



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

Handling the Crisis: The Rise of Risk Management?



GETINGE
GETINGE GROUP

Vitrolife 

Bachelor Thesis in Business Administration
Management Control
Spring term 2015

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Tutor: Olov Olson

Summary

Degree project in Business Administration, University of Gothenburg School of Business, Economics and Law

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Title: Handling the Crisis: The Rise of Risk Management?

Introduction: The crisis in 2008/2009 was severe and had a big impact on many companies around the world. Management control was one factor that was affected and this reports aims to look into how it changed. Throughout our research we kept coming into contact with risk management as something that has become more important in research in later years. We wanted to know how risk management is related to the crisis and its effects on management control, which we found to be an interesting and unexplored field of study. Therefore this report will be oriented towards risk management.

Purpose: The purpose of this report is to study how the financial crisis of 2008/2009 affected large Swedish companies and particularly their management control. We want to look into how management control has developed in the wake of the crisis and particularly focus on the perceived increase of focus on risk management and how Swedish companies approach risk.

Method: In order to fulfil our purpose we had to choose a few companies to study. We chose Cybercom Group, Getinge Group and Vitrolife Group, which are large, publically noted, international companies that have offices in Gothenburg. In order to study our selected companies we interviewed representatives from our three companies and studied their published annual reports from 2008, when the crisis hit, up until today. This would allow us to make comparisons between the companies' financial situations, management control and their risk management. We also compared our findings to previous research done in the fields of management control and risk management.

Empirical Evidence: We found that the three different companies had been affected differently and to varying degrees by the crisis. We were also given some insight in their differences in management control and their approaches to risk, allowing us to make comparisons.

Analysis and Conclusion: By comparing our gathered information with the existing research, we reached three main conclusions about our studied companies. Firstly we could see that the increased focus on risk management in literature can be seen in practice as well, although risk management is not yet fully implemented in our companies. Secondly we found that the process of implementing risk management in a company can be seen as a ladder. The step of the ladder a company is currently standing on can be used to classify how far a company has come in its implementation of risk management. The final conclusion we drew was that management control and risk management appear to be closely linked in practice; that risk management can be seen as a part of the management control package.

Possible further research: Larger studies concerning risk management with more companies in order to be able to draw more general conclusions and to see if our theories can be confirmed.

Key words: Financial Crisis, Management Control, Risk Management

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1 Introduction

In 2008 the most severe and long lasting financial crisis since the Great Depression of the 1930s struck the world (Stutz & Warf). It affected most parts of the world and Sweden was no exception. What caused this crisis has been much debated with many different opinions, but is generally thought to be a mixture of factors (Van der Stede 2011). One example of possible causes comes from Crotty (2009) that suggests in his article ‘Structural causes of the global financial crisis: a critical assessment of the ‘new financial architecture’ that the crisis was caused by deregulation and globalization of financial markets combined with swift financial innovation and the moral hazard caused by numerous government bailouts.

Regardless of which combination of causes that created this crisis it had a very big impact on many companies. One of the effects we wanted to study was whether companies changed how they worked with management control. When we looked in to this we found these changes a still quite unexplored area of research. Since there now has been a few years since the crisis we can more clearly see what changes the crisis brought with it. Therefore we wanted to study a few companies and how they have changed after the crisis, specifically regarding their management control. Since the subject has previously not been thoroughly researched we hope to help lay the foundation for further studies regarding management control after the crisis.

By interviewing three companies located in the Gothenburg area we wanted to gain more information about the changes of management control in practice and contribute to the discussion in this field of research. The relatively small scale of this study prevents us from drawing truly general conclusions, but it can still give interesting information as to how the crisis had an effect and how management control has changed.

During our study we noted, both through our contact with companies and through reading literature concerning the crisis and management control, that risk management was an area that has received increased attention by companies after the financial crisis. This is mentioned by Van der Stede, one of the few to have presented studies of changes in management control brought on by the crisis. In his article, called ‘Management Accounting Research in the Wake of the Crisis: Some Reflections’, risk management is one of the areas that have been actualized the most since the crisis. We found risk management to be a fascinating subject and as our study progressed we found ourselves increasingly focus on that area and how it can be connected to management control. Has the crisis been the wakeup call for the rise of risk management in practice as well as theory?

1.1 Purpose

The purpose of the report is to answer how the financial crisis impacted the management control and the risk management of large Swedish companies. We want to see if there are any prevalent changes and if we can confirm that they are related to the crisis. We also want to discuss if and to what extent the management control and risk management fields are connected and if the crisis has contributed to any changes in the relationship between these two areas of research in practice. Since our study focuses on three companies it is a smaller scale study. Our hope is that we may come up with some theories that could be used as the base of further studies.

1.2 Research Question

How has the concept of risk management developed after the financial crisis and has it become more prominent in companies management control decision making processes?

1.3 Disposition

After this introduction the report will continue with a frame of reference describing some of the previous research and empirical studies in management control and risk management as well as description of the frameworks used, ending with our own analysis model for this report. Then the method section will be used to describe how we gathered the information and the reasoning behind our choices. After that we will present our gathered empirical evidence from interviews and annual reports which we will then analyze and finally draw conclusions from, in the final sections of this report.

2 Frame of Reference

In this chapter we will present some existing theories and a previous empirical study regarding management control and risk management. We focus on management control packages, changes in management control, as well as the development of risk management and how these connect to the financial crisis. At the end we will present our basic model for analysis.

2.1 Management Control

2.1.1 Definition of Management Control Systems

One of the things we focus on in this report is management control changes; however we must first specify what management control is. Management control can be defined in a number of ways. The inconsistencies in how Management Control Systems (MCS) have been defined have created problems when it comes to interpreting research results concerning the design of MCS (Malmi & Brown, 2008).

We use the article ‘Management Control Systems as a Package—Opportunities, challenges and research directions’ by Malmi and Brown (2008), where management control systems are defined as “a broader term that encompasses Management Account Systems (MAS) and also includes other controls such as personal and clan controls”. MAS is “a systematic use of MA to achieve some goal” where MA is short for Management Accounting which is only vaguely defined as a “collection of practices such as budgeting or product costing”.

2.1.2 MCS Packages

In their article, Malmi & Brown (2008) also emphasize the difference between decision-making and control. If there are no follow-ups on a subordinate manager’s behavior then it is only a decision support or information system, not a control system. This distinction as well as Merchant’s definition of management control is used when they create their MCS package which we will use when analyzing our chosen companies. The MCS package typology has five different types of control:

1. Cultural controls
2. Planning controls
3. Cybernetic controls
4. Reward and compensation controls
5. Administrative controls

It is important that the typography is quite broad because otherwise you might overlook controls in your studies or important connections between the controls. In this model the cultural controls are the broadest type of controls. They provide a contextual framework. On the opposite end we have administrative controls which create a structure in which the other types of controls – planning controls, cybernetic controls and rewards and compensation controls – take place. These five different types of control can in turn be broken down into components (figure 3.1).

Cultural Controls						
Clans		Values			Symbols	
Planning		Cybernetic Controls				Reward and Compensation
Long range planning	Action planning	Budgets	Financial Measurement Systems	Non Financial Measurement Systems	Hybrid Measurement Systems	
Administrative Controls						
Governance Structure		Organisation Structure			Policies and Procedures	

Fig. 2.1: *Management Control Packaging* (Malmi and Brown, 2008)

It is important that you do not regard all of these management controls separately. They are part of a system and interact, which is why we choose to look at them as a package.

2.1.3 The Financial Crisis and its Effect on Management Control

This study will focus on the financial crisis that arose around 2008-2009. It is considered the most severe and long lasting financial crisis since the Great Depression of the 1930s (Stutz & Warf). There has been a great deal of discussions around what caused the crises. According to Van der Stede there was not one single cause to the crisis but a “combustible mixture of factors” that contributed to the financial decline.

There has only been a small amount of research done on the subject of how the financial crisis have affected and changed management control. One of few who have written about it is Van der Stede. In his article ‘Management Accounting Research in the Wake of the Crisis: Some Reflections’ (2011) he draws some main conclusions about how the financial crisis affected management control.

Firstly, the sharing of information within the company increased. One of his main points is that the crisis led to an increased demand for disclosures in areas relevant to management accounting. Furthermore Van der Stede (2011) mentions budgeting and planning as an area which was affected by the crisis, incentives where the crisis led to more disclosure and regulation, and also a change in risk management which we will discuss further on in this report.

2.1.4 Change in Management Control

To see which changes have been made in management control we first consider the concept of change. According to an article by Burn & Scapens (2000) management control change is a process rather than an outcome.

There are different types of change and Burn & Scapens (2000) describe three dichotomies to classify them. We only discuss the two dichotomies that have been relevant to this study. The first is formal versus informal change. Formal change means that a decision is made consciously, while informal change happens at an implicit level and often happens more gradually. The second dichotomy is revolutionary change versus evolutionary change. A revolutionary change expresses a vital change to the existing routines and institutions while evolutionary changes happen step by step and does not disrupt routines and institutions as much.

2.2 Risk Management

Risk management is one of the key themes in the article by Berry et al. called “Emerging themes in management control: A review of recent literature” (2009). The article discusses the desire to measure and manage risk has increased in recent times and draws a connection to the British company Tesco Plc; which made risk management a part of their Balanced Scorecard. The Balanced Scorecard is a tool within Management control to measure a combination of short-term leading indicators within the company (Merchant 2012). Berry et al. (2009) further argued that risk management practice using statistical data for calculation is very uncommon, and most companies rely on frameworks for risk management to be able to measure and account for risk by estimating the likelihood of certain events and the cost they would bring. These frameworks have received some critique for being simplistic and lacking, something we will go further into later in this study.

2.2.1 Risk Management in General

2.2.1.1 *What is Risk Management?*

Risk Management is a process within companies where the company has to be aware of the amount of risk it is actually carrying in order to not succumb to default during tough financial times. “As long as a company operates in a business that promises more than the risk-free rate, there will be some risk of falling into financial distress.” (Nocco & Stulz, 2006). In order to avoid this financial distress overwhelming the company, companies need to stock up on equity capital, but a functional risk management process allows the company to reduce the buffer of equity needed to handle the financially rough times. Risk Management within companies is usually referred to as ERM, Enterprise Risk Management.

In the article “ERM in theory and practice” Nocco and Stulz (2006) discuss the value of ERM for companies. An important part of risk management is being able to determine the right amount of risk for the company. Nocco and Stulz argue that most companies are looking to produce high returns for its investors, thus completely minimizing risk is not an option for the company. That would mean investing in low yield and almost risk-free bonds. The main goal of risk management is instead to optimize the company’s risk by evading the risk for large economic losses while gaining increased returns by taking on some amount of risk. They argue further that the concept of ERM is straightforward, but the implementation complicates things. Managers have to use ERM as a tool and incorporate it throughout the entire organization in order to achieve the benefits connected to the process.

2.2.1.2 What are the Advantages to Implementing ERM?

Nocco and Stulz (2006) divide the advantages of ERM into two categories, the macro level and the micro level.

On the macro level ERM helps the senior management to deal with trade-offs concerning risk and return. The most important problem with risk is not the temporary decrease in cash flows to the company during financial struggle; the major problem is the loss of investment potential within the firm which can have permanent effects on the success of the company. Having risk within the company is necessary to be able to provide returns higher than a risk-free rate, but it is difficult to decide how much risk and what kind of risk should be held (Nocco & Stulz 2006). For instance a business growing rapidly may not be able to hedge funds to cover financial losses caused by risk. At the same time it cannot ignore risk entirely. The senior management for the company undertaking such growth must understand the risks associated; else it probably should not proceed with the project (Nocco & Stulz 2006).

On the micro level a well-designed ERM system helps operating managers and employees to consider the risk-return trade-off of their choices, which is essential for risk management in practice. Any projects taken on within the company will have to provide a proper return on capital invested after accounting for the costs associated with risk, thus increase in risk has to be compensated with larger returns on capital. If risk is ignored in the operational divisions, high-risk projects are usually favored over others even if the returns do not cover the increased risk for the company. ERM serves an important purpose in these considerations being made on the operational level, as it is not feasible for any larger company to centralize individual project decisions (Nocco & Stulz 2006).

2.2.2 ERM Frameworks

A number of frameworks exist to help implementing risk management in entire organizations. The most prominent ERM framework is by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), but due to risk management being a young field many argue that this framework needs a great deal of work in order to be useful for managing company risk on all levels. Michael Power (2009) states that: “ERM is not a single thing, conceptually or practically.” The concept of risk management within firms is much more complicated than any current single model of implementation could factor in.

Power (2009) considers the current popular frameworks, such as COSOs, to have some serious flaws. Firstly, that the frameworks assume that the level of risk within a company can be rationally determined by senior management and that all divisions interpret this in the same way. Secondly, that the frameworks approach to be applicable throughout entire organizations has made them too general and no longer very useful for the individual parts of the company. Lastly, that the current frameworks are too focused on organizations as lone entities, when in reality “no company is an island”. The fact that companies are very dependent on outside effects is according to Power not properly reflected in the currently used ERM frameworks.

In essence we can assume that while the COSO ERM framework is the most popularly used one for implementing ERM it is far from perfect and ERM is still in an early stage of development which allows new approaches and perspectives to reveal themselves. However, despite the critique given to the existing ERM frameworks, Van der Stede (2011) argues that they are useful. The important thing is that you take action to deal with risk, not that the model used is perfect.

2.2.3 Development of Risk Management and the Connections to the Crisis

In his article “The risk management of everything” Michael Power concluded that, based on his research of business journals over the last decades, risk management as a topic did not appear regularly until the middle of the 1990’s. There is mention of auditing risk models dating back to the 1980’s, but risk management as a concept is still fairly young. However; “In the corporate sector more generally, risk management has become perceived as integral to business strategy and to value creation.” (Power 2004)

In the article “Management accounting research in the wake of the Crisis” the increased importance of risk management is apparent (Van der Stede, 2011). He mentions how there is an increased motivation to research risk management for management control purposes. Risk management is described in the article as “the area that has come most to the fore in the wake of the crisis”, while also pointing out how comparatively little is known from research on the subject. Van der Stede emphasizes how risk management is comprised of not only internal control systems, but also the structure and culture of companies affect risk management effectiveness. These factors control how risk management is embraced by the organization itself and if the general approach to risk will be that it affects everyone or a select few.

2.3 Empirical Study

ERM is still in a developing stage and important knowledge gaps remain – in practice and in theory. The high relevance of risk management at this time should put it high on the agenda for accounting research (Paape & Speklé 2012).

Paape & Speklé’s (2012) article “The Adoption and Design of Enterprise Risk Management Practices: An Empirical Study” explains ERM and describes the current ERM practices. It also explores the relationship between ERM design and perceived risk management choices.

“ERM differs from traditional conceptions of risk management in its enterprise-spanning aspirations and in the adoption of a holistic approach in which strategic, operational, reporting, and compliance risks are addressed simultaneously rather than separately.” (Paape & Speklé, 2012)

The following questions are answered using data from different organizations at different stages of ERM implementation. The companies are mixed large scale enterprises and small and medium sized enterprises. (Paape & Speklé, 2012)

1. Does application of the COSO ERM framework contribute to risk management effectiveness?

The 2004 COSO report is generally viewed as the most authoritative ERM framework. One would expect that it improves risk management effectiveness, but empirically this is still open for debate. The view on risk management is highly mechanistic within ERM, but it is uncertain whether this view is realistic and practicable. COSOs very traditional perspective of rational agents goes against years of behavioral studies.

2. **Is the frequency of risk assessment associated with risk management effectiveness?**
There are problems with frequency of risk identification and keeping up-to-date with risk management decisions. COSO does not mention a minimal frequency of risk identification necessary to ingrain risk management within the organization, but the study does reach the conclusion that a minimum probably exists and should be communicated during implementation.
3. **Does engagement of lower levels of management in risk assessment contribute to risk management effectiveness?**
ERM does not specify how far down one should go, but states that ERM is everyone's business and it makes sense from both a shared responsibility point of view and because middle managers enjoy an information advantage on the specifics of the business.
4. **Does the frequency of risk reporting positively affect risk management effectiveness?**
The process of risk reporting requires relevant, timely and reliable information, causing ERM-implemented organizations to invest in information systems to support their risk management. COSO argues that ongoing monitoring is superior to be able to assure timely response to problems. The study conveys that a higher frequency of reporting is valuable and can improve the quality of risk management within the organization.

2.4 Our Model

We aim to use the connections that can be found between management control, the financial crisis and risk management and see how this relates to our studied companies. This will allow us to draw conclusions on how management control and particularly risk management has evolved during and after the financial crisis of 2008. We will compare the findings made by Van der Stede to what we find in our three examined companies, while using Malmi and Brown's model to look at management control as a package, to decrease the risk of drawing the wrong conclusions because we missed important factors. When looking at risk management within our studied companies we focus on the implementation process and if any ERM frameworks are used, as well as which levels of the company use them. Finally, we want to explore whether risk management and management control have become more interconnected in practice in the way they appear to be in theory.

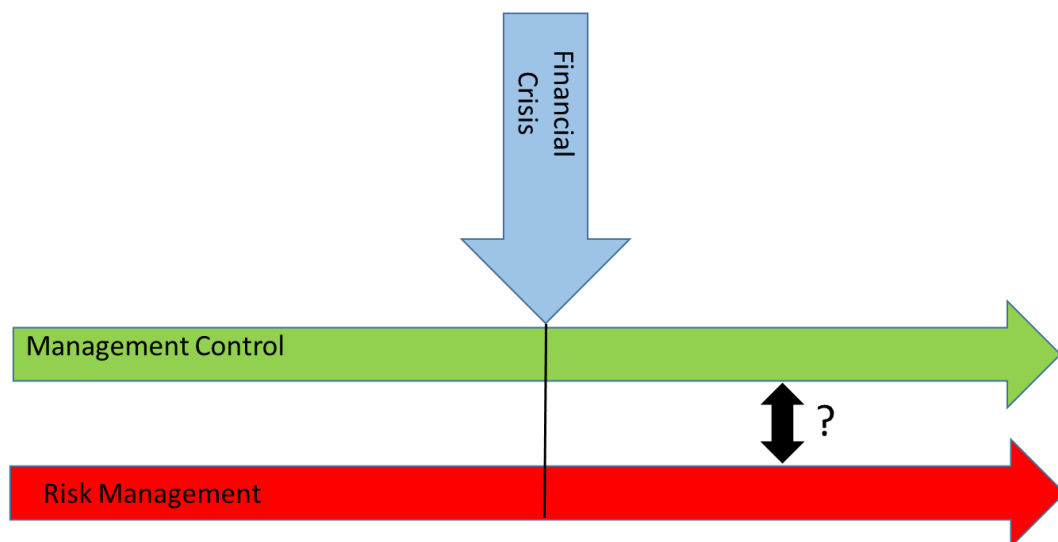


Fig. 2.2: Our Model

3 Method

In this chapter we will describe the process of our study, and the decisions that were made regarding everything from the choice of information sources to how to analyze our frame of reference. Patel and Davidsson (2011) claim that the chapter should include any pre-studies made as well as a thorough description of the interviews, everything from how we got in contact with the companies to how the interviews were conducted, and thus we follow their guidelines.

3.1 Introduction

We wanted to look into how management control developed during the years during and after the crisis, so we started surveying articles and stumbled upon the research subject risk management. It appeared to us that risk management was a concept within control that was on the rise in research theory and something we wanted to look into. The importance of risk management was enforced when we did a pre-study and contacted Karin Henriksson, a management consultant that works at Business Region Göteborg as well as having her own consulting company, in order to survey what companies had been requesting help with during the years following the crisis. We were told that risk management had been something that many companies sought help with, and there appeared to be an increased demand to manage risk within the companies she had professional contact with. We were fascinated with this subject that appeared on the rise both in theory and practice and decided to study if risk management had become an important part of management control in the wake of the crisis.

Due to the fact that there is so little research on both risk management and management control in the years following the crisis (Van der Stede, 2011), our study is an exploratory one to find out the development of risk management, and its relation to management control, after the crisis. In order to do this we look into what has been written about risk management and management control, both before and after the crisis, and we also chose to interview a few companies in the Gothenburg area in order to get some information about how the companies handled the crisis directly from the primary source.

3.2 Information Gathering

Knowing that the amount of articles written about risk management and management control relating to the crisis is very low; we decided to base our study on a frame of reference consisting of a few articles from the foremost journals within the field and a few other articles with plenty of citations. This was in order to base our study on the most generally accepted theories within management control and risk management.

In order to study the theories presented in the articles we chose to interview a few publicly noted Swedish companies, and ask them about their evolving management control as well as whether or not they have an established risk management process. In addition to the interviews we decided to look into the annual reports of our chosen companies in order to see how well the information gained from the interviews is communicated out to the public. To gain an appropriate time perspective and be able to find patterns related to the financial crisis we decided to look at annual reports from the years 2008 through 2014. But before we could gather information about the companies we had to start by defining which types of companies to include in the study so that we could contact them for interviews and access their annual reports. In addition to the interviews and annual reports we did look through the official websites of the companies for any relevant information relating to our study.

3.3 Choosing Companies

We decided to focus on companies that are considered large by the definition of the Swedish law for annual reporting, Årsredovisningslagen (ÅRL). The reasoning behind this is that larger companies tend to have more resources which mean that they are more able to develop and change their management control. Merchant and Van der Stede (2011) also point out that larger companies usually have experienced different management control systems over time, which should allow us to observe the development. Also, since risk management is still a field in early development, we assumed that large companies would be faster to pick up these thoughts in their management control.

In addition to the companies being large, we needed the companies to have been active both before and after the crisis so that we are able to assess any important decisions made within the company regarding risk management and management control. We also wanted our contacts to have been working within their companies during the years of the crisis, or at least be well aware of the decisions made during this period by the companies. A final meriting factor was that the companies to some extent manage risk.

After contacting a number of companies we eventually had three companies to study, Getinge Group, Cybercom Group and Vitrolife Group. Of these companies we had the opportunity to talk to the CFO's of Vitrolife and Getinge, and an Executive Controller for Cybercom.

3.4 Our Contacts

3.4.1 Ulf Grunander

Ulf is the CFO of Getinge Group. He has been the CFO for Getinge since 1993, a position he took after working as an advisor to Carl Bennet, the main owner of Getinge. He is responsible for everything concerning the economy and IT within the company and as well as few operative areas. Ulf was kind enough to answer on our e-mail and agreed to let us interview him about Getinge's Management Control.

3.4.2 Lovisa Gyllenhammar

Lovisa is an executive controller for Cybercom Group and has been at the company since 2008. We contacted her on her phone and were able to book a meeting at her office in Cybercom the following week.

3.4.3 Mikael Engblom

The CFO for Vitrolife Group since 2011, Mikael Engblom, also responded to our e-mail and agreed to have a short meeting with us to discuss the company's management control, which he is in charge of. He has been working with the company's financial department since 2007.

3.5 The Interviews

The interviews took place at the sites of the different companies, and where roughly 45 minutes long on average due to the tight schedules of our contacts. We also asked complementary questions later via e-mail.

Getinge Group: The interview with CFO Ulf Grunander was conducted at the Getinge Group headquarters in Gothenburg on the 10th of April 2015

Cybercom Group: The Cybercom interview with executive controller Lovisa Gyllenhammar took place in the Gothenburg Office for Cybercom Group on the 14th of April 2015.

Vitrolife Group: CFO Mikael Engblom invited us to Vitrolife's Headquarters in Gothenburg for the interview on the 22 of April 2015.

The interviews were semi-structured, which means that we prepared general questions for all the companies. These would be completed by follow-up questions if necessary. This structure allowed us to be able to have some control on the topic at hand so that we were able to make use of the time provided by our contacts, while also allowing them to tell us everything they wanted us to know on the topics discussed. As we did not have much time to conduct interviews we had to keep a simple structure, which looked like this:

- A short introduction of the company
- A few questions about the current design of the company's management control
- The effects of the crisis on the company
- A discussion of changes made to management control in the wake of the crisis
- The company's view on risks and how the company manages risk
- How the company's outlook is for possible future crises and what experiences they have gained from the last one.

3.6 Comparisons

After conducting these interviews we need to be able to compare the data we have obtained in order to draw some conclusions. We wanted to be able to compare and analyze the companies based on these factors:

- The different effects the crisis had on our three studied companies, financially and regarding the development of their management control.
- How well the companies' approaches to risk match the theoretical frameworks for risk management and how the practical implementation of risk management works in our companies.
- The development of risk management and how it relates to management control within the companies during and after the financial crisis.

4 Empirical Evidence

In this section we will present the empirical evidence gathered from the interviews with the companies' representatives as well as our study of the companies' annual reports. We will divide the information gathered into three sections: the Economic Development, Management Control and Risk Management.

4.1 Cybercom Group

4.1.1 Introduction

Cybercom Group is a company that works to provide information and security within IT and also to help companies with communication by developing new connectivity systems. Cybercom Group is a small-cap, publically noted company and in 2014 they had 1307 employees and their net sales were 1262.9 MSEK. Founded in 1995, the company and has been listed on the NASDAQ OMX Stockholm exchange since 1999. Their organization is divided into five regions: Sweden Northeast, Sweden Mid, Öresund, Finland and International, where Öresund besides the south of Sweden includes Denmark and the International section includes Singapore, Dubai, Poland and India.

4.1.2 Economic Development

4.1.2.1 Annual Reports (2008 – 2014)

Looking in the annual reports from the last seven years we can follow Cybercom's financial development. We chose to focus on net sales and results since those are good variables to measure the financial success of a company.

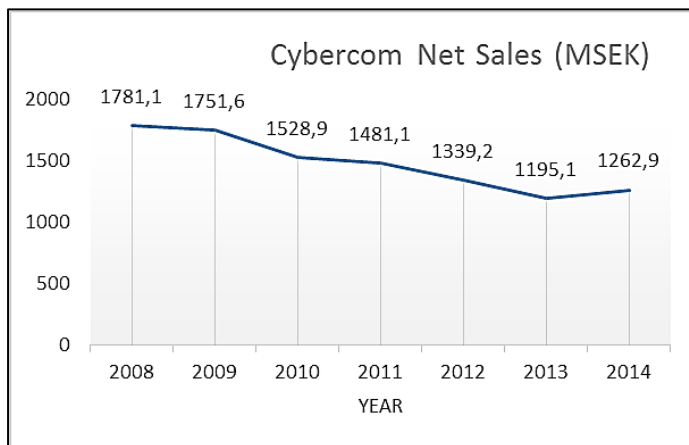


Fig. 4.1: *Cybercom net sales over the years (Cybercom Annual Reports, 2008 – 2014)*

Looking at the net sales we can see that Cybercom has struggled financially since the crisis. The sales decreased every year from 2008 to 2013, so the first positive development in a long time was when the sales increased in 2014 (fig. 4.1).

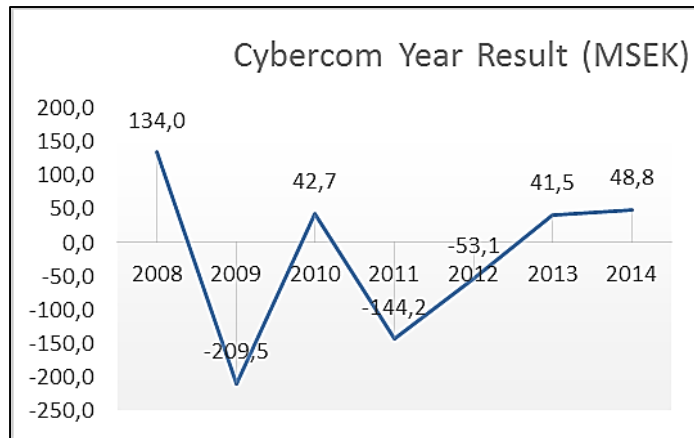


Fig. 4.2: Cybercom year results over the years (Cybercom Annual Reports, 2008 – 2014)

The financial result has varied greatly during the years after the crisis hit due to many different factors. The crisis has likely had an effect as well as depreciation and poor acquisitions. In 2009, 2011 and 2012 Cybercom had a negative result (fig 4.2).

4.1.2.2 The Interview

In January 2008 Cybercom acquired the finish company Plenware. Plenware was severely affected by the crisis and Lovisa Gyllenhammar tells us that in hindsight this was not a good purchase for Cybercom. However, Plenware has been restructured and is currently doing better. Volvo was another company affected by the crisis causing them to reduce their demand for Cybercom's services, making it so their financial troubles affected Cybercom as well.

When we asked Lovisa Gyllenhammar specifically about the crisis 2008-2009 she said that, apart from the financial losses due to the acquisition of Plenware, Cybercom had been relatively little affected. She credited that to Cybercom being a consulting company. Lovisa said that a crisis first affects the consumers, then the business to business companies and finally consultants like Cybercom that sell their services to business to business companies. Sometimes being a consulting organization can even be a benefit in a recession, because some companies are more inclined to hire consultants instead employing their own staff in order to avoid layoffs.

When we asked Lovisa Gyllenhammar how much of Cybercom's economic decline during the crisis that was due to the acquisition of Plenware she said that that was very hard to estimate. She also said that some of the negative result in the recent years has been due to depreciation of goodwill and not only to the operative results.

4.1.3 Management Control

4.1.3.1 Annual Reports (2008 – 2014)

In the annual reports you can read about Cybercom wanting to become more integrated, focused and balanced. They put a great deal of importance on having employees with the right skills and enthusiasm. They also focus on sustainability and ethics and have a code of conduct that they review annually.

The board established long-term targets and guidelines for Cybercom in 2011.

Some examples of financial goals are:

- Profitability - Cybercom shall be one of the more profitable companies among its closest comparable competitors and achieve an EBIT margin of 10%.
- Growth - Cybercom shall strive to achieve growth of 10% annually over the business cycle.
- Acquisition policy - Organic growth and profitability are the key objectives for Cybercom, but selective acquisitions that create value will be assessed against this strategy.

Some examples of operational goals are:

- Client portfolio - Achieve a balanced client portfolio with 30% of sales from telecom, 30% from the public sector and 30% from manufacturing industry.
- Client base - Broaden our client base so that our ten largest clients account for no more than 35% of sales and so that no single client accounts for more than 15% of sales.
- Sustainable business - Increase the amount of sustainable business with our clients.
- Business ethics - High ethical standards. In December, Cybercom launched its internal certification in anti-corruption and the code of conduct.

4.1.3.2 *The Interview*

Lovisa Gyllenhammar tells us that a great deal have happened these last few years in Cybercom. Cybercom Group has come together from several different companies. This led to them being decentralized, but they have worked towards being more ‘integrated and interacting’ these last few years. She also says that they have a more clear strategy now than they have had before.

The overall strategic goals are set at corporate level. These are quite broad and have to be processed and concretized at a regional level. All individuals have to work in the same direction so Cybercom use work force planning. Work force planning concerns both the recruitment process as well as the development plans for the existing employees and since Cybercom is a consulting business they prefer to hire people that fit well with the company’s strategies.

Moreover Cybercom has worked toward making their business portfolio (what they do and what they sell) more focused. It has been very fragmented and now they want their consultants, who are in contact with the clients, to recognize that what they do is in line with what the company says it does. The consultants should focus on fewer things and not take on requests from clients that are not in line with Cybercom’s strategy. This also means that they try to work better together with the other regions to offer clients a more cohesive package. Lovisa Gyllenhammar goes on to say that this is a part of what they call footprint. They try to sell solutions – a complete package of products and consulting. Different units that are specialized in different areas work together so that they can leave a broad footprint at the client and benefit from their connectivity. This cooperation between units has become much better in recent years.

Another big change that has been made the last years concerns the budget. Cybercom has gone from having a yearly budget to making two budgets per year. They saw that if they did not manage to stay within the budget for the first six months when they used a yearly budget, they were bound to be unsuccessful the following six months as well. This almost made the budget useless towards the end of the year. To try and change this Cybercom tested using forecasts, but that only helped to tell the company how much they deviated from the budget. Now Cybercom is making a new budget every six months which makes it easier to stick to and the employees feel like the goals they are given are possible to achieve.

Lovisa goes on to tell us that Cybercom also works with a Balanced Scorecard. They break down their strategy into goals for the different region, for example Mid had the financial goal of increasing the profitability to 12 %. Customer satisfaction is also measured. It is very important since most of Cybercom's sales come from existing clients and their core business. Another example of what they include is way of working. Efficiency is important and Cybercom also want simplicity to be something that permeates the whole organization. Lovisa says that the management control should be quite simple so that most people can understand it. It does not matter if a controller thinks up new smart ways to work if it cannot be understood throughout the organization. To work against these goals Cybercom are developing dashboards that are meant to give the managers an overview and not go into too much detail when it is not needed. Cybercom also work with Key Performance Index (KPI). It is the KPI that can be seen on the dashboards mentioned earlier. The KPI are determined from Cybercom's overall strategy.

4.1.4 Risk Management

4.1.4.1 Annual Reports (2008 - 2014)

In Cybercom's financial report in 2008 they divided their risks into three different categories; operational risks, market risks and financial risks.

As an operational risk Cybercom mentions is major customers. In 2008 they had a relatively small amount of customers where 10 companies accounted for 63 % of Cybercom's sales (this has improved since 2008); however they try to distribute the risk among these companies as well as distribute the risk within the Cybercom group. Another operational risk is competition and price pressure. Cybercom consider the market of offering business-critical solutions in mainly telecom and selected technologies to be a highly competitive market. It is a market that is constantly changing. They also name frame agreements as being an operational risk. Frame agreements are an agreement between a customer and a supplier and Cybercom has one with all its major customers. To reduce the risk of these agreements not continuing they try to maintain a dialogue with the customer and to deliver high quality. A fourth operational risk is capacity utilization. Most of the revenue comes from sold consulting hours so the risk of demand decreasing is important for Cybercom. To reduce this risk Cybercom tries to ensure that they have the consulting skills to meet the demand. The final operational risk they mention in the financial report of 2008 is the risk concerning the employees. Since Cybercom is a service company the motivation and skills of their employees are of great importance. To reduce their employee risk they work to ensure job satisfaction, and with training and recruiting activities.

One market risk they list is structural changes. Many of Cybercom's customers are large international customers who want to work with large international suppliers. Cybercom therefore work toward greater internationalization. The other market risk they mention is the economy. The recession had impacted the demand for IT services and to minimize the impact on the company Cybercom wrote that they reviewed the cost structure and how much they depend on individual customers and markets.

The last category of risk is the financial risks. In the report from 2008 they mention that their risks increased when they acquired Plenware. Cybercom has identified five kinds of risks that may affect the results; they are liquidity and financing risk, interest rate risk, market risks, currency risk and customer credit risk.

In the years after 2008 the description risk and risk management in the financial reports has somewhat changed. In 2009 they rephrased some of the risks in the operational risk category. The biggest change they made is that they no longer included competition and price pressure as a risk; instead they talked about changes in ownership as a potential risk.

In 2010 the risk and risk management part of the financial report was largely the same as it was in 2009, but in 2011 they changed it slightly. They mention price level and customer contracts instead of frame agreements. Bank contacts are also listed as a risk and they have removed changes in ownership from their list again.

In 2012 they changed it slightly again to a format that is still used today. They now only divide the risk in two categories: market and operational risks, and financial risks. The six types of risks they now list under market and operational risks are:

- Economic risks
- Client concentration (largely the same that was earlier described as customer concentration/focus or major customers)
- Price level and client contracts
- Recruitment of skill (employees in the earlier years)
- Utilization risk
- Bank contracts and client contracts.

To conclude this section it can be noted that the financial risks has almost remained exactly the same all 7 years we have examined (liquidity and financing risk, interest rate risk, currency risk and customer credit risk).

4.1.4.2 *The Interview*

Lovisa Gyllenhammar tells us that Cybercom used to have an internal auditor that was responsible for looking at risks but that role was removed due to cost savings. Now the responsibility falls on the heads of the different regions to inform the Cybercom Group about risks and how they should be handled.

Lovisa Gyllenhammar says that risk mitigation is an important part when it comes to making the business plan and budget every year. That means that when the business plan is made in the autumn different risks are brought up and discussed; for example risks concerning the budget and how the company should react in different scenarios. One way Cybercom works to try to reduce risks is to not be too dependent on a few large customers in case something happens in the market.

When asked about if risk factors are something that is primarily brought up in the top organizational levels or if it is discussed locally in the regional offices Lovisa Gyllenhammar answered that it is a bottom-up process. The regional levels often see the risks, bring them up to discussion and inform the higher organizational levels so that they become aware of the risks too. She goes on to say that something that has been discovered to be very important is that an employee does not take on all the responsibility for risks themselves. Instead he or she should make others aware of the risk so that the company is prepared to tackle different scenarios.

When we asked her if she had noticed any differences in how Cybercom looks at risk since the crisis she noted that she had. She was not sure to what extent the change was due to the crisis but she had definitely seen an increased focus on risk and risk management since the crisis. The experience they had with Plenware and Nokia also had an impact. That was not only related to the crisis but occurred around the same time. She went on to say that a risk management initiative has always existed in Cybercom but it has become clearer. Especially, as mentioned earlier, the process of bringing the risk awareness up to all levels in the organization. Lovisa Gyllenhammar also mentioned that it is particularly important to be able to communicate possible scenarios to the stakeholders when being a publically noted company.

Lovisa Gyllenhammar felt that if a new crisis were to arise they would be better equipped to deal with it today than they were in 2008-2009. One reason for that is that they are not so dependent on a few large customers like they were before and that is something that they keep improving. They are also better prepared for many different scenarios now than they were before.

4.2 Getinge Group

4.2.1 Introduction

Getinge Group is a large-cap publically noted company. It is organized into three business areas: Extended Care which stands for 27 % of the sales, Infection Control which stands for 29 % and Medical Systems which stands for 53 %. They have around 16000 employees in 40 countries with their biggest markets being Europe and North America although they are established in other parts of the world as well. In 2014 their net sales was 26 669 MSEK.

4.2.2 Economic Development

4.2.2.1 Annual Reports (2008 – 2014)

When looking at the net sales and results throughout the years in Getinge's annual reports we find that Getinge has been quite stable financially.

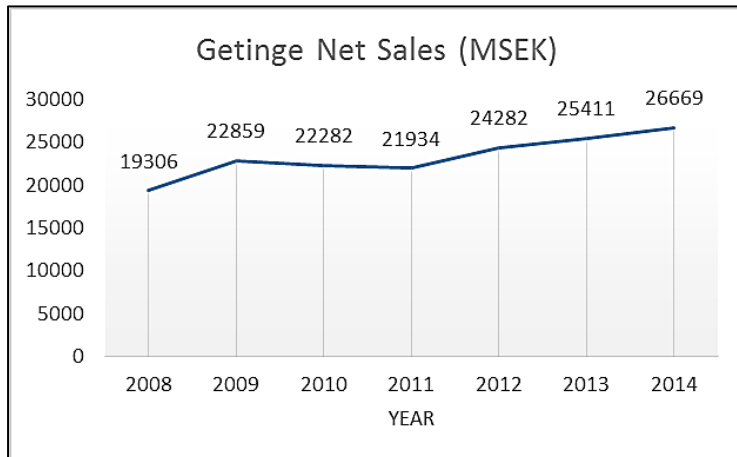


Fig. 4.3: Getinge net sales over the years (Getinge Annual Reports, 2008 – 2014)

Getinge has managed the financial crisis quite well. Their net sales decreased slightly during 2010 and 2011, the years following the crisis, but have continuously increased since 2012 (fig 4.3).

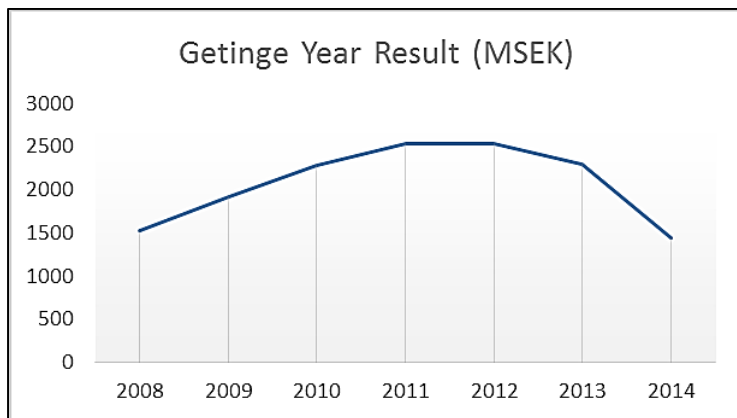


Fig. 4.4: Getinge year results over the years (Getinge Annual Reports, 2008 – 2014)

The result however has reduced in the last couple of years (fig. 4.4). One factor that led to the low result in 2014 seems to be large restructuring and integration costs.

In their financial report from 2014 Getinge writes that the industry for medical technology has been characterized by low global growth since 2009. They say that it will probably improve in coming years but that it is unlikely that it will ever reach the levels it had before 2009; however the growth markets are expected to grow much more than the mature markets.

4.2.2.2 *The Interview*

Getinge was able to keep the result growing even though the sales declined in the years after the crisis struck. Ulf Grunander said that this was due to the fact that, after they had adjusted the costs as much as they could, they increased their coordination very successfully. That led to them improving their margins. Ulf Grunander also pointed out that the changes in the exchange rates during those years can also have had some impact on the results.

Historically Getinge has not been affected very much by changes in the economy like recessions; largely because healthcare has always been needed. However, since the last crisis, Ulf Grunander has seen a change. Most countries have had to cut down costs even in their healthcare. It has been too high of a percentage of the GDP. This has put pressure on the whole industry to try to reduce costs to keep their margins at the same level as before. Everybody has had to change their mindset and work in a tighter environment; it is not only the quality of the product that matters anymore.

Earlier recessions was also not as widely spread across the world as this one. Today, especially in Europe, the countries are affected more by each other. Getinge still has 40 % of their sales in Europe and even though they are established in many countries, almost all countries have felt the pressure to reduce their healthcare costs. The only exception in Europe was Germany that managed to keep theirs on the same level throughout the crisis. Another difference from earlier recessions is that historically a country coming out from a crisis usually started to invest more after having had to hold back on investments for a couple of years, but overall the growth rate is very slow at the moment. In the USA the growth rate is slightly better than in Europe due to the fact that more and more people are getting health insurance and therefore increasing the demand.

Ulf Grunander went on to say that he does not really think that we have left the crisis behind us yet. Within the health care industry the economy is still subdued.

4.2.3 Management Control

4.2.3.1 *Annual Reports (2008 – 2014)*

Getinge writes a great deal about the importance quality and efficiency and work to establish group values and a focus on sustainability and ethics.

In the financial report Getinge describes a strategy with the five areas they focus on (2014). They are:

- Documented value creation through strengthened innovation power
- Strengthen the sales model through dialog with senior managers
- Expansion in emerging markets through a market-adapted product offering
- Supply chain excellence through reduced complexity and geographic optimization
- Utilize and leverage synergies through increased collaboration between the business areas

In 2008 the financial goals were annual profit growth of 15%, an operating margin of 18-19% and to have a cash flow that enables a continued acquisition-driven expansion of 10% without additional shareholder contributions. In 2009 the financial goals were changed and have largely remained the same to 2014. The only difference is that in the years 2009 – 2011 there was an additional goal to have an annual organic growth of 5% and that the EBITDA margin goal in 2009 was 20 % instead of 22%.

Today the goals are:

- Profit before tax shall grow by an average of 15 % annually
- Organic growth shall outperform market growth by 2 percentage points
- The EBITA margin shall be about 22%
- Cash conversion – 60 to 70% of EBITDA shall be converted to operating cash flow.

4.2.3.2 *The Interview*

Getinge works with is a yearly budget. During the year they make three updates which they call forecasts and the also have a long term plan five years into the future. The budget is more of an operative control while the forecast is more to see where Getinge is at the moment. The five year plan is where growth targets, profitability targets and cash flow targets are stated among other goals.

Getinge also works a great deal with policies and guidelines and within those many decisions is made. There are monetary thresholds and responsibility limits. If an investment of purchase is to be made over a specified limit Ulf Grunander has to give his approval. Before an investment suggestion is given to him however, it has to have been evaluated carefully. Getinge uses both discounted values and return values when making investment decisions.

The structure of the organization is fairly simple. There are not many organizational levels. From the Getinge Group management you go to the different business areas and then you are down on a company level. Historically the organization has been decentralized, however at the moment the organization is quite centralized. Since the financial crisis occurred the strategy has changed to be more cost conscious and the process of centralization is a part of that. Ulf Grunander says that they cannot have three completely separate business areas because they have to reduce the administration costs to compensate for the price erosion. “We must reflect on our costs to be profitable so that share owners think that Getinge is worth investing in” says Ulf Grunander. The different business areas used to be able to make decisions themselves if they just followed the strategy and budget. Today the head office has more responsibility and there are more group-wide activities. One example is that all financial functions are to be merged to a Shared Service Center.

Furthermore Ulf Grunander tells us that there is a group called the CFO group where he, as the CFO for Getinge Group, the three CFOs from the different business areas, and a few more from the head office gather to discuss how the management control can be improved. They then try to connect this to every managers operative control which is based on the income statement, working capital and sometimes cash flow. The group especially tries to give managers better access to information as well as to provide information quicker. Information is only useful a certain amount of time. Ulf Grunander believes that due to the technical development it could be possible to work almost in real time with for example billing in a few years.

Another aspect of Getinge's management control is that they work a great deal with Corporate Social Responsibility (CSR). They have a project called Values where a person has been traveling around the world to interview people in our organization to make sure that Getinge's values are spread throughout the organization. The values mentioned are for example credibility, cooperation, leadership and ethics. Especially ethics is something that has had an increased focus. Getinge is established in countries where corruption is present and while they have never accepted corruption they now have a very strong policy against it even it means that they will lose business partners. They also work with goals for the environment. Ulf Grunander says that he believes that to have a successful business there has to be equal focus on management control and CSR.

In the years since the crisis Getinge's strategy has changed somewhat. One big difference is the increased cooperation. Getinge has also become more cost conscious and also worked to develop their efficiency in all areas. Ulf Grunander also said that an important factor for success is that the company continues to be at the forefront within innovation. Information systems also have to be continuously developed. 'We lost some speed there for a while because we had to focus on other things' said Ulf Grunander. However, now Getinge is working daily to improve their previously straggly IT environment with new systems.

If a future crisis were to occur Ulf Grunander said that he thought that Getinge could adapt to that new market situation. He emphasizes that it is important to have a positive view and continue to think growth. Growth is important if people are to thrive in an organization.

4.2.4 Risk Management

4.2.4.1 Annual Reports (2008 - 2014)

In their report from 2014 Getinge divides the risk management into two sections. What is included in them has been largely the same since 2008.

One is a more general section where they list six different areas of risk. The first is the healthcare compensation system which concerns political health care decisions which is considered by Getinge to be the single greatest market risk. Internationalization is used to reduce that risk. The second area concerns customers and their payment which is usually by public funds and therefore solid. Third area of risk is authorities and control bodies which can be a risk because some of Getinge's product range is covered by legislation stipulating rigorous assessments, quality control and documentation. The fourth area of risk is research and development, because to some extent Getinge's future growth depends on the company's ability to develop new and successful products which can be an expensive process. The fifth area is product liability and damage claims which all healthcare suppliers run a risk to be subjected to. Finally the protection of intellectual property is important because Getinge Group is a market leader in the areas in which it operates and invests significant amounts of money in product development.

The second section is the financial risk management. Getinge is exposed to a number of financial risks in its operations. The financial risks are mainly risks related to currency, interest-rate risks, and credit risks. The responsibility for managing the Getinge's financial risks and developing methods of financial risk management lies with Group management and the treasury function.

4.2.4.2 The Interview

Getinge has not put a great deal of focus on risk management. The risk identification they do have is allocated to the different functions within the organization; however there are risk reviews on different levels in the organization as well. Having three different business areas has turned out to be very good profitable model but it also means that Getinge has had the three companies in every market with three different IT systems, three payroll systems etc. That is not sustainable because the compared to 10 years ago customers value price more and high quality less. “That means that we have to focus our organization in a different way”, says Ulf Grunander.

Getinge also have a goal of having 1/3 of their business in Europe, 1/3 in North America and 1/3 in the rest of the world which is something that reduces the risk of being affected of recessions if they are not completely global.

When talking about the future Ulf Grunander said that it looks very positive. Being in the health care industry is not considered to be very risky. The population pyramid is showing that we live longer and longer and we have more diseases attributed to our lifestyles which mean an increased demand for healthcare products. The risk is that the countries cannot afford this increased demand from the populations.

4.3 Vitrolife Group

4.3.1 Introduction

Vitrolife is an In Vitro Fertilization (IVF) company founded in 1994 in Gothenburg, Sweden. The company produces products to help people who need medical help to have children and delivers its products to clinics around the world. In 2014 the company reached net sales of about half a billion SEK and had 330 employees.

The company has departments all over the globe including offices in Australia, the USA, China and Japan on top of several offices spread across Europe. The organization is divided into several different functions, following a traditional design according to Mikael Engblom. The functions are as follows:

- Production
- Sales
- Research and development
- Staff functions

4.3.2 Financial Development

4.3.2.1 Annual Reports (2008 - 2014)

When looking at the development of Vitrolife’s financial standings over the years the company has been able to grow continually since before the crisis started and they appear to be largely unaffected by the financial crisis in terms of increasing their net sales.

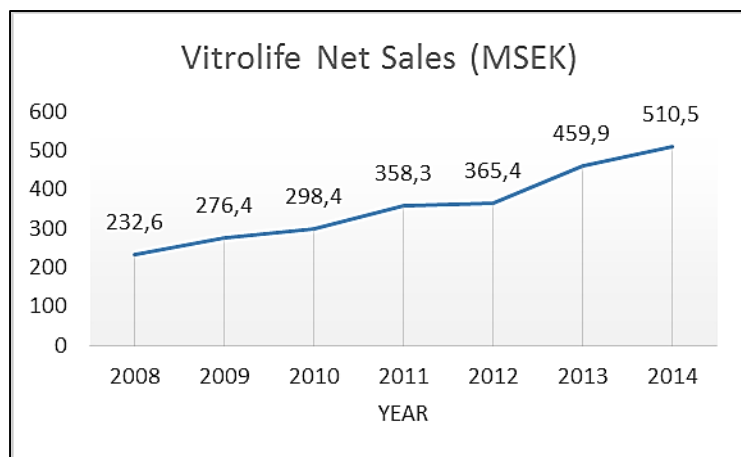


Fig. 4.5: Vitrolife net sales over the years (Vitrolife Annual Reports, 2008 – 2014)

Looking at the company's result (Fig. 4.6) there is some noticeable difference when compared to the graph above (Fig. 4.5). Despite the constant growth in sales Vitrolife clearly struggled to improve their results for the first few years following the crisis. 2013 is the first year where there is a solid increase in the company's results followed by a massive increase the following year. At the end of 2014 Vitrolife acquired the Danish company Fertilitech, which may have been a source of the increase in result through dividends.

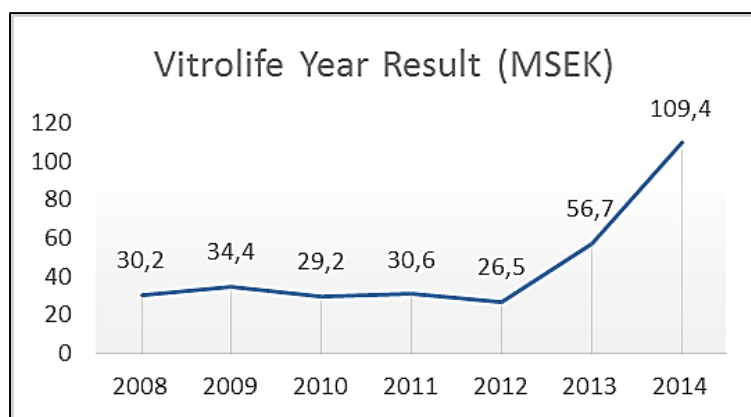


Fig. 4.6: Vitrolife year results over the years (Vitrolife Annual Reports, 2008 – 2014)

4.3.2.2 The Interview

According to Mikael Engblom Vitrolife is a company that largely focuses on growth, and has a target of 20% annual growth while having solid returns on capital. The estimated average market growth is between 5-10%. This means Vitrolife is looking to increase its market share which Mikael estimates to be roughly 15%, within the IVF niche that Vitrolife operates in.

Even though the company's sales continued to grow during the period of the crisis, Mikael Engblom points out that some individual markets saw heavy impact from the crisis. The market in the United States tends to be more dependent on credit institutions as the IVF procedure is not subsidized the way it is in most European countries. After the crash 2008, during the financial crisis, the access to credit in the United States was limited and thus Vitrolife's sales in the region took a hit. Even some countries with subsidized procedures such as the UK felt pressured to reduce healthcare costs and did for a time period during the crisis prioritize lower cost products over the high quality product segment that Vitrolife belongs to, leading to periodically lower sales in the UK which have since then recovered.

4.3.3 Management Control

4.3.3.1 Annual Reports (2008 - 2014)

Looking at the annual reports of Vitrolife, they present a growth strategy where flexibility, profitability, efficiency and relations are some of the key words. They have an overall goal of being the world leading supplier of medical devices for assisted reproduction and list four main strategies to get there:

- Have a fully comprehensive range of effective and quality assured fertility products.
- Have world-leading production with the highest quality control and efficiency standards.
- Have a global support organization covering all IVF treatments worldwide.
- Have an organization structure and processes that support growth

There also is mention of several policies and guidelines but no further guidance on what these represent internally. The company's description of itself over the years conveys roughly the same messages in 2008 as in 2014. The company strives to be a flexible, decentralized organization with a large focus on competence and entrepreneurial spirit supported by quick decision-making in order to achieve their budget targets.

Vitrolife presents a number of key figures at the start of the annual report. These figures hardly change during the period 2008-2014 and comprise:

- Sales figures
- Result figures
- Margins
- Debt/Equity Figures
- Employee figures
- Figures related to Stocks and the company's value on the stock exchange

The only change that could have had some impact on the presentation was a change from solidity to a figure concerning net debt, made between 2012 and 2013. However, after calculating solidity for the year 2014, this change did not appear to have had any large impact on how much debt the company would accept as the solidity figure for 2014 is actually slightly larger in 2014 than it was in 2012.

4.3.3.2 The Interview

Much of Vitrolife's management is based around the budgeting. Every part of the company is controlled with a budget concerning income and expenses. On top of this, there are other basic controls such as return on capital that apply to different markets. Vitrolife also tracks a number of Key Performance Indexes (KPIs). These KPIs regulate everything from financial targets to changes in employees and environmental effects. Some of the financial KPIs tracked are expenses divided on the different groups of products, and how much of the net sales figure is attributable to newly developed products. The latter helps evaluate how well the research and development department of the company is performing.

The organization is generally fairly decentralized and the heads of the different regions have the freedom to choose how to market and price the products as long as they reach budget targets. The budget itself is made using a bottom-up process. Due to the fact that the company is focused on growth, the basis for the budget is growth perspectives in the markets rather than a limitation of the costs. According to Mikael Engblom the budgeting process has been fairly accurate and realistic, and that is partly due to the stability of the market. He considers the IVF-market somewhat disconnected from the usual economic cycle as it has been able to maintain permanent growth during and after the financial crisis. He explains this by saying: "People that are looking to have children by using IVF tend to prioritize the procedure over most other things, meaning they do not usually consider the economic cycle."

In the years since the crisis the management control of the company has shifted a bit. Controls no longer focus on sales, but rather return on investments. This has also affected the control of Vitrolife's research and development, which has become more formalized. In the past research was based mostly on what ideas seemed interesting to research without much thought on the potential gains. Now most of the research has become more market oriented and is based on analyses of the market and calculated returns.

4.3.4 Risk Management

4.3.4.1 Annual Reports (2008 – 2014)

In the oldest annual report we viewed from 2008, the concept of risk is very limited in how it is described. The only risks that the company takes under consideration during this time are focusing on presenting acceptable annual reports, or directly related to the operations and assuring the quality of the products they supply. Starting from 2009, the year where the effects of the crisis started spreading across the entire world; Vitrolife started presenting a much more thorough perspective on risk and how to manage it.

They divided risk into 5 categories:

- Business Environment
- Financial and Commercial
- Operational
- Organization, Leadership, Personnel
- Information

Managing the risks in these areas becomes essential for the company in order for them to be able to pursue what they call “Sustainable Business Development”. 2009 is also the first year the company mentions using an ERM-framework, called ERM Integrated Framework, to deal with risks in the organization. The risk management process appears new to the company at this point and they are still in the early stages of establishing risk management systems and routines.

In the years since 2009, the risk management presentation becomes more structured and the categories are dialed down to just three:

- Business Environment Risks
- Operational Risks
- Financial Risks

During the years 2010-2014 the company also takes the financial crisis into proper consideration, considering which markets risk losing sales and also taking into account that countries may reduce subsidizing when looking at the longer perspective, if the situation is not improved. During this period the presentation of Vitrolife’s risk management hardly changes and much of the same information is provided every year.

4.3.4.2 *The Interview*

For the past few years, in the wake of the financial crisis, the concept of risk management has become more important to Vitrolife. According to Mikael this is largely related to the growth of the company. They feel they have reached a size where they have to manage their activities with a risk perspective. Since 2010 Vitrolife has implemented some parts of Enterprise Risk Management. The senior management has an annual project where they evaluate risks, approximate probabilities and calculate potential economic losses that can stem from the risks. These evaluations play a big role in the formulation of the strategic course of action for the company. Most of the actual ERM work is done by the senior management and Mikael Engblom as the CFO has the main responsibility for the company risk, but he wants to emphasize the groundwork made by the different divisions to provide the necessary information for decision-making.

Some of the risks considered according to Mikael are mainly political risks. Vitrolife sells products to markets around the globe, but are to some extent dependent on large markets such as China. The markets in North Africa became unstable during the “Arabic spring-revolutions”. If something would affect a larger market similarly Vitrolife would take a hit. In Europe, the biggest risk to the market would be if governments suddenly stopped subsidizing the procedures that require Vitrolife products. As always, companies also have to look out for technological risks in the form of new technologies being developed which can make the company’s products obsolete.

5 Analysis

In this chapter we will discuss the most prominent changes we noticed in our companies following the financial crisis. We will focus on the changes we can see in how the companies handle risk and how that relates to their management control.

5.1 The Crisis' Effects on Management Control and Risk Management

Looking at the financial development we can easily spot some differences in our respective companies. Vitrolife Group was clearly the most successful financially during the years of the crisis according to our observations. This is based on their ability to maintain a large and stable growth as well as producing positive results throughout the years. Getinge Group had a small dip in net sales after the crisis hit, but did recover fairly quickly and, thanks to increased margins, had solid net results during all the years of the crisis. Out of our studied companies Cybercom Group was the one that clearly stood out as the company that struggled in the years following the crisis by having negative results for several years and declining net sales.

One interesting factor that we discovered through the interviews is that all three companies in this study are, according to themselves, not very sensitive to recessions due to their line of business. Getinge and Vitrolife are in the health care industry which has always been relatively unaffected by the economic cycle of the market. However, Getinge's CFO Ulf Grunander noted that the crisis in 2008-2009 was so severe that even the health care market saw a decline. Vitrolife also being in the health care industry noticed this as well. They were however only affected in some markets, and not to the same extent as Getinge. The different experiences of the companies during the crisis is probably due to Vitrolife being specialized in products related to In Vitro Fertilization, a process that Mikael Engblom believes is resistant to economic cycles due to being highly prioritized by the customers. Cybercom on the other hand see themselves as relatively insensitive to recessions because they are a consulting company and positioned relatively far from the consumer market. They were however very affected by the crisis in 2008-2009, due to being highly dependent on a limited number of large customers, some of which were largely affected by the crisis, according to Lovisa Gyllenhammar.

For Getinge and Cybercom, companies that previously considered themselves to be in very stable markets and not affected by recessions, this crisis had a big impact. It led to more discussions on how management control should be conducted to reduce the negative effects of a recession and how they could try to reduce the risk of being as affected if another crisis were to occur. The crisis of 2008-2009 was therefore more impactful than previous recessions when it comes to making the companies reflect on their management control and how they can become more risk aware. The crisis did not have equal effect on Vitrolife since they already worked with an ERM system and continued to do well throughout the years during and after the crisis. The thing that all companies stated was that they themselves had increased their focus on risk in the years following the crisis, due to uncertainty about some markets and other similar outside factors becoming more important for the companies' success. This emphasizes the increased research focus concerning risk management observed by the likes of Power (2004) and Van der Stede (2011).

When analyzing the changes we can see in the companies in the last few years, and discussing whether or not they are related to the financial crisis, we found mostly formal changes. When we look at the increased risk awareness however, it can be seen as an informal change within companies. However, as it develops, it can become a formal change. An example of a formalized change concerning risk is Vitrolife's introduction of Enterprise Risk Management.

5.2 Risk Management in Our Companies

A dichotomy discussed by Burns and Scapens is that between evolutionary and revolutionary change. We found that both types of change clearly can be seen when it comes to risk management and it can sometimes be difficult to clearly separate the two. The increased focus on risk has developed evolutionary throughout the years, especially after the crisis, but also taken revolutionary steps such as the introduction of ERP by Vitrolife. We will now discuss how the risk management has developed within our respective companies.

5.2.1 Cybercom

Both the interview and the annual reports tell us that Cybercom is very aware of risks that can befall the company. There is a thorough description of operational, financial and market risks and examples presented in the annual reports. However, there appears to be little to no analysis presented on how these risks affect the company and what countermeasures exist, which of course could be related to company secrecy, but it could be reassuring for investors and creditors to know about how the company handles the identified risks.

There is no presence of an ERM framework or other methods of calculating the cost of risks. Their approach is instead to have a bottom-up process of reporting risks as they are discovered to senior management. There is an annual meeting where the risks concerning the company are brought up and different scenarios, regarding for instance budgeting, are discussed. These meetings improve the risk awareness of the company, but the meetings are arguably too infrequent to fit the mold of ERM as the empirical evidence presented by Paape and Speklé (2012) have shown that a higher frequency of risk measuring positively affects the results of risk management. Lovisa Gyllenhammar emphasizes the increased focus on risk within the company over the past few years and it is not unreasonable to expect that Cybercom will further develop their risk management, by implementing ERM frameworks or by other means.

5.2.2 Getinge

Getinge's annual reports discuss several risks and divide them into categories; this presentation looks mostly the same over the years. The interview however revealed that Getinge Group has had to consider their approach to risk since the financial crisis. Getinge is a greatly internationalized company operating over most of the globe, and historically their markets have been very stable through the economic cycles. However, in the years following the financial crisis, the demand took a dip and the subduction of the market is, according to Ulf Grunander, still present in the company's operations to this day. The path through the crisis consisted of cutting costs and increasing the tightness of control, but the company may have to adapt to a future market that is not going to be able to provide constant growth. The risk awareness of Getinge does appear limited and risks are not discussed for the company as a whole. The lack of risk present to Getinge historically, due to stable growth in the markets, may be one of the reasons the company is currently not actively managing risk. The increased pressure on companies following the financial crisis to review risk, quantify them and manage them has not yet affected Getinge, and time will tell if they have to adapt to a riskier future and permanent changes in the characteristics of the health care market.

5.2.3 Vitrolife

Vitrolife Group has clearly developed their management of risks over the years during and following the crisis. While the company did not financially take a blow during the crisis, the large growth of the company increased the pressure to implement risk management, to evaluate risks holistically and allow continued growth. The annual reports show a clear development when regarding how risks are presented and managed. Before the crisis, there were barely any mentions of risks that did not regard the quality of the products themselves and how there is always a safety focus when working in a field relating to medical procedures.

Vitrolife has implemented an ERM framework, and they annually evaluate and calculate the potential risks and costs associated for the company. The fact that every division of the company is responsible for identifying potential risks for the senior management to evaluate shows an ambition for a risk aware organization. The knowledge transfer of risks from every division should give the senior management the opportunity to calculate and properly balance risk while allowing the company to reach its financial goals.

5.2.4 Comparisons

When comparing the companies we can see that they have taken slightly different approaches to risk, which can be seen as different steps along the way to risk management. Getinge has taken a first step towards risk awareness, they no longer assume constant growth in all their markets, but still only have risk on the back of their minds when taking decisions regarding management control. Cybercom would be considered being on the second step of the risk management implementation process, where risks are being shared and carefully reported to senior management and then shared throughout the organization, but they are still not at the point where they calculate and balance risk.

The company that has come furthest towards managing risk, according to us, is Vitrolife. We would argue that Vitrolife is on the third step of implementation. They have implemented a framework for ERM and are quantifying and calculating their known risks within the organization. The process appears to be functional on the macro level, where the senior management gets the necessary information of the risks within the company in order to be able to keep the company risk balanced. However, the ERM process within Vitrolife still has some way to go towards being effective and creating higher value. The risks within the company are being analyzed annually; a more frequent approach to risk would most likely help the company to stay “up-to-date”. Furthermore the micro level of risk analysis, where every divisional manager is weighing risks in order to take the right decisions, still appears to be underdeveloped within the company.

None of the companies are currently on the level of complete risk management, where the entire organization holistically views risk and accounts for it in their everyday operations. This may be attributed to the flaws in the available frameworks for implementing ERM discussed by Power (2009). The current ERM frameworks are considered too general and not applicable over entire organizations by several researchers and this may cause the company to not want to over-extend their current framework.

5.3 Connecting Risk Management to Management Control

We are now putting the focus on risk management's connection to management control. The mentions of risk management in relation to management control have steadily increased in articles published over the years. One example is mentioned by Van der Stede in his article "Management accounting research in the wake of the Crisis" (2011). He describes an increased motivation to research risk management for management control purposes. Risk management is described in the article as "the area that has come most to the fore in the wake of the crisis". Risk management related to management control is also mentioned in Berry et al.'s article called "Emerging themes in management control: A review of recent literature" (2009) which discusses the increased desire to measure and manage risk. In the article they also discuss that it is uncommon to use statistical data for calculation in practice and that most companies rely on frameworks for risk management to be able to quantify and account for risk by estimating the likelihood of certain events and the costs they would bring. These frameworks should be able to fit in to Malmi and Browns (2008) packages for management control, as part of the cybernetic controls.

We use this framework discussed in Malmi and Brown article "Management control systems as a package—Opportunities, challenges and research directions" when looking at the management control systems in our three chosen companies. We find that looking at management control as a package is very useful when studying different companies to be able to get a holistic view of the companies' management control, especially when trying to establish how risk management is related to management control.

On part of the package are the administrative controls which include the structure of the company. Here some big differences can be seen between the companies. Vitrolife is primarily structured according to functions like production and R&D, Getinge is divided according to their three business areas and Cybercom is structured according to their different geographical regions. Another difference is that while Getinge and Cybercom have become more centralized since the crisis, Vitrolife has kept a more decentralized management control. This could be connected to Vitrolife doing so well financially through the crisis. They did not see the same need that Getinge and Cybercom did to try to make their management control more effective. Cybercom especially focused on simplification and Getinge on having a tighter, more focused environment.

Van der Stede discusses how the risk management is encompassed of not only internal control systems, but also the structure and culture of a company which affects risk management effectiveness by controlling how risk management is embraced by the organization and how the general approach to risk will be; who it will have an effect on. This means that risk management can be seen as a part of the management package, as a part of the administrative controls. Risk management frameworks can also be included as a part of the cybernetic controls where the non-financial measuring systems are sorted when it has become integrated in the company to the point that calculations are being made.

6 Conclusions

Research Question: How has the concept of risk management developed after the financial crisis and has it become more prominent in companies management control decision making processes?

6.1 The Increased Importance of Risk Management

Several articles published in the last 10 years, such as those by Berry et al. (2009), Powers (2004) and Van der Stede (2011) describes an increased importance of risk management for companies. During our interviews with the studied companies we were told that the focus on risk increased during the financial crisis and in the years to follow. In the case of Getinge and Cybercom the uncertainty of the market became an important part of how they view risk. As for Vitrolife, the steps taken to manage risk was not connected to market risk, but rather to ensure further growth for the company. Regardless of the reason all companies consider risk awareness an important part of doing business and feel that its importance has increased in the wake of the crisis. For the most part the interviews with the companies confirms the increased risk management focus presented in the literature, however the implementation of risk management is not yet fully present in our companies.

6.2 The Ladder of Risk Management

After considering the steps taken by our companies to implement risk management, we argue that there could be several steps to an implementation process. These steps have not been considered in any of our reviewed research on risk management.

We chose to look at the implementation of risk management as a ladder (Fig. 6.2), where the risk management becomes more valuable to the company the higher you manage to climb. You can climb the first step, “Risk Awareness”, simply by becoming more aware of the risks relating to the company. This is an informal change in the company and develops in an evolutionary way over time or revolutionary through a large event such as the global financial crisis. Following the first step, the company has to commit to formal change, such as frameworks and policies, in order to climb the ladder further. We have chosen to call the next step “Risk Sharing” and consider this step to be when the divisions of the company starts sharing any observed risks by reporting them to the senior management, allowing them to get some overview of the company’s risk. We are calling the third step “Risk Calculation”, and this is where the company starts quantifying the costs of risk carried by the company and calculate them in their strategic decisions made on the senior management level in order to balance the company’s risk. In order to reach the final step where the organization works as a unit to manage and balance risk in every division, here called “Enterprise Risk Management”, we believe there is a need for a currently missing step. The missing step is here called “Enterprise-wide and Enterprise-specific frameworks” and refers to the current frameworks of ERM and how they receive critique from researchers that they are too general to be applicable in every division of large companies. These frameworks would need to be improved and allowed to be more specific in their use to allow companies to fully implement a complete Enterprise Risk Management system.

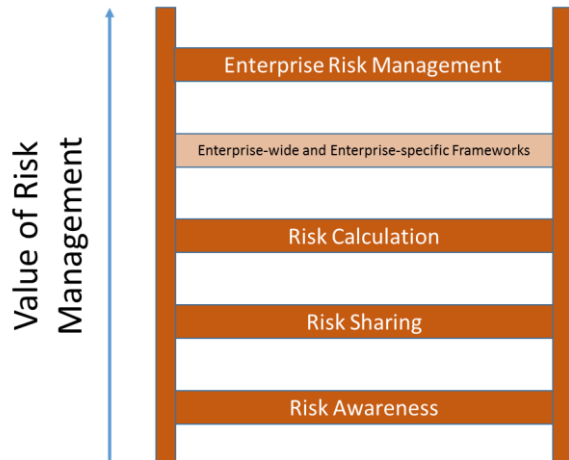


Fig. 6.1: *Our Risk Management implementation ladder*

6.3 Risk Management in the Management Control Package

Finally, we have been looking into the connection between risk management and management control and if risk management fits into the packages of control described by Malmi and Brown (2008). Berry et al. (2009) and Van der Stede (2011) are presenting risk management as a part of management control and the connection became even clearer following the interviews. Getinge lacks someone responsible for managing risk within the company, but in both Cybercom and Vitrolife the risk responsibility lies with the same people that are in charge of the company's management control. Risk management is not yet an everyday activity within the corporations studied but it is taken into account when designing the company's management control.

Our conclusion is that the first connections that have been made in literature between management control and risk management does appear to reflect the real world in the companies we have observed. Vitrolife and Cybercom, that have come a bit further in their risk management work than Getinge, use risk management as part of their planning controls and Vitrolife uses an ERM framework that could be considered a cybernetic control in Malmi and Brown's (2008) model of MCS packages. Based on our interviews we believe that, following the crisis, companies feel the need to be risk aware in their management control systems which we have illustrated in fig. 6.2.

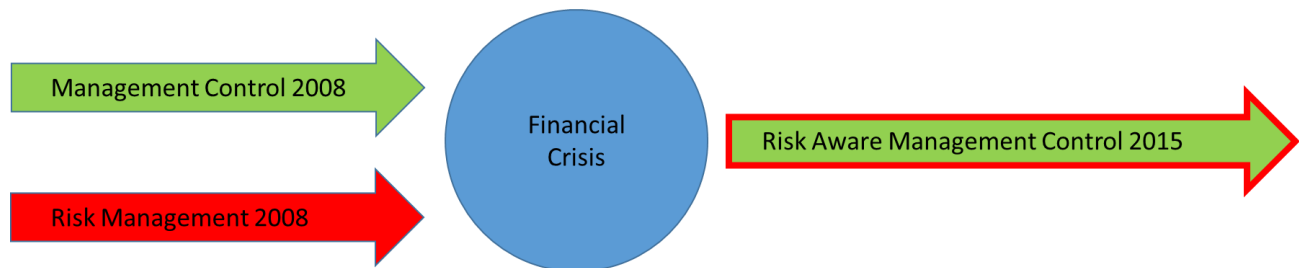


Fig. 6.2: *Our Conclusive Model*

6.4 Suggested Further Areas of Research

- We believe there is need for larger studies that include more companies, in order to draw more general conclusions on the process of risk management implementation in companies as well as the incorporation of risk management in the management control packages.
- How the financial crises affected SMEs and if they show the same patterns of risk management implementation as their larger counterparts.
- Research on how to improve the currently lacking frameworks available to companies looking to improve their risk management.

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Vitrolife Group: Annual reports 2008-2014. Vitrolife AB: Gothenburg, Sweden.

8 Appendix

8.1 Interview Template

A Short Presentation of our Contact and the Company

- What is your role within the company and what are your tasks?
- What is your view on the company's development since the financial crisis?
- How is the organization structured?

Management Control and Risk Management

- Who makes the decisions regarding your management control?
- What parts comprise your management control?
- How do you work with budgeting and planning?
- Do you track any key figures for management control that are not mentioned in the annual reports?
- Is there any presence of risk control or risk management within the company?
- Are you familiar with or currently using an Enterprise Risk Management framework?

The Financial Crisis

- How did the financial crisis affect the company, economically as well as other effects?
- How did the financial crisis affect the lines of business you are operating in?
- Did the financial crisis affect the company's outlook on risk, and how?
- What changes did you do to your management control following the crisis?
- Were the changes temporary counters to the crisis or do they remain today?
- What are your outlooks on the future regarding management control, risk management and future crises?