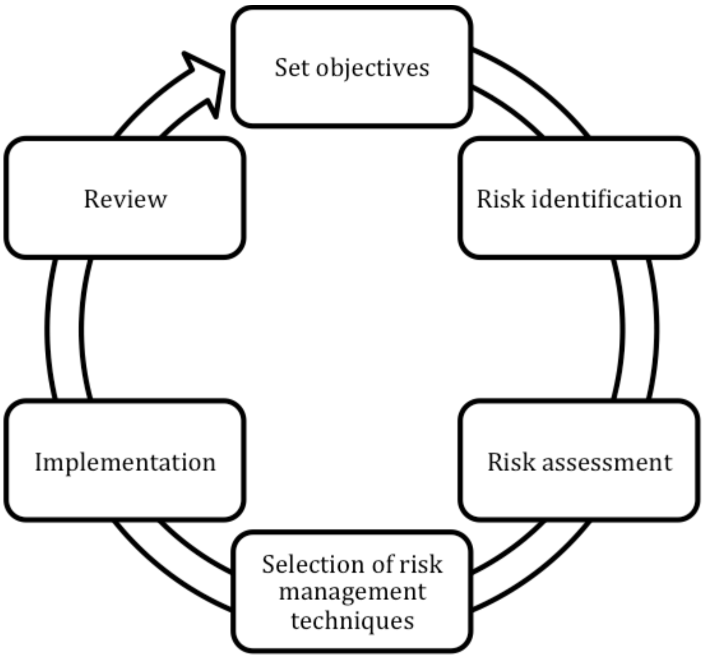
3.2 General theories

Firstly, it is important to have in mind that risk management is a dynamic process that consistently changes and evolves. If the risk management does not evolve within the organisation problems might occur further ahead. Secondly, it is vital to think of efficient risk management as a systematic attempt to analyse and deal with risk exposures, whereas one or several methods are used to explain or illustrate a problem (Jones 2004).

There are a few various standards for risk management that can be used as a fundamental approach towards risk. It is worth noting the differences between standards and framework and to have it in mind when further discussing this topic. Standards are the combination of a description of the risk management process together with the recommended framework. There are four main standards: ISO 31000, Institute of Risk Management (IRM), COSO ERM and Criteria of Control

(CoCo). These standards all refer to a tailored framework that describes the various steps of risk management (Hopkin 2012).

A general model of efficient risk management is presented in Figure 3.1. The figure shows the six most important steps for creating a successful risk management strategy. The first step is to set an objective and specify why this strategy will be designed. The second step focuses on the identifications of risks. Next step is to assess the risk and then select a risk management technique to suit the chosen risks, which is the fourth step. Then the fifth step is to implement the technique to accomplish the objective with the strategy. After the implementation the whole process is reviewed to identify improvements (Jones 2004). This general model is similar to the frameworks of the four standards of risk management.



Compiled from Jones (2004).

Figure 3.1 *Major steps of efficient risk management*

The general model is the base for most businesses and organisations in their risk management but the steps may vary. There are two main sorts of risk management techniques: qualitative and quantitative.

3.3 Qualitative techniques to manage risk

There are many qualitative techniques to manage risk with and some mainstream tools are now used by all kinds of businesses. An example of such mainstream techniques is the Brainstorm technique, where a group of people redefine the problem, generating ideas, finding feasible solutions and reviewing the process. Moreover, when a group of experts, like consultants, are asked to make their forecast independently the technique is called Delphi. There are several deductive techniques for example one is Checklists and another is Prompt Lists. The Checklists use previous encountered risks to identify the actual risk and the Prompt Lists classifies risks into type or area groups like financial, technical or environmental area (Merna & Al-Thani, 2008).

A more modern technique is the usage of Risk Registers where the records of each risk is documented and put into a database. The record should contain several variables like previous risks, probabilities and impact etcetera. There are also some more graphical techniques of managing risks like Risk Matrix Chart, which separates high-impact risks from low-impact risks. Hence, it analyses the probability and the impact of each risk (Merna & Al-Thani, 2008).

3.4 Quantitative techniques to manage risk

There are several different quantitative techniques one can utilise to manage risk, such as sensitivity analysis. The Sensitivity Analysis is used to produce realistic values, supported by a range of possible alternatives that reflect uncertainty and provide some means of validity of the assumptions. This technique is measured by net present value (NPV) and internal rate of return (IRR). The aim of this is to identify the risks, which might have a high impact on the cost or the timescale of the project (Merna & Al-Thani, 2008).

3.5 Attitudes towards risks

According to Jones (2004) there are three main attitudes towards risk, which are termed as risk-averse, risk-neutral and risk-lover. The first one embodies an individual who avoids taking on additional risks and acknowledges the trade-off between profitability and risk. The second attitude is neutral towards risks, but this individual prefers the highest expected profitability regardless of the risk. The third attitude has quite a risk seeking approach, and for this individual the search for the highest possible outcome, which creates an incentive for taking on risks. These attitudes are very different and affect which of the methods is selected to handle risk. If an organisation has a risk-averse approach they will choose a tentative method to manage the risk-taking and if the organisation instead has a risk-loving approach they would choose the highest possible outcome regardless of the risks is may result in. These different attitudes form a base for another risk management technique, which is called the risk attitude and utility theory. This technique is used to pursue the maximisation of expected monetary value (EMV) for decision outcomes (Jones, 2004; Merna & Al-Thani, 2008).

3.6 Perception of risk

Drottz-Sjöberg (1991) defines and explains risk perception to be based on psychological facts and for that reason the concept of risk can be viewed differently amongst individuals. Depending on what perspective the individuals utilise the rating of risks varies greatly. This is also noticed when discussing the risk assessment alternatives. The chosen risk assessment varies between individuals with different backgrounds and may be altered. Not only because of the possible lack of clarity but also due to their own definitions of risk.

3.7 Analytical model

The scholarly articles introduce different perspectives towards the concept of risk management and have been presented to provide a basic understanding of this topic. Some previous studies question the accuracy and certainty of the practical applications of available risk management techniques that companies use today. However, a consensus amongst the scholars suggests that the usefulness of these techniques is important to recognize not for the certain outcome but for the general effects they might result in. Consequently, this is based on the improved result of collecting the right data, which is achieved by formulating and structuring a company's risk management. Some scholars even recommend hiring external consultants to accomplish this. In addition, companies often use basic financial instruments to manage risks. The first question of formulation in this study concerns the risk management tools and by introducing these previous studies a basic understanding of these tools is created. Furthermore the importance of a conscious usage of the concept of risk management is emphasised.

Previous studies expose that attitudes affect which risk technique a company selects. Therefore the attitudes towards risk are important to investigate. The importance of investigating the attitudes towards risk has been recognized of the authors of this study as well. Hence, it has already been introduced in the questions of formulations in the introduction. Nevertheless, it is important to acknowledge the constraints of mapping attitudes. According to some scholarly studies the public sector is known for obtaining a rather averse attitude towards risks and might therefore affect what risk techniques they utilise.

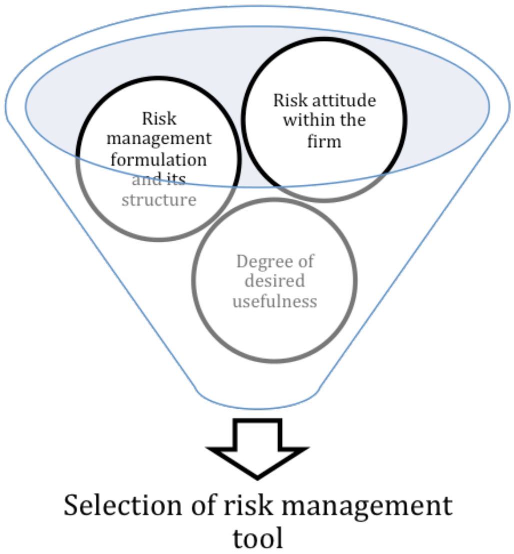


Figure 3.2 *An illustration of factors affecting risk management*

As the figure above indicates the mixture of the presented factors from the chosen previous studies will subsequently be the key ingredients to choosing a risk management tool. The two main focuses of this report are to investigate the attitude towards operational risks and the selection of risk management tools in both of these two different organisations. Furthermore it should be clear that there are other factors that might possibly affect the result but this report will not cover that.

To simplify the understanding of the results of this study the general efficient risk management model has been compiled from Jones (2004), which can be viewed in Figure 3.1. Furthermore, the same specific model might not be relevant for both of the organisations in question. The three most important stages in this model are the second, the third and the fourth stage. These stages constitute the attitudes towards risk and consequently the chosen risk management technique. In addition to this, several basic techniques are described to provide insight to which techniques companies might apply.

There are three main attitudes towards risk presented within the founding theories to form a general guideline. To extend the link between the attitudes and techniques a theory of perception is introduced. According to this it is important to define the individual perception of risk to identify attitudes that affect a company's risk management.

4. EMPIRICAL RESULTS

4.1 Art Clinic

The private organisation in this study is named Art Clinic. Art Clinic is a company within the health care industry that provides services in the cosmetic surgery business. In their own words they provide high-qualitative specialised services and focus on the wellbeing of their patients. Furthermore, they provide services in orthopaedics, eye surgery, vascular surgery and non-surgical treatments (Art Clinic 2013). Since 2010 the revenue of the business has been around 70 million SEK per year, hence obtaining quite a large market share in the private sector (Art Clinic 2012). Art Clinic has continuously evolved and expanded since it was founded in 1999. However, in 2012 they displayed a negative profit. This loss was explained by the general economic crisis in Europe and on the negative publicity towards breast implants that was spread in the beginning of 2012 (Art Clinic 2012). In addition, Art Clinic has been awarded the so-called title, Gasellföretag, by the publication Dagens Industri in 2011 and 2012. Furthermore, they were selected to participate in the final 42 companies for the award the entrepreneur of the year by Ernst & Young, in 2012, which considered to be a quite an achievement (Art Clinic 2013).

4.2 Sahlgrenska University Hospital

Sahlgrenska University Hospital (SU) is a regional hospital at Västra Götaland in Sweden, providing care to the population in Gothenburg (Sahlgrenska Universitetssjukhus B 2012). According to their official website SU specializes in over 25 areas in health care with front edge competence in fields like cardiovascular, child health care, reconstructive surgery and more. It was in 1997 when Mölndal, Östra and Salhgrenska hospital were joined together to create SU. This study focus on the health care provided by Mölndal, whose turnover lies around 13% of the total 11 billion SEK according to the Manager of Area Three, Mölndal. The medical responsibility board in Västra Götaland regional was put in charge to decide what medical attention SU should focus on (Sahlgrenska Universitet sjukhus A 2012). The board is assigned to make informed decisions in regards to the population demands and map the needs in the public health (Västra Götalandsregionen 2013). In addition to this board, SU has a political committee put in place and also a directorate to lead the hospital in their long-term goals (Sahlgrenska Universitetssjukhus A 2012). The majority of the organisation’s income comes from the medical responsibility board in form of reimbursements. The agreement with SU and the board is based on the understanding that SU should attain the goals set from the board and can consequently generate deduction if the goals are not reached.

4.3 Interview results from the private organisation

4.3.1 The actors’ definitions of risk

According to the CEO of Art Clinic, risk is hard to define because of its unpredictable nature, although the largest risk for an entrepreneur is the economic risk of bankruptcy. To simplify the process of defining risk and attach probabilities of occurrence Art Clinic utilises a prioritisation scale constructed by the management, which arises from discussions. Moreover, when the company is economically stable additional risks will be highlighted, for instance issues that might appear during surgeries. Risks like these are associated with the daily operations and may be fatal in this particular industry. The most important risk is the risk associated with the control of the patient safety according to all of the interviewees. Other risks that they have identified are the risk of fire or electrical problems, threats and violence, media, investments, the economic crisis and the decreasing demand of these particular services. In addition to these examples of risks, the human resources manager acknowledges that it is important to assess the risk associated with losing the internal focus. Another risk that all of the interviewees mentioned relates to the procurement of contracts with the government and the risk of not obtaining these.

Media risk is introduced to the authors as the critical effect of negative or false publicity. An example of this was the PIP breast implant scandal, where one of the three largest production company of breast implant conducted fraud by mixing medicine silicone and industrial silicone without consciously informing the buyers of this. The buyers bought the products unknowingly, trusting the CE-mark, which is a guarantee of quality of these kinds of products. The media thought that this mix was cancerogenic and spread fear into the public and all the women that have performed this enhancement surgery. Today, according to the CEO, it is known that these are not cancerogenic, but the damage is already done. Art Clinic offered to take the PIP breast implants out for free, which resulted in high costs for the company. Additionally, the there was a fear amongst the public to undergo cosmetic surgeries, which resulted in decreasing demand, hence decreased revenue. This introduced both the risk of media as well a newly shed risk; the risk of below standard products that subcontractors provide. The risk of deficient products of the suppliers is prominent which all of the interviewees mention it.

The investment risk was presented as the risk that accompanies all new investments such as bankruptcy, payback and decreasing demand. Pursuant to the CEO these risks are necessary to take upon if the company want to expand and develop. Art Clinic is developing a new clinic in Gothenburg, which is a huge investment, hence a large economic risk.

The Chief Economist defines risk as factors, which one cannot directly control. For instance it can be the business cycle like the demand of durable goods or the legislation. This can consequently impact the firm due to the dispute whether the value added tax should be incorporated in the price of the cosmetic surgery or not. One particular risk that Art Clinic faces is the political risk. The county council develops purchasing agreements regarding the private health care, which can result in them ordering services from firms during a specific time period. Obtaining these will consequently secure the income of the private company. However, if the firm is not part of such an agreement they can face defaulting revenue for years. Unfortunately, both the CEO and the Chief Economist feels that the council put too much weight on the price that other firms offer and not so much on the quality. Despite this, Art Clinic has taken proactive actions in form of creating a common forum for all the subcontractors and the county council toward altering the criteria for these agreements.

4.3.2 Risk management techniques

The interviewees give several examples on how to reduce the occurrence of unnecessary risks, for instance the usage of Unit Business Software (UBS) systems and having large capacity of human resources. Art Clinic endeavour to minimize the existing operational risks as much as possible by develop new and modern clinics with incorporated UBS systems, high-quality environmental facilities and control systems in all of the operating rooms. For example, the control system in the operating rooms is designed as a checklist, which starts every time before usage of the rooms. This control system checks everything from the air in the room to the operating table and the other tools. In addition to this, there is one more checklist that must be passed before the operating room can be correctly utilised. The second control checks that the patient information coincides with the reality, so that it is the right patient and procedure.

Art Clinic has a backup generator to prevent potential blackouts. According to the CEO this is very important because even though the probability of a blackout is rather low, if it happens it can result in the death of a patient. In addition to having a backup generator, they have a routine once a month, to check that it has fuel. To reduce the hazard of threats and violence Art Clinic have developed a special system, where there is an alarm button in every room to alert the police. The unit managers have risk assessment manuals called *bibles* to manage risk that might arise from different situations. These bibles can focus on staff, markets, economy and medical technical equipment. Additionally, there is a manual for media because the CEO feels that even though media has serious and less serious journalists, there are times that they unfortunately can distort the truth and interviews from their own angle.
Art Clinic follows the regulation called ISO 9001, which is a system of quality. This system focuses on breaking down to processes and highlighting the various steps. It can vary from how to take care of a patient, the consultations, operational days, and acute occurrences to constructing time manuals.

To reduce risks associated with investing, Art Clinic has several important systems ex-ante and post-ante the investment. Before the investment is made, several financial methods are used, for example a construction of a budget. Moreover, the probability of the success or failure is estimated as well as the payback period of the projects. The CEO explains that they usually make a project description of the costs and the expected revenue, to then make an analysis of the plausible reasons that can lead to failure. Subsequently, they make an evaluation of the project or investment. This process helps the management to decide if the investment should be realised. After the investment is fulfilled different techniques are used to reduce the risk of failure such as bankruptcy. To minimize the risk of bankruptcy associated with large facility investments they rent out spaces to other firms in the industry.

Something that affects all industries in a manner or so is the economic crisis, and the cosmetic surgery industry is no exception according to all of the interviewees. Therefore it is important to analyse and evaluate external factors; hence this is used as a complement to the information base in order to make some future predictions. This so-called financial crisis creates risks such as decreasing demand and consequently creates less revenue. According to the Human Resource Manager the most important tool is forward planning, making prognostications considering as many possible angles as feasible.

The CEO of Art Clinic emphasises the importance of general routines within the company to minimize general risks that can occur in the daily operations. Meanwhile, the Human Resource Manager argues that the most useful technique to measure and handle economical risk is to make a budget and to continuously assess it. The annual budget that Art Clinic utilises is constructed in a strategic way, in order to be able to analyse each doctor and his or her individual performance. Hence, the amount of consultations each doctor should do is calculated and then distributed amongst all of the weeks of the year. The assessment will be carried out weekly to increase the capacity of being able to adjust the performance in time.

The Chief Economist states that they put less focus on factors they cannot alter. Instead, they delegate most of their time on the factors that they can influence. For example, they may not be able to change the available amount of potential educated staff, but they can make themselves become a more attractive employer and consequently entice additional individuals. To achieve this they apply tools and methods such as marketing.

Furthermore, the Chief Economist mentions that the chosen techniques are not utilised in a sophisticated and difficult manner. Instead they actually use simplistic and basic tools like Microsoft Office Excel. Tools like these are used to create forecasts beyond the parameters of the current budget, hence a broader view of the risks, which are being obtained. The Chief Economist with the help of another financial manager constructs the forecasts and together they put nearly 20 per cent of their time to constructs these forecast.

With a degree of Bachelor of Science in business and economics and an executive of master, the Chief Economist emphasise that the complex models taught at University are not widely used in practice. Nevertheless, they do still serve a great purpose in risk management. He states that it is more about the aim behind the tools taught at academic level than being able to apply the model on businesses practices. The respondent emphasises to master the basic skills and be able to design an own model suitable for the particular business. All of the techniques mentioned by Art Clinic can be viewed in table 4.1.

Table 4.1 *Risk techniques mentioned by Art Clinic*

ART CLINIC		
❖ Excel	❖ Control system	❖ Backup of human resources
❖ Regulation ISO 9001	❖ Managing risk that can be affected	❖ Payback period
❖ Prognostications	❖ Macro external analysis	❖ UBS-systems
❖ Probability analysis	❖ Manual books	❖ Backup generator
❖ Budgeting and assessing	❖ Analyse reasons that can lead to failures (threats)	❖ Alarm button
❖ Project description of expected cost and revenue	❖ Checklist	❖ New and modern clinics

4.3.3 Comparison between the management approaches towards risk

The CEO of Art Clinic perceives that there is a deficient level of inspection from the county council in the private sector. Especially, the inadequate inspection of the level of implementation of the laws and guidelines set by the authorities. The inspection should measure both the quality from the subcontractor and the standard of the practitioners, but they do not. In spite of this, the CEO observes that the county council continue to buy their health care amongst these uncontrolled clinics, which also result in the lack of incentives for the companies in question to align the business to the existing regulations. The CEO believes that the private organisations should not have to pursue the authorities; it should be in the government's interest to monitor.

This phenomenon is strange but true according to the Human Resource Manager. However, the Chief Economist acknowledges a change towards the better in the area of inspection. In addition to this, fewer clinics choose to invest in terms of increasing the standard of equipment or expansions. This might depend on the fact that these investments consequently reduce the firm's short-term profit. Without the control it is profitable to neglect these costly quality and standard regulations that exist. Regardless of the fact that the private sector is not heavily regulated, several inspections will occur if there are severe complications with a patient. In contrast between the private and public sector similar incidents will be regarded differently as a result of the unequal control and monitoring according the Human Resource Manager, henceforth creating unfair competition.

The CEO recognizes similar traits of not keeping the organisation up to standard in the public sector as well. For instance, the public sector can access more resources, and just as the private sector there are cases where they take shortcuts in expense in the quality of the care. However, the economic resources are easier to muster within the private sector according to the Human Resource Manager.

The Human Resource Manager speculates the magnitude of the public sector to be a reason for the slow decision-making processes. Hence there is a difference between the sectors in terms of the decision-making speed. Another reason for the different pace of the decision-making process is the fact that public sector is political controlled. This governance creates a longer process because it has to go through several more steps and people, according to the Chief Economist.

In addition to these differences the Human Resource Manager regards that Art Clinic is special when it comes to hierarchy in the workplace. He thinks that equality is important for all their fellow workers and this is very important to create a good work environment where everyone feels included and appreciated. Compared to other organisations in the same industry, where hierarchy between the doctor and a nurse is quite prominent, Art Clinic work actively on creating an equal work place.

4.3.4 Attitudes towards risk

Considering the fast pace of technology, influence of sociocultural elements, evolution is a natural desire incorporated into the ethos of every business. To be able to accomplish a successful expansion, it is important to make investments. Therefore it is necessary to take on some risk according to the CEO of Art Clinic. Furthermore he emphasise that it is important to recognise the possible risks of investments, although it is even more crucial not to overthink risk. He also feels that this attitude is more or less general throughout the company. However, there will be times that he will need to reconsider an offer where the majority of the board thinks differently or if offer has too much of a negative effect. Keeping this in mind, he feels that he obtains a more optimistic view towards risks. In comparison with other firms within the sector, the CEO feels that Art Clinic takes on more risks due to the fact that they strive for achieving greater quality. The Chief Economist also acknowledges that they take on more risk and work more consciously with risk management compared to their competitors, which can partly be explained by their relative large size within this industry.

The Chief economist feels that it is more relevant to try to focus and prioritize on risks that the firm actually can manage and influence. On the other hand, there is a belief that there are always some actions one can make to try to alter the risk. However, he emphasised that one should not try to avoid risk and that at times managing risk can be very time-consuming. He also believes that the attitude in the firm differs because employees have different backgrounds and hence regard risk differently.

The Human Resource Manager has a fairly positive attitude towards risk where he acknowledges the challenges that they might result in. The respondent illustrates his attitude by explaining how the excitement develops with the level of difficulties, which arise when taking on challenges. On the other hand, the respondent is aware of the fact that there is a limit on how much risk one can take on. Furthermore it is dangerous to have a too optimistic view during harsh economic periods. The respondent believes that there is a positive attitude toward challenges amongst the staff. At the same time they emphasise that it is important not to push too far and always put the staffs' well-being before chances to take on additional challenges.

4.4 Interview results from the public organisation

4.4.1 The actors' definitions of risk

Something that is evident according to all of the respondents from SU is that risk can be defined in various ways. The Head Controller defines risk by the situation and context. From the managerial perspective risk is a wide concept, much more than solely the economic risks according to the Manager of Area Three. Economic risks are associated with contemporary social and environmental studies, financial risks, investment risks, risks during organisational changes, as well as medical risks. Complications with a patient might result in additional expenses and therefore not only affect the patient but also the economy of the organisation. This is something that the Manager of Area Three emphasises. The Head Controller presents similar thoughts as the Chief of Economics and the reason given by them is due to the unpredictable consequences of neglecting patient safety. The Head Controller stated that due to the importance of maintaining a good level of patient safety their financial situation might suffer, which consequently can lead possible economical fluctuation within the organisation. The patient risk is admittedly the most important hazard within the health care sector; the risk that a patient may die or develop further complications could be devastating, as exemplified above. This particular risk is according to all of the interviewees the most extensive risk, which all staff have to deal with. In addition to this, the risks associated with organisational change might be described as the risk of failure when reconstructing or discontinuing various divisions. Failures usually result in increased costs and impact of both the general economy of the organisation and the patients. This is also an important risk to recognize according to the Manager of Area Three.

The Head Controller and the Chief of Economics also emphasize on the risks associated with unsuccessfully fulfilling the demands and production goals that the politicians set. They speculate that a reason behind this might be the lack of funds for the quantity of scheduled operations or inadequate formulation of the given demand. In addition to this, the Head of Activity emphasizes that one can actively take on economic risks associated with production goals to be able to keep or hold on to their employees during harsh times. Moreover, risks within environment and IT safety are also challenges that SU encounter. However, one of the larger risks that the Head

Controller recognizes is the risk concerning the plausible leakage of classified material. Because SU handles a large amount of classified material about patients, the internal control must be enforced to such level that unauthorised individuals cannot access these. Risks associated with the growing private sector are for instance when the availability of skilled labour shifts towards the private sector, which might affect the quality of patient safety.

4.4.2 Risk management techniques

At SU there are several techniques and methods utilised to reduce or prevent risk from occurring. Something that is apparent is the awareness of some kind of risks within the organisation. According to the Manager of Area Three they continuously work with probabilistic risk assessment, plan of action, forecast models, event analysis and several datasets, in various ways. Depending on which kind of risk that is present different levels of management will have the responsibility of processing it. The risks will be attended in either the operations management or the higher level that is the area management.

When it comes to risk assessment SU have a strict model of how to accomplish a detailed and well-covered angle as possible. For example associated with property investments there is three major steps that are conducted according to the Manager of Area Three. The first one is to create a pre-study where the problem is described and a solution is presented. The time frame for this step is around 5 years. After this the directorate decides if the project should be continued or not. The second step is a so-called program guide, where the problem and solution are described in detail, and a cost sheet is introduced. The third and last step before the investment is actualised, involves creating a system record whereby the completed architectural plan is compiled and introduced. The whole process takes at least 10 years before it is completed. However, the tool of risk assessment is utilised to minimize other risks such as operational risks and patient risks. According to the Head of Activity they use risk- and impact analysis from both employee and patient perspective, which might include point systems. When utilised to analyse the patient risk it is often combined with a scenario analysis or a plan of action. For instance if a patient injures him- or herself during the night a scenario analysis might be helpful to investigate what happened and why it happened, and with the assistance of this a plan of action they may prevent similar incidents in the future. Nevertheless, these tools might not extinguish the particular incidents completely and therefore it might be helpful to invest in technical resources, like a disc that detects movements during the night. According to the Manager of Area Three this is something that SU can be better at. Additionally, the Head of Activity gives an example of the consequences of insufficient usage of the risk- and impact analysis. This shortage became obvious when SU moved their entire orthopaedics to Mölndal without making a complete analysis from the patients' perspective. This resulted in complications and even deaths of patients. Therefore he emphasized the importance of correct usage of these risk assessment models.

Despite of the great usage of probabilistic risk assessment, it is actually limited to the mind and knowledge of the participants. At SU they utilise the general tool brainstorm where they in a group assess the risks and their probabilities according to the Manager of Area Three. Therefore they assemble a group with different experience and knowledge to enlarge their overall perspective. Sometimes they even hire external consultants that possess specific knowledge. According to the Head Controller SU follows the CoSo framework, which in its initial purpose, when implemented in US, was to regulate companies and enforce a strict internal environment to improve the direction of the firm towards where it should be heading.

The usage of basic techniques like excels and simplified risk assessment templates, is prominent according to all of the interviewees. In addition to this basic tool several statistical programs are utilised by many within the organisation. The high educational level of the organisation and the nature of the work they exercise explain this. Most of the employees have a Ph.D. doctor of medicine, in different areas, thereby the focus on scientific literature is prominently embodied into the daily work. According to the Manager of Area Three, Swedish hospitals are distinguished providers and users of various datasets. After every surgery a report is written, of the procedure and result, and then directed to a central archive. Because of this there is a great deal of material within this archive. These datasets help the doctors to assess various risks in their daily work that would consequently reduce patient risks. Another technique that is mentioned by the Manager of Area Three is the classical SWOT-analysis, which involves analysing the strengths, weaknesses, opportunities and threats of the company.

The Head Controller describes risk assessment as budgeting, constructing an operational plan and the constant evaluation of the situation. In addition to this, aid processes are put in regards to the patient safety, environment, IT and so on. The respondent explains that the theoretical models about risk assessment are not relevant because they are not applicable in praxis. She emphasises instead on mastering an analytic skill and set an amount of time on the task at hand. Risk can be broken down into several categories to then be processed. As SU might at times work with other partners in their work the risk is distributed to all the parties.

The time spent on assessing risks is fairly low according to the Head of Activity, with the exception of economy associated with the monthly reports. However, the Head Controller and the Manager of Area Three mention that they spend most of their time assessing different risks. All of the techniques mentioned by SU can be viewed in table 4.2.

Table 4.2 *Risk techniques mentioned by SU*

SAHLGRENSKA UNIVERSITY HOSPITAL		
❖ Excel	❖ Constant evaluation	❖ Event analysis
❖ Regulation CoSo ERM	❖ Categorising risks	❖ Risk assessment model (pre-study, directorate…)
❖ Forecast models	❖ SWOT	❖ Datasets
❖ Probabilistic risk assessment	❖ Simplified risk assessment templates	❖ Statistical program
❖ Budgeting	❖ Plan of action	❖ Brainstorming
❖ Constructing operational plan	❖ Scenario analysis	❖ External consultants

4.4.3 Comparison between the management approaches towards risk

The first identified difference between the public and private sector, by all of the interviewees, is the way the organisations are financed and governed. All of the interviewees mention and explains that SU is financed by taxpayers and is politically governed; therefore the organisation is not governed to maximize the profits. They also explain that this undoubtedly puts a large constraint on the margin of managing risks. The fact that the political governance might change every fourth year, due to the elections also contribute to these constraints. According to the Manager of Area Three describe that this continuous change of leadership produces a problem of ability to create a long-term plan and strategy. Furthermore, the spending plans are limited to 1 year, which adds to the difficulties of creating a long-term strategy. Moreover, to please the politicians and the users of the health care at the same time creates great obstacles. Because of the political governance there is a chance of creating contradicting goals for the public health care, which is a problem that the Head Controller recognizes. In addition to this, there is a large difference between how to manage your own money and someone else's. The attitude of handling tax revenue to finance the operation might differ from person to person. This might be a problem according to the Manager of Area Three, and for him it is very important to handle this money with absolute respect and humility.

The organisation is given a fixed amount of money to distribute over the year. The money should be delegated so everything can be paid for including workforce, tools, facilities, insurance, education and research etcetera. Therefore prioritisation is required. In addition to the constrained amount of money provided the amount of production is pre-ordered. The money distributed to the organisation does not always cover expenses for the amount of pre-ordered production, which result in the need of additional focus on streamlining the production and minimizing costs. Because of these constraints cash deficiency is quite common. The public organisations cannot utilise the tool of increasing the production to decrease the cash deficiency. Consequently, this means that SU cannot increase their production to increase the revenue; it will instead have the opposite effect. According to the Manager of Area Three, the only way of reducing the shortage of income is to reduce the costs. To either produce less or to fire employees. On the other hand they do not suffer the risk of bankruptcy that the Head of Activity emphasizes. He speculates further that this might give the private sector better incentives for intense risk assessment in a way that the public sector does not. Furthermore, this together with inadequate knowledge might result in the public acting more inexperienced compare to the private sector in their long-term risk awareness.

The political governance presents several rules and guidelines that are heavily controlled within the public health care. According to the Head Controller SU is heavily regulated in forms of surveillance and control. The private companies do not have this control by politicians, which creates an extensive difference although all companies within the health care in Sweden abide to the same law. Furthermore, the size of the organisation creates difficulties towards managing risk that smaller private organisations elude. In addition to this, almost all of SU's enterprise is presented in public documents, apart from the classified records. This publicity creates a greater insight into the public firm, which is absent in the private sector.

It is also important to disambiguate that there is one more difference: that the basic medical treatment cannot malfunction. To be able to accomplish this it might increase the costs of the organisation according to the manager of the operational activities.

4.4.4 Attitudes towards risk

The attitudes towards risk can vary, which is evident in SU. According to the Manager of Area Three and the Head of Activity an organisation requires all kinds of approaches towards risk, in order to create a proper management. It is important to have divisiveness to be able to make good strategic decisions and risk assessments. Some need to be very risk-taking and some need to be very risk-averse to shape contrast, thus a successful discussion and assessment of the risks. The Manager of Area Three thinks of himself as an entrepreneur and quite risk-taking, and stresses the importance of having the will to continuously evolve both personally and professionally. At the same time he describes the difficulties of taking risks because of the ethics of being financed by the means of tax. In addition to this, the political governance and the income constraints are also described as a constraint on the ability to take risks. The Head of Activity described money as something fictitious and pointed out instead that it is about trust on behalf of others to handle the resources given to them with care. Therefore it is the trust that is most important to maintain.

Meanwhile the Head Controller and the Chief of Economics have a more neutral approach towards risk. This neutral approach is described as the product of the strict and heavily regulated risk management. SU receive money to produce a certain services, therefore an objective approach towards risk management is common.

The Head of Activity illuminates a theory that the regular employee at SU does not see beyond the patient risk and therefore might not perceive the concept of risk management in the same manner that the managers do. Furthermore he points out an attitude shift in the managers on the region level from extremely risk-averse towards a more risk positive oriented. To dare to take chances to become better as long as it does not compromise the patient safety. Something that he also mentioned is the phenomenon that some managers' hide behind the patient safety risk when the operation does not work. It might instead depend on the lack of funding or ambitions of evolving by taking risks.

5. ANALYSIS

5.1 Discussion of the empirical result

Our study has shown that both organisations define the concept of risk similarly, but their identification and perception of risks differs. The following figure shows a graphical review of the most important risks presented in the empirical data for each organisation. This graph excludes the risks associated with the patients.

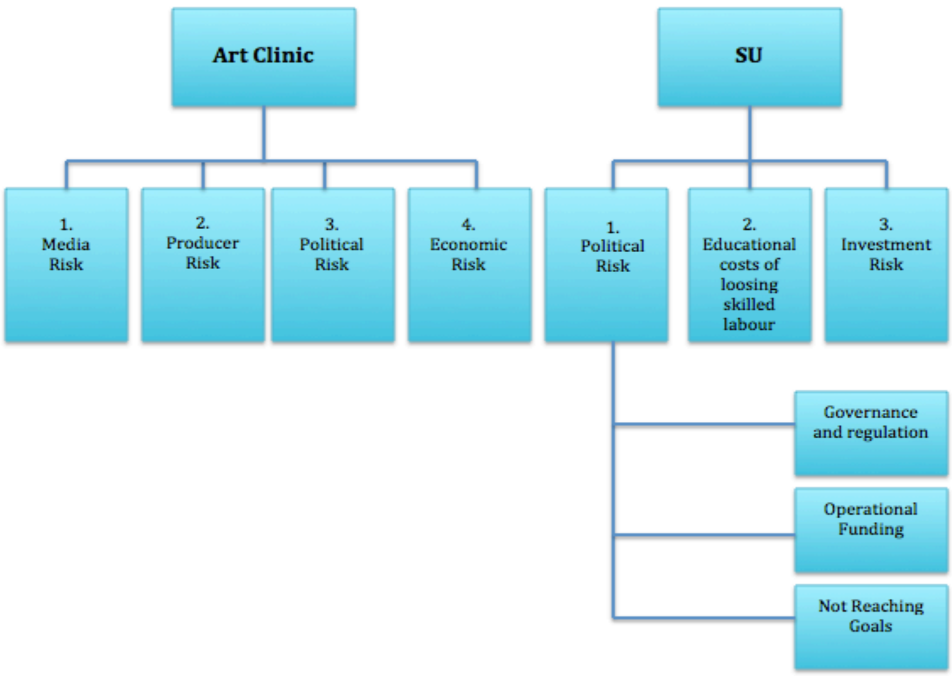


Figure 5.1 *The identified risks by Art Clinic and SU*

The media risk is an external threat that might affect Art Clinic severely. Conversely, SU perceive this risk as irrelevant, since it does not have negative effect on their economy or livelihood. Undoubtedly, the risk of inadequate products delivered from the producers will result in devastating consequences for both companies. Not only economic effects can be expected, it will also have health consequences for all of the affected patients. This will compromise the work with their most fundamental risk: the patient safety. Therefore should this be a concern to everyone in this particular business. Despite these effects that inadequate products might bring, this was not highlighted by SU.

Purchasing agreements are very important to obtain for Art Clinic since it is a source of income. In order to obtain these, there must be a deficient capacity within the public sector. Art Clinic depends in a way in the insufficiency of organisations like SU. One of the risks that SU identified was to be unable to reach their goals, which originates in unrealistic pressure by the political government. Therefore, the political way of governing the public health care might be questioned. To be heavily controlled and restricted financially results in the origination of many risks and obstacles. Questions such as, what to prioritize and focus on become prominent. The politicians, whose leadership or directions might change every fourth year, make these decisions. Furthermore, it places constraints on the creativity and endangerment of their employees. The feeling of not being able to influence the organisation to a desired level differentiates the public sector from all other.

In addition to the political risk that SU defined there is another risk that indirectly affects them. The risk of losing skilled and educated labour to the private sector is not large, but it generates money losses. Employees are educated by experience that SU provides, and as their skill level rise the interest from the private companies increases. The fact is that SU pay the educational price for a fully trained doctor but might not be able to reap the benefits from it. This problem might result in animosity or competition between the public and private sector.

Something that creates common ground between SU and Art Clinic is the desire of regulation within the private sector. SU might have the overall responsibility while sending their patients to other clinics when there is a lack of capacity. Therefore it is in their interest to increase and control the standards of these organisations. On the other hand, Art Clinic desires these regulations because it might benefit them from a financial aspect.

There was no surprise that the economic crisis was brought up by Art Clinic, it does affect their income and stability. If the market fluctuates it will ultimately affect the revenue as well. However, this particular risk is not negative for SU. Lower demand and such do not financially affect them. In fact the demand of essential medical attention will not alter significantly whereas the demand of plastic surgery will.

A distinct divergence between SU and Art Clinic is the way they invest. The process of investing is quicker and somewhat smoother for Art Clinic. This can partly be explained by the difference in governance. Everything SU does must go through several processes, which extend the process time. This might not only affect the investment issues but also other managerial processes. The decision-making process is stagnant within the public sector and might result in serious miscalculations of investments, organisational changes and such. Everything leads back to the way that the public sector is governed and financed.

5.2 Discussion of empirical result and the theoretical framework

Since both of the organisations identified several risks they consequently presented many risk management techniques. The table below contains all of the mentioned risk management techniques from table 4.1 and 4.2. It is categorised into three different types: *Internal*, *General* and *External.* The *Internal* risk management techniques handle risks that come from within the organisation and can be partly controlled or minimized. The *General* techniques are used to handle various operational risks. The *External* techniques are prominently used to forecast external risks and trends that may affect the operational risks both negative and positive. As a result of the collected data there is a distinct relationship between the empirics and the theoretical framework. Especially while comparing the usage of qualitative and quantitative techniques like brainstorming, checklists and sensitivity analysis. Techniques such as these seem to be generally used by both investigated organisations and can therefore be strongly linked to the theoretical framework of this study. However, every company adapts and develop the risk management techniques to fit their particular needs.

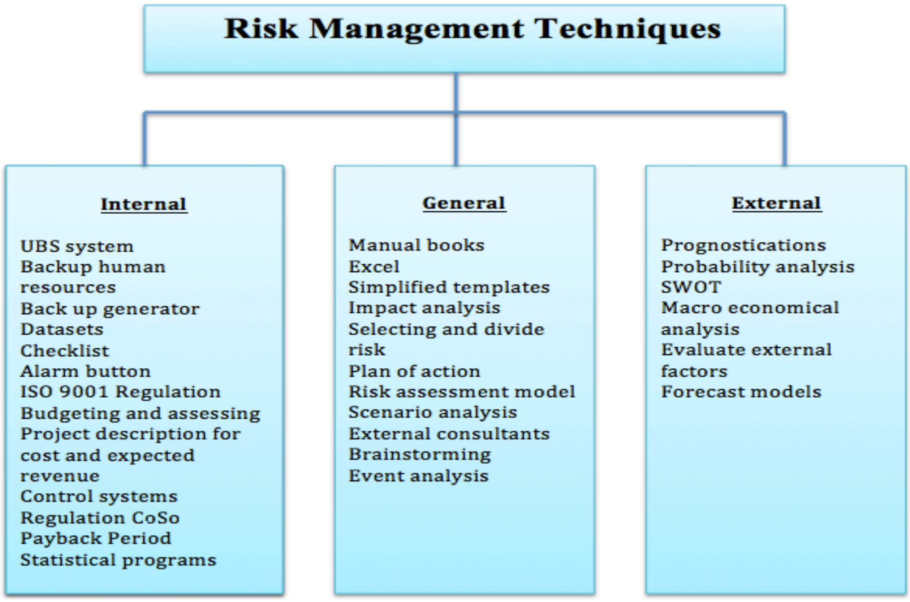


Figure 5.2 *Internal, General and External risk management techniques*

One thing that can be concluded from Figure 5.2 above is that it validates the hypothesis from the article Bodnar et al (2011), which states that most companies use uncomplicated risk management techniques and focuses mainly to manage their most important risk they face. The respondents recognized the simplicity in their tools and each organisation did mention the lack of applicability in theoretical models available. This can also be supported by Shojai and Feiger (2010), which state that no model is yet to be efficient in practice. However, Art Clinic emphasized that these theoretical models have less to do with implementation but rather about understanding the objectives of risk management. A similar statement was made by Millo and Mackenzie (2009), where they stated that it is not about using risk management to be accurate but to use it for it general usefulness. Shojai and Feiger (2010) also stated that the decision-makers should focus on improving their operational infrastructure rather than on a risk management method. Both organisations do identify their internal focus and control as a risk and direct their focus on managing these risks within the company.

The public organisation described that they recently with help from external consultants formulated their risk management strategy. Subramaniam et al (2011) stated that there is a relationship between this approach and producing a positive payoff. As the private organisation has not done this to formulate their risk management strategy, this study does not confirm or deny Subramaniam et al (2011) statement. Because the public organisation is not profit maximization it is difficult to identify the positive payoff or the fact that it can be possible lag until the effect is shown. A reason behind why the private organisations do not hire external consultants to formulate their risk management strategy, might be due to the simple fact that the private organisation has less resources in comparison with the public to do so.

Operational risk is taken with severe caution from both organisations, which is understandable in the health care industry, whereby it is a matter of life and death. However, further measures toward additional risk have not been one of the top priorities in each organisation. Yet both actors recognize the need of improving the awareness and strategy of risk management. This is in contrast to Froot, Scharstein and Stein article (1992), which state that companies and their decision-makers define the word of risk as one of the most important areas a company needs to manage. The empirics show that there is a lack of general apprehension of risk management through the hierarchy within the organisation. One could argue that because a major part of the focus lies solely on patient safety, that other risk seems a bit irrelevant in comparison. For the public organisation it is less about managing risk, but more about managing the consequences of the outcome. Looking at other risk than patient safety there was insufficient risk management before execution of plans. This can partly be explained by a lack of implementation of a consistent risk management in all of the different levels through the company.

5.3 Attitudes towards risk

With the support of the observations made during the interview a speculation can be made on how the attitude differs between public and private sector but also within the hierarchy positions in the company. As the interviewees were asked to speculate the differences the following hypothesis can be made. Because the utility map is difficult to construct, which Sendi, al & Zimmerman (2004) supports, the authors included the observation the interviewees have made in the company.

There is a modest difference between the public and the private attitude toward risk, where there is a more neutral attitude in the public and more risk-loving attitude in the private organisation. This can be explained by the fact that the public organisation is more regulated in a way that they get a fixed amount of reimbursement to conduct surgeries every year, which can as a result in lack of incentive to become more efficient due to the way the budget is constructed. Something that supports this is the article by Hood and Rothstein (2000). Furthermore, they way that the public sector is financed can be connected to the study by Smith and Torft (2010), where they state that there is a constant struggle between the society welfare and the amount of risk taken on by the organisation. The empirics confirm Wu and Olson study (2009) that decision-makers become more risk-averse when dealing with larger quantity of risk. As SU is large at size it will consequently deal with an equally proportional amount of risk making them more adherent toward risk. The public organisation seems to be more risk-averse or in other words more constraint than previously thought. However, scholars like Chen and Bozeman (2012) have based their theories on the likelihood of private organisations to be risk-averse, which is contradicting to the findings of this study where a more risk-loving attitude has been found within the private organisation.

However, a more noticeable difference lies within the companies themselves. In the various hierarchical positions the authors speculate about the reasons of the different attitudes toward risk that the decision-makers have. The attitude toward risk becomes more positive the higher up the hierarchy one goes. The top-level management seem to seize the opportunity more with less regard to the risks compared with managers on other levels. This hypothesis does create further curiosity for the authors due to the fact that the top-level management usually makes the decision that involves more risk than other managers are authorized to do. This also includes that the decision they make is considered a long-term investment. If this is true it means that long-term goals are seized with more risk, but can create extensive consequences in return. This can be supported by an example that Head of Activity at SU made where he explained some of the consequences that can occur of reckless and large investing, for instance it has resulted in deaths before. It is shocking that this might end up in life or death situations. This is evidence that risk management is important.

Additionally something that distinguishes SU from others in the same industry is the way that they define capital such as money. Instead of the traditional attitude that money is entirely hands-on, they see it as capital of trust. Money in their world is fictitious and therefore it is rather a symbol of gained trust from the highest management and the society. Some would argue that viewing capital as an intangible asset would create a more morally accepted decision-making process in regards to the taxpayers' money, which is seemingly preferable in the behalf of the taxpayers.

This hypothesis about the speculated differences with risk attitude amongst the hierarchy in the organisation can be partly be explained by Drottz-Sjöberg (1991) of the perception of risk. Because the perception of risk is based on an individual's own personal view on risk and clarity, it will alter depending on the subject. As a consequence the risk assessment will also alter making the differences more noticeable within the hierarchy. Observations made between the different positions showed weak consensus on what risks are prominent in their business, excluded patient safety, hence the lack of clarity. Therefore, the consensus of which risk assessment techniques to apply are not strongly integrated within the organisation but merely more have evolved from past experience. This can also be confirmed by March and Saphira (1987) whereby their study found a relationship between the hierarchy and attitude. As this study has not intentionally intended to investigate this relationship, the structure of the rapport consequently found itself to find such results.

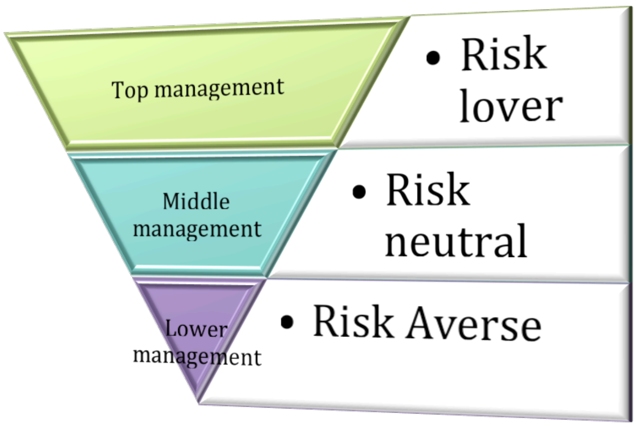


Figure 5.3 *Spectrum of attitudes within an organisation*

The differentiated attitudes of risk may have risen from the dissimilar way that the management defines risk. In the health care industry the lower management mainly focuses on patient risk where the limited amount of risk-taking is preferred. In contrast to this the top management deals with more financial and investment oriented risks, where the room for error is more flexible. Hence, the attitude relies on what risk the individual is mostly affected by and exposed to. However, this spectrum is to a certain extent general and simplistic, and therefore can generate an unfair illustration of the diversification of risk attitude within the company. As lower management handles patient risk that can lead to death, the risk attitude that is displayed to the public cannot be anything other than risk-averse. If this were not the case it would possibly harm the trust that the society has on health care and on the medical responsibility they employers have. Looking at another angle, the top management might not be as risk-loving, as they might want to admit to. The top management in this industry is highly regulated as seen for SU, so for them to be most risk-loving might just be a mere illusion perhaps if compared to other industries. In an industry where trust is their capital and regulation its facility, this spectrum might raise some question.

Keeping this in mind, this spectrum gives an indication on how the most general attitudes are diversified within the company based on the empirics that has been collected

6. CONCLUSION

6.1 Conclusions

Based on this study the authors confirm the existence of a differentiated view of risks between a public and a private organisation. This results in several differences between the organisations considering the managerial approach of risk. They differ when it comes to financing, governance, and regulation standards and to some extent their own personal attitudes towards risk. Consequently, their identified risks are divergent. Based on the finding of this study and the theoretical framework the authors can conclude that both companies use and are knowledgeable in risk management techniques to some degree.

This study has shown that there is a modest contrast in the attitudes toward risk between the public organisation, which has a more neutral view of risk and the private organisation, which seems to possess a more risk-taking attitude. This can partly be explained by the lack of total influence the staff possesses in the public organisation, due to the more rigid governance. They have a contrasting view of money as well. The private sector demonstrates the traditional attitude towards capital whilst the public sector defines it as the capital of trust. In addition to this, as a consequence of the governance and size, the public organisation seemed to have defaulting implementation of their risk management throughout the hierarchy levels. For this reason, it seems that public organisation focuses more on managing the consequence of an outcome than to assess the influencing factors in advance.

Another indication that this study has shown is the differentiated attitudes along the hierarchy within the company regardless of which sector. It is speculated that in spite of the initial view of attitudes there is a spectrum of attitudes towards risk along the vertical line in the company. On one side of the spectrum the lower management who deals mainly with patient risk has a more averse attitude towards risk in contrast to the top management that indicates a more risk-taking attitude. This can be explained by the fact that different management levels handle different kinds of risks. Hence, the attitude depends on how the individual defines risk. Due to the differential attitudes within the company a more simplistic and basic risk management techniques are preferred in both organisations. Furthermore, the managerial approach is assumed to be quite similar because of the diminutive differences in attitudes between the companies.

6.2 Practical and theoretical contribution

This study contributes with insight into two organisations within Swedish health care and their approach towards the concept of risk management. This new insight of their attitudes towards operational risk within each organisation and its' effect on their managerial approach towards risk management may confirm and strengthen some previously made conclusions elsewhere. As a result, it confirms the existence of similar attitudes towards risk across several industries and countries. The study therefore provides additional information to the theoretical field. This study does also supply supporting knowledge for the practical field. The practitioners can by reading this study maintain important guidance and knowledge in this seemingly tricky area and consequently establish basic understanding of the concept of risk management.

6.3 Recommendations for further studies

Further studies are recommended to investigate the conjecture of a relationship between position in hierarchy and attitude towards risk. Additionally, it would be interesting to be able to establish if and why the general knowledge and perception of risk management is rather low within the healthcare industry. Furthermore, as this report concluded minor differences between the sectors regarding the general attitude toward risk it is also recommended to continue the study of these differences to be able to make a solid conclusion based on stronger evidence.

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APPENDIX 1 – Interview questions

Interview questions to the private organisation

• How do you define risk?

• What types of risk would you say that you face in your business?

• How do you see the risks that affect your financial decisions?

• How would you describe your approach to managing risk here at Art Clinic?

  - Do you describe this approach with any special name, picture or similar?

• How much time and focus you have on the financial part of the risks that exist in your organization?

• Do you have any particular entity, individual, department, groups that are involved in your risk management?

• Do you think there is a difference especially if it is a private or a public company?

• How do you think your approach to risk is: do you see the benefits of that are addressing risks to improve the overall outcome or do you feel you would rather avoid risks?

• Do you think that this approach generally applies to your organization?

Interview questions to the public organisation

• How do you define risk?

• What types of risk would you say that you face in your business?

• How do you see the risks that affect your financial decisions?

• Do you share the different types of risk within various departments/management groups?

• How would you describe your approach to managing risk here at SU?

  - Do you describe this approach with any special name, picture or similar?

• How much time and focus you have on the financial part of the risks that exist in your organization?

• Do you have any particular entity, individual, department, groups that are involved in your risk management?

• Are there any special rules for this or is it optional?

  - If yes, what and why that?

• Do you think there is a difference between a private and a public company?

• How do you think your approach to risk is: do you see the benefits of that are addressing risks to improve the overall outcome or do you feel you would rather avoid risks?

• Do you think that this approach generally applies to your organization?