Risk Management and Internal Control Systems in the Financial Sector of the Norwegian Economy: A case study of DnB NOR ASA

by

Anne Deladem Siayor

Master Thesis in Economics and Business Administration

Accounting Option

(30 Credit Points)

Tromsø University Business School

University of Tromsø

November 2010

FOREWORD

This research work is my master thesis in Economics and Business Administration, at the Tromsø University Business School, Norway. Through this thesis, I have gained knowledge in the concept of risk management and internal control systems in listed companies and insight into how effective these control measures are in the financial sector of the Norwegian economy.

I would like to first of all express my gratitude to the Almighty God without whom I wouldn't have had the opportunity to undertake this study. To my supervisors Ulf Mack Growen and Gunnar Ottesen, I want to show my appreciation for your guidance, inspiration, advice and encouragement throughout the time of writing this thesis. You made it possible for me to obtain documents and information necessary for this thesis.

I want to thank my contact person, Marit Elisabeth Giske and my respondents especially Roar Hoff for giving me helpful information and for sharing his thoughts with me.

To my dear husband Larry E. Siayor, I want to thank you for your support, good advice and ideas during these years of my study; you are a fantastic husband and to our lovely children Marilyn, Joel and Joan who endured my absence in order for me to complete this work.

Finally, I want to thank my parents, Mr. Charles K. Gbologah and Juliet Bedzrah, my uncle, Mr. Winfred Gbologah, my sister and brother, Vivian and Bright Gbologah for their continues support. God bless you all.

Tromsø, November 2010

Anne D. Siayor

ABSTRACT

Businesses today are faced with greater challenges and complications than ever before, as economical, technological and legal interdependence become more common and pronounced. Due to these developments, risks may go unidentified too long and early warning indicators ignored. It is therefore assumed that every business organization has put in place risk management and internal control systems in order for the organization to continue running. In light of this, this research is undertaken to find out more about the risk management and internal control systems in the financial sector of the Norwegian economy.

The objectives of this thesis are to find out the risks that threaten the operations of DnB NOR ASA, the impact of these risks on the financial performance of DnB NOR ASA, the risk management and internal control systems put in place by DnB NOR ASA and how these control systems have impacted on the performance of DnB NOR ASA.

My thesis is a study of a concrete problem that every organization is exposed to. The investigation is made through the combination of theory and empirical work. Primary and secondary data has been gathered though qualitative and quantitative approaches. Questionnaire was used to collect primary information from key informants in DnB NOR ASA in the financial sector of Norway.

At the end of this study, significant findings in the company revealed that risk management and internal control systems exist in the company and that these control systems are very important, effective and therefore provide adequate checks and balances in DnB NOR ASA. The study also reveled that due to the strong risk management, internal control systems and credit strategies put in place by DnB NOR ASA, the company performed fairly well despite the down turn on the economy, such that the bank experienced less negative effect both on performance and profitability.

Keywords: Risk Management, Internal Control Systems, Corporate Governance, the Financial Sector, Financial Institution, the Norwegian Economy.

LIST OF ABBREVIATIONS AND ACRONYMS

AICPA	The American Institute of Certified Public Accountants
AIRMIC	The Association of Insurance and Risk Managers
ALARM	The National Forum for Risk Management in the Public Sector
ALCO	Group's Asset and Liability Committee
BBC	British Broadcasting Corporation
BRSB	The Banking Regulation and Supervision Board
CIMA	Chartered Institute of Management Accountants
COSO	Committee of Sponsoring Organizations of the Treadway Commission
EC	European Commission
ET EL	And the rest (Latin expression)
ICAEW	Institute of Chartered Accountants in England & Wales
IFA	International Federation of Accountants
IR	Investor Relations
IRM	The Institute of Risk Management
LTFU	Long Term Funding Unit
MBA	Masters in Business Administration
NOK	Norwegian Kroner (currency)
NOU	Norges Offentlige Utredninger
NUES	Norsk Utvalg for Eierstyring og Selskapsledelse
OSE	Oslo Stock Exchange
RBICRM	Regulation on Banks' Internal Control and Risk Management Systems
UK	United Kingdom
US	United States of America
USD	United States Dollar

TRANSLATION OF NORWEGIAN TERMS INTO ENGLISH

Finansavtaleloven	Finance Contracts
Finansdepartementet	The Ministry of Finance
Kredittilsynet (now known as Finanstilsynet)	The Financial Supervisory Authority
Lov om Finansieringsvirksomhet	Financial Institutions' Law
Norges Offentlige Utredninger	Norwegian Public Reports
Norsk Utvalg for Eierstyring og Selskapsledelse	The Norwegian Code of Practice for Corporate Governance
Oslo Børs	Oslo Stock Exchange
Selskapsrett og Corporate Governance	Corporate Law and Corporate Governance
Verdipapirhandelloven	Securities Trading Act

TABLE OF CONTENTS

FOREWORD .... **I**

ABSTRACT .... **II**

LIST OF ABBREVIATIONS AND ACRONYMS .... **III**

TRANSLATION OF NORWEGIAN TERMS INTO ENGLISH .... **IV**

LIST OF FIGURES AND TABLES .... **VII**

CHAPTER ONE **1**

1. INTRODUCTION **1**

1.1 BACKGROUND 1
1.2 PROBLEM FORMULATION 3
1.3 STATEMENT OF HYPOTHESIS 4
1.4 RESEARCH QUESTIONS 4
1.5 OBJECTIVES 4
1.6 SCOPE OF THE STUDY 5
1.7 STRUCTURE OF THE THESIS 5

CHAPTER TWO **6**

2. THEORETICAL BACKGROUND **6**

2.1 RISK 6
2.2 RISK MANAGEMENT 8
2.3 INTERNAL CONTROL AND INTERNAL CONTROL SYSTEMS 13
2.3.1 RISK MANAGEMENT VERSUS INTERNAL CONTROL SYSTEMS *17*
2.3.2 INTERNAL AUDIT AND AUDIT COMMITTEE *17*
2.4 CORPORATE GOVERNANCE 18
2.4.1 HOW RISK MANAGEMENT AND INTERNAL CONTROL SYSTEMS WORK IN NORWAY *19*
2.4.2 IMPORTANCE OF RISK MANAGEMENT AND INTERNAL CONTROL SYSTEMS *20*
2.4.3 PROBLEMS RELATED TO RISK MANAGEMENT AND INTERNAL CONTROL SYSTEMS *21*

CHAPTER THREE **22**

3. METHOD **22**

3.1 TOPIC SELECTION PROCESS 22
3.2 CHOICE OF SECTOR 22
3.3 THE CHOICE OF COMPANY 22
3.3.1 THE FINANCIAL SECTOR *23*
3.4 INFORMATION GATHERING 23
3.5 RESEARCH METHOD 24
3.6 DATA COLLECTION 24
3.6.1 THE PRIMARY DATA *24*
3.6.2 DESIGN OF THE QUESTIONNAIRE *25*
3.6.3 THE QUESTIONNAIRE *25*
3.6.4 THE SECONDARY DATA *25*
3.6.5 PERSONAL CONTACTS *26*
3.7 METHOD OF DATA ANALYSIS 26
3.7.1 RELIABILITY *27*
3.7.2 VALIDITY *27*

CHAPTER FOUR **28**

4. STUDY POPULATION **28**

4.1 OSLO BØRS 28
4.2 RISKS AFFECTING THE FINANCIAL SECTOR 28
4.3 THE CASE STUDY 30
4.3.1 RISK AREAS OF THE GROUP *32*
4.3.2 RISK MANAGEMENT IN DnB NOR ASA *34*

4.3.3 INTERNAL CONTROL IN DnB NOR ASA *36*

CHAPTER FIVE **38**

5. ANALYSIS **38**

5.1 DATA COLLECTED 38
5.2 THE RESULT 38
5.3 POPULATION AND RESPONDENTS 38
5.3.1 SECTION ONE - EDUCATIONAL BACKGROUND OF RESPONDENTS *38*
5.3.2 SECTION TWO - RISK MANAGEMENT *39*
5.3.3 SECTION THREE - INTERNAL CONTROL SYSTEMS *41*
5.3.4 SECTION FOUR - OPEN ENDED QUESTIONS *42*
5.3.5 NON-RESPONSE REPLIES *42*
5.4 RESEARCH PROBLEMS AND LIMITATIONS 43

CHAPTER SIX **44**

6. SUMMARY **44**

6.1 KEY FINDINGS 44
6.2 RECOMMENDATIONS 46
6.3 SUGGESTIONS FOR FURTHER RESEARCH 46
6.4 CONCLUSION 47

LIST OF REFERENCES **48**

APPENDIX 1 - COVER LETTER ..... **I**

APPENDIX 2 - QUESTIONNAIRE ..... **II**

LIST OF FIGURES AND TABLES

FIGURES

Fig 1. The Risk Impact/Probability Chart 7

Fig 2. Enterprise Risk Management-(ERM) 10

Fig 3. The Risk Management Process 12

Fig 4. The COSO Internal Control 16

Fig 5. Management in DnB NOR ASA 31

Fig 6. Risk management and internal control and information and communications 36

TABLES

Table 1. Risk Management and Internal Control 20

Table 2. Quantified risk-adjusted capital table. 33

Table 3. Performance of DnB NOR ASA in terms of profitability 45

Table 4. Comparism of DnB NOR ASA’s financial performance from 2005 to 2009 45

CHAPTER ONE

1. INTRODUCTION

All forms of economic activities are confronted with risks. Some of these risks, both internal and external, involve huge losses that could deprive a firm from its continuity if the proper management is not put in place. These days, managing risk has become a matter of necessity. This thesis looks at risks faced by firms in the financial sector in Norway, how these risks are managed and the systems of control used to mitigate them using DnB NOR ASA as a case study. Risk has been defined as "uncertain future events that could influence the achievement of the organization's strategic, operational and financial objectives" (IFA, 1999). "Risk can be defined as the combination of the probability of an even and its consequences" (IRM et al., 2002).

1.1 BACKGROUND

The aim of every profit-making organization is to earn profit, stay in business for a long time, meet customers' demand and expectations, pay their debts when they fall due and satisfy the aims of stakeholders. These objectives are easily achieved if the owner and manager of the company is the same person. However, as the business grows and expands, the need for additional employees arises and the owner employs more and more people to help manage the company. This gradually results in what is called in business terms "separation of ownership and control" (Smith, 1776). At this point, the owner realizes that precautions must be taken to protect the company as well as the interest of the owner. The issue of ownership and control becomes more complicated if a company is big and listed on a recognized stock exchange. That is, a company with much more capital investment both in cash, assets and personnel. Thus, the owners need an assurance that the intended objectives of the company would be achieved, assets of the company would be protected from theft and mismanagement, the accounting information would be received on time and that they would be accurate and reliable.

The weaknesses of many companies' control systems have been highlighted due to the big financial scandals of recent years (between 2001 and 2003) and as a result increased attention on risk management, internal controls, internal audit and their role in modern organizations. The implementation of the Sarbanes-Oxley Act 2002 (SOX), which was enacted by the US Congress, in response to a number of major corporate and accounting scandals including those affecting Enron Corporation, Tyco International, WorldCom and others, is an evidence of major steps taken by governments to revise company regulations (Coates, 2002). These scandals and control weaknesses are spreading around the globe and Norway has also experienced its fair share of the financial scandal, for example the Finance Credit scandal (Berglund, 2002), the Statoil corruption case uncovered by the Norwegian paper, Aftenposten (Tisdall, 2003) and the Terra Securities scandal (Bjørndal, 2007).

As a result, the King together with the Norwegian council also appointed an expert committee with the combined tasks of proposing draft transposition measures for the implementation of directives 2005/60/EC and 2006/46/EC, which is to assess, within the scope of preventing fraud and other financial malpractices, the need for and suitability of other measures (NOU 2008:16). This bill is to direct attention on identifying measures that could secure or improve stakeholders' access to vital information, as well as making it easier for companies to comply with existing legislation. This in a way highlights the need to review the Norwegian system for controlling companies' activities. Following these high profile corporate fraud and accounting scandals, greater demands have been created on companies to account for in their corporate governance statements, what risk factors they are exposed to and the internal control systems put in place to alleviate them.

Risk management is "a process of understanding and managing the risks that the entity is inevitably subject to in attempting to achieve its corporate objectives. For management purposes, risks are usually divided into categories such as operational, financial, legal compliance, information and personnel. One example of an integrated solution to risk management is enterprise risk management" (CIMA, 2005). Effective risk management involves risk assessment, risk evaluation, risk treatment and risk reporting. The focus of good risk management is the identification and treatment of these risks in accordance with the organization's risk appetite. These risks need to be managed and controlled in order to prevent vibrant organizations from catastrophic losses and help them achieve their goals and objectives.

An organization needs to understand its mission and articulate it clearly. This makes it easier to recognize the risks associated with the mission. Once an organization identifies its mission, it can begin its risk assessment by listing the possible risks that threaten the business with the aim of identifying high priority risks and focusing on those first.

Internal control on the other hand, is “the whole system of controls, financial and otherwise, established in order to provide reasonable assurance of: (a) effective and efficient operation; (b) internal financial control; (c) compliance with laws and regulations” (CIMA, 2006)

The formality, structure and nature of a company’s system of internal control will generally vary with the type of sector or industry, size of the company and the level of public interest in it. Since profits are in essence the reward for successful risk-taking, the purpose of an internal control system is to help manage and control risk appropriately rather than to eliminate it as indicated in the Turnbull Report (ICAEW, 1999). Thus, control mechanisms should be incorporated into the business plan and embedded in the day-to-day activities of the company.

1.2 PROBLEM FORMULATION

Risk is inherent in every economic activity and every organization has to manage it according to its size and nature of operation because without risk management no organization can survive in the long run. This is because businesses today are faced with far greater challenges than before due to the fact that economical, technological and legal interdependence are becoming more prevalent and pronounced. It would be assumed that risk management and internal control systems will vary from organization to organization based on their size or industry sector. It is therefore logical to assume that every business organization has put in place a strong risk management structure and internal control systems to help achieve its goals. These are fundamental to the successful operation and day-to-day running of a business and assist a company in achieving its objectives.

Risk may affect many areas of activity, such as strategy, operation, finance, technology and environment. In terms of specifics, it may include, for example, loss of key staff, substantial reductions in financial and other resources, severe disruptions to the flow of information and communication, fires or other physical disasters, leading to interruptions of business and or loss of records. More generally, risk also encompasses issues such as fraud, waste, abuse and mismanagement. In light of this, it is expedient to find out more about the risks that threaten the operations of DnB NOR ASA, an institution in the financial sector and listed on Oslo Børs, which risk management and internal control systems are put in place, how these control measures facilitate the smooth running of the company in achieving its objectives and goals, the impact of risk management and internal control systems on the profitability and sustainability of DnB NOR ASA.

1.3 STATEMENT OF HYPOTHESIS

The hypotheses for this thesis are:

a) Risk management and internal control systems exist in DnB NOR ASA.
b) The risk management and internal control systems are being complied with by DnB NOR ASA.

1.4 RESEARCH QUESTIONS

As mentioned earlier, it is hypothesized that risk management and internal control systems exist in DnB NOR ASA and that they are being complied with. The question however is if these systems of control exist:

a) What kind of risks is the company exposed to?
b) What kind of risk management structures and internal control systems exist in the company to control these risks?
c) To what degree are the risk management and internal control system complied with by DnB NOR ASA?

1.5 OBJECTIVES

This thesis aims to achieve the following objectives:

a) To find out those risks that threaten the operations of DnB NOR ASA.
b) To find out the impact of these risks on the financial performance of DnB NOR ASA.
c) To find the risk management and internal control systems put in place by DnB NOR ASA.
d) To find out how these control systems have impacted on the performance of DnB NOR ASA.

1.6 SCOPE OF THE STUDY

This thesis is limited to the study of DnB NOR ASA in the financial sector of the Norwegian economy. The study is concentrated on accounts/finance, internal control, administration, human resources and insurance departments. The reason for choosing these departments is that they are more knowledgeable and responsible for risk management and internal controls in DnB NOR ASA**.**

1.7 STRUCTURE OF THE THESIS

This thesis is structured into six chapters. Chapter one gives an introduction to the research. Chapter two is about the theoretical background to the studies. Chapter three describes the methodology for the studies. Chapter four looks at the case study. Chapter five focuses on data analysis, discussion and interpretation of the results. Chapter six contains key findings, recommendations, suggestion for further research and conclusion.

CHAPTER TWO

2. THEORETICAL BACKGROUND

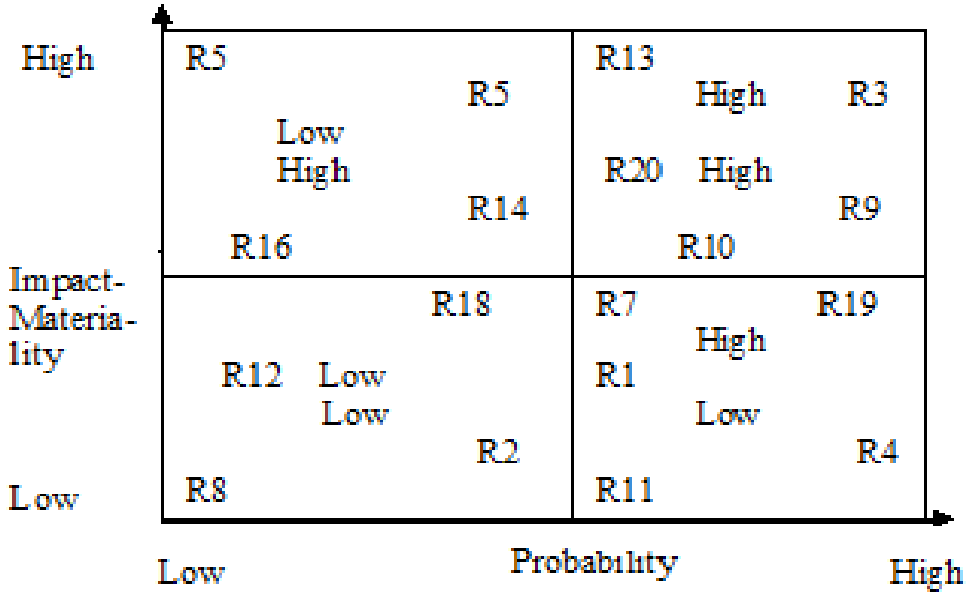
This chapter is about the theoretical background of the thesis. Theories about risk, risk management, internal control, internal control systems, internal audit, audit committee and corporate governance are discussed. It also includes the discussion of the relationship between risk management and internal control systems. These would be used later on to analyse and interpret information gathered.

2.1 RISK

Every human activity involves some kind of risk, for example crossing the road, engaging in sporting activities, taking the bus, starting a new business et cetera. These are normal daily life activities and yet involve some kind of risks. We can however try to minimize such risks by following recommended guidelines or try to avoid partaking in such activities that are considered risky. What is risk then? Even though there is no single generally accepted definition for risk it is a common word used in connection with insurance, finance, banking and can be defined in many ways depending on the person defining it (Dorfman, 2007). In the insurance industry, the term risk refers to the exposure to loss. According to Mun (2004), "risk is any uncertainty that affects a system in an unknown fashion whereby the ramifications are also unknown but bears with it great fluctuation in value and outcome".

Risk can be defined as the combination of the probability of an event and its consequences (IRM et al., 2002). According to ICAEW (1999), risk is defined as real or potential events which can reduce the likelihood of achieving business objectives. Risk has also been defined as: "uncertain future events which could influence the achievement of the organization's strategic, operational and financial objectives" (IFA, 1999). Risk is all about events and their consequences which can happen in the future. As at now, we do not know what event will occur in the next hour, tomorrow or next year and if it does occur what its consequences will be. In order words, how likely it is that an event will happen and how bad it will be if it happens. There is therefore uncertainty about events and their consequences see figure 1.

Fig. 1: The Risk Impact/Probability Chart



Source: Adapted from IRM et al., (2002) and Holt (2006)

These risks could be estimated quantitatively or qualitatively in terms of the probability of the occurrence and the consequences. Figure 1 is based on the principle that a risk has two dimensions: (1) probability - risk is a future event which may or may not occur. The probability lies between just above 0% and just below 100%. If it is 100%, then it would be certainty and not a risk and if it is exactly 0%, it wouldn't be a risk, and (2) impact or consequences - risk by nature has a negative impact and consequences (IRM et al., 2002). However, the degree and size of the impact or consequences will vary in terms of costs and other critical factors. The impact/probability figure allows an organization to determine which priority to give to each risk and how to manage them.

Since April 2010, the need to differentiate between risk and uncertainty has gained heightened relevance and importance as a result of the ash cloud from a volcanic eruption in Iceland causing chaos across Europe. Flights were cancelled causing major airline companies to loose billions of dollars and caused lots of loss in the lives of so many people and companies (BBC News, 2010).

These two words are closely related to each other but totally different in meaning. Risk is when future events occur with measurable probability whereas uncertainty involves things that are completely unknown, for example the ash cloud case. This distinction denotes risk as a positive probability of something bad happening, while uncertainty does not necessarily imply a ranking of the possible outcomes (Chapman and Ward, 2002).

The problems that risk and uncertainty pose are very serious and not easily overcome especially when the risk and uncertainty involve things that people are deeply concern about. This is where risk management helps choose among alternative causes of actions to reduce the effects of risks. Risk management and internal controls are means by which businesses' opportunities are maximized and potential and material losses are reduced (Collier et al., 2007).

2.2 RISK MANAGEMENT

Recent years have seen heightened concern and focus on risk management, as a result of series of business scandals and failures where investors, company personnel and other stakeholders suffered tremendous loss. This resulted in the publication of books, journals, articles and a series of government documents that draw attention to the need for better risk management and how to set up a risk management system. The Sarbanes-Oxley Act in the US, the Basel II Capital Accord and the revised Combined Code (2003) in the UK are all examples of governance reforms with the intention of minimizing the risk of future major corporate failures through tighter regulation of internal control systems.

Risk management is viewed as a corner stone of good corporate governance and therefore results in better service delivery, more efficient and effective use of scarce resources and better project management (Collier et al., 2007). It has to do with identification, analysis and control of such risks that threaten resources, assets, personnel and the earning capacity of a company.

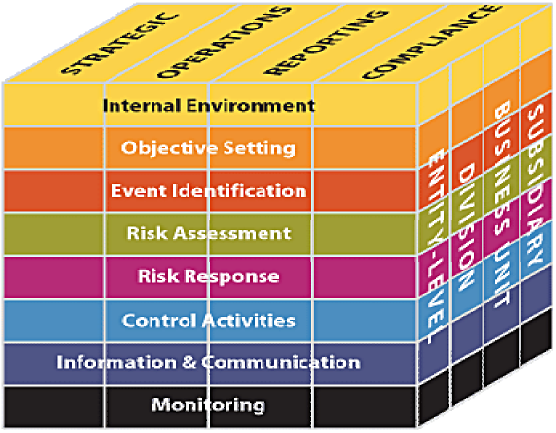
According to Dorfman (2007), risk management is the logical development and implementation of a plan to deal with potential losses. It is important for an organization to put in place risk management programmes so as to manage its exposure to risks as well as protect its assets. The essence is to prepare ahead of time on how to control and finance losses before they occur. Dorfman continues to say that risk management is a strategy of pre-loss planning for pre-loss resources.

Risk management is: “a process of understanding and managing the risks that the entity is inevitably subject to in attempting to achieve its corporate objectives. For management purposes, risks are usually divided into categories such as operational, financial, legal compliance, information and personnel. One example of an integrated solution to risk management is enterprise risk management” (CIMA, 2005). The Institute of Risk Management also provided a more detailed definition of risk management as: the processes by which organizations methodologically address the risks to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities (IRM et al., 2002).

In 1992, COSO issued the Internal Control – Integrated Framework with the intention of helping businesses and other entities assess and enhance their internal control systems and control their activities toward the achievement of their established objectives. It however became clear that there is the need for a stronger framework to effectively identify, assess and manage risks. Therefore, in 2004, COSO again issued Enterprise Risk Management – Integrated Framework, which expands on internal control, providing a more robust and extensive focus on the broader subject of enterprise risk management. This Enterprise Risk Management – Integrated Framework provides key principles, concepts, a common language, clear direction and guidance for all organizations. This does not however replace the internal control framework, but rather incorporates the internal control framework within it and companies may decide to look to this enterprise risk management framework both to satisfy their internal control needs and to move toward a fuller risk management process (COSO, 2004).

According to COSO again, Enterprise Risk Management deals with risks and opportunities affecting value creation or preservation, defined as “a process, effected by an entity’s board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives” (COSO, 2004).

Fig. 2: Enterprise Risk Management-(ERM)



Source: 2004 COSO integrated framework

As shown in figure 2, the definition captures key concepts fundamental to how companies and organizations manage risks, providing a basis for application across organizations, industries and sectors. It focuses directly on achievement of objectives established by a particular entity and provides a basis for defining enterprise risk management's effectiveness. Among the components are:

Internal Environment: The internal environment has to do with the tone of an organization, which sets the basis for how risk is viewed and addressed by an organization's personnel, including risk management philosophy, risk appetite, ethical values, integrity and the environment within which an organization operates.

Objective Setting: Before management can identify potential events that could affect the achievements of the organization, it must first set objectives for the firm. Enterprise risk management makes sure that management has put in place a process to set objectives and that the chosen objectives support and align with the entity's mission and are consistent with its risk appetite.

Event Identification: It is important that internal and external events capable of affecting the achievement of the organization's objectives are identified, distinguishing between risks and opportunities. Opportunities are channelled back to management's strategy or objective-setting process.

Risk Assessment: Risk assessment is the determination of quantitative or qualitative value of risk related to a particular event if it happens. This involves analysis and evaluation. Quantitative risk analysis requires the calculation of two elements: the probability that the event will occur and the consequences of the event. It must therefore be analysed, taking into consideration likelihood and impact, as a basis for determining how they should be managed. It is assessed on an inherent and a residual basis. Those risks that exist and affect the organization before they are addressed and managed are known as inherent risks, while those risks that remain after an organization attempted mitigating inherent risks are called residual risks.

Risk Response: This is where management needs to decide on which risks to avoid, accept, reduce or transfer and develop a set of actions to align risks with the entity's risk tolerance and risk appetite.

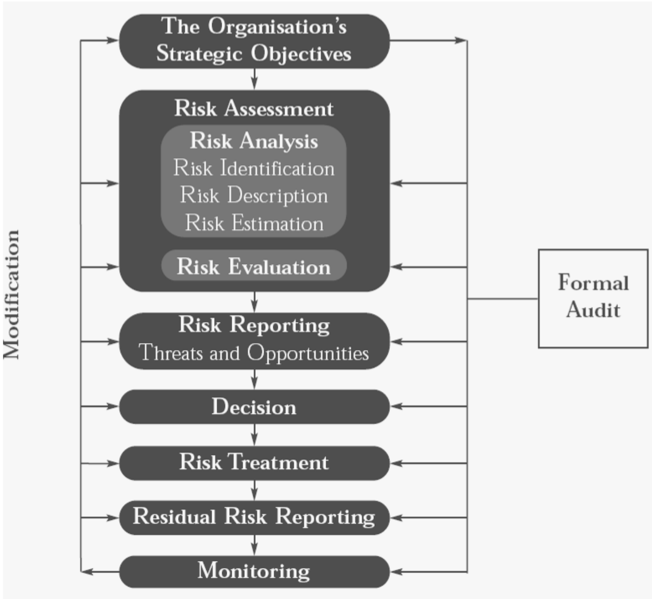
Control activities: Control activities such as operating review and reporting, authorization, verifications, approvals and division of duties should be implemented in order to try and avoid risks materializing.

Information and communication: Important and relevant information should be communicated in an appropriate and timely manner in order to enable employees to properly carry out their duties and responsibilities. The communication system should ensure that all information, positive and negative, reaches senior management without any delay.

Monitoring: The monitoring process involves assessing the quality of control systems over time. This may be accomplished through monitoring activities, separate evaluation or both.

From these definitions and discussions, it can be seen that risk management is an ongoing process for dealing with the possibility of loss. It aims to create a disciplined, structured and a controlled environment within which risks to the organization can be anticipated and maintained within predetermined and acceptable limits. Risk assessment is a continuous process requiring regular review as internal and external changes influence the company's strategies and objectives. Circumstances demanding close attention include substantive changes to the operating environment, new personnel, new or revamped information systems, rapid growth, new technology, products or activities, corporate restructuring, acquisitions, disposals and foreign operations. A framework for managing risks aims to assist an organization to manage its risks effectively through the application of the risk management process at varying levels and within specific contexts of the organization.

Fig. 3: The Risk Management Process



Source: IRM et el., (2002)

The risk management process is a continuous activity as illustrated in figure 3. The process involves these basic steps: understanding the mission of the organization, performance of risk assessment to identify the risks associated with the mission, categorizing and prioritizing the risks, design processes, training and checks (controls) for top level risks, monitoring internal control effectiveness and making improvements as required and repetition of the steps as shown in figure 3.

Understanding the mission of the organization is the first step to effective risk management. It is important that an organization clearly articulates its mission. In this way, risks associated with the mission can be easily identified. The next step is to start listing the risks. These risks could be categorized into human error, fraud, system or process weakness or problems and so on. Once the risks are listed, the company must then proceed to prioritizing these risks. It is unlikely that a company would be able to address all the risks listed; therefore it would be important that a company identifies high priority risks and focuses on them first. This leads to creating internal control systems that complies with Section 404 of the Sarbanes Oxley Act.

Even though this act is meant for companies in the United States, it purports to protect big and public listed companies all over the world (Holt, 2006).

Literature review revealed that trying to envisage, predict and prevent every single risk associated with a business activity can be difficult and exhausting. A company can therefore be successful in managing its risks by breaking it down into stages that are manageable. Companies must identify and mitigate high priority risks first and then continue to review, prioritize and address the rest of the risks according to the needs of the organization (IRM et al., 2002).

The risk management team, risk manager or internal control committee could rank the risks as risk1, risk 2, high-level risks, medium-level risk, low-level risk, et cetera. The idea is to first attend to all risks with the greatest probability of occurrence and greatest loss. However, the number of risks addressed at a time depends on the size and ability of the entity. The next step is to find the best way of mitigating these risks. A well-defined process is then used to minimize the risks and then communicated to all personnel at all levels of the organization through procedures, policies, instruction and training. Finally, these processes should be monitored on regular basis to make sure that they are functional and effective. Corrections are then made as and when necessary. The company then repeats the risk assessment or risk management process so as to attend to the next level of risks.

The issue of risk management strategy is also very crucial and fundamental to effective risk management. This is because it provides barriers against an accumulation of exposures inherent in ongoing business activities (Chorafas, 2008). Companies need risk management strategies in order to be successful at risk management. It helps management to identify and decide which risks to avoid, control, transfer to another party such as an insurance company or which risk to tolerate, that is accepting some or all the consequences of a particular risk. The focus of good risk management is the identification and treatment of these risks. Its objective is to add maximum sustainable value to all the activities of the organization. This activity must also be realistic, practical and cost effective.

2.3 INTERNAL CONTROL AND INTERNAL CONTROL SYSTEMS

Internal control is the whole system of internal controls, financial and otherwise, established in order to provide reasonable assurance of: (a) effective and efficient operation; (b) internal financial control and (c) compliance with laws and regulations. While internal control systems include all the policies and procedures (internal controls) adopted by the directors and management of an entity to assist in achieving their objectives of ensuring, as far as practicable, the orderly and efficient conduct of a business, including adherence to internal policies, the safeguarding of assets, the prevention and detection of fraud and error, the accuracy and completeness of the accounting records and the timely preparation of reliable financial information (CIMA, 2006).

A strong internal control is one of the best defences against business failures and an important driver of business performance. Therefore the usual question that is asked when a vibrant organization suddenly goes bankrupt is "what went wrong"? The answer points to weak controls most of the time. After assessing key risk areas of an organization, these risks would need to be managed in line with a defined risk management strategy. One major component of this strategy is appropriately derived internal controls that seek to mitigate unacceptable levels of risks. Each control will address a defined risk or be part of a regulatory requirement that in turn addresses the risk of breaching laws, procedures and rules.

The well known definition for internal control all over the world is given by COSO and according to it: "Internal control is broadly defined as a process, effected by an entity's board of directors, managers and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

- Effectiveness and efficiency of operations.
- Reliability of financial reporting.
- Compliance with applicable laws and regulations."

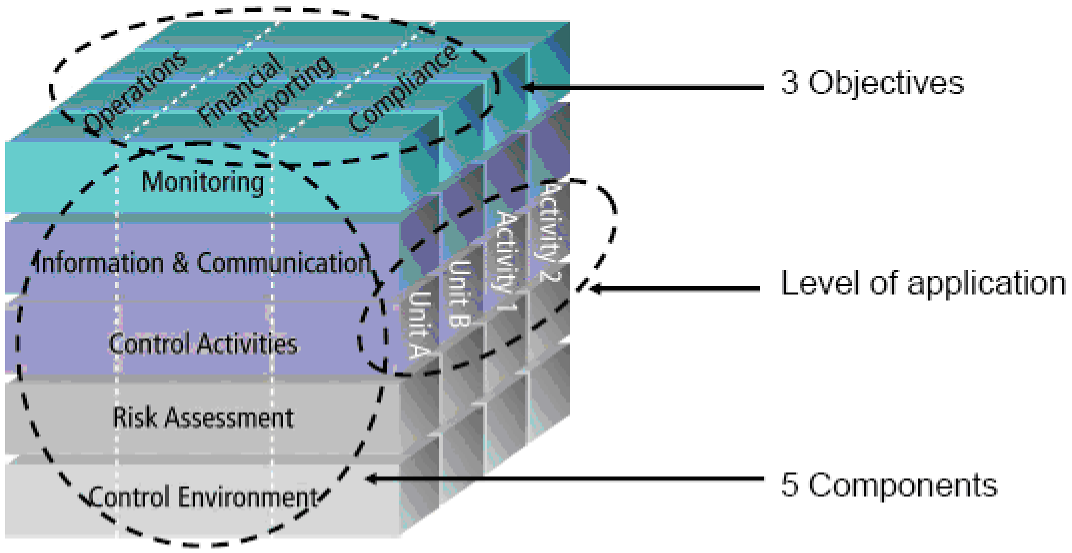
According to the COSO framework, internal controls are put in place not only to help companies reach profitability goals and achieve their missions, but also to minimize surprises along the way. An internal control system enables management to deal with quickly changing economic and competitive environments, market changes such as shifting customer demands and priorities and restructuring. So what then is internal control? There seems to be no distinct answer to this question. It could mean different things to different people, which could be a factor of confusion among business people, legislators, regulators and others. Misunderstandings and different expectations could easily lead to problems within organizations and these problems could get even more apparent when the term, if not clearly defined, is written into laws, regulations and or other official documents. The COSO report deals with the needs and expectations of managers and others and describes internal control in order to establish a common definition that serves the needs of different parties and to provide a standard against which organizations can assess their control systems and determine how they can be improved. According to the report everyone in the organization is responsible for the internal control, yet in different ways. Management is responsible for the establishment of internal control policies and procedures. Management is again accountable to the board of directors, who is responsible for providing governance, guidance and oversight and all personnel are responsible for reporting problems, such as policy violations or illegal actions.

Traditionally, the accounting profession's definition of internal control was focused on financial reporting and compliance aspects of control. However, the definition provided by AICPA in 1949 includes operational, financial reporting and compliance aspects of internal control (Mautz and Winjum, 1981). This definition was amended in 1958 and 1972 successively and then separated these controls into accounting controls and administrative controls. AICPA directs accountants and auditors' attention on traditional accounting controls such as authorization, segregation of duties, cross-checking, in order to minimize litigation risks. This narrows the focus of control. The reason(s) for restricting accountants and auditors' responsibility to accounting and administrative controls is much of a debate.

As a result of technological advancements and changing management techniques, organizations employ less people and are therefore less able to perform many internal accounting controls, for example, layers of authorization, cross-checking, segregation of duties, supervision et cetera. A range of control elements are therefore required in order for internal controls to be effective.

The COSO framework (see figure 4) shows three objectives: Operations (which has to do with how effective and efficient an entity uses its resources), Financial Reporting (which deals with the preparation of reliable financial statements) and Compliance (which relates to an organization's compliance with applicable laws and regulations). The framework also identifies five basic control components: Control Environment, Control Activities, Risk Assessment, Information and Communication, Monitoring and the different units of application. The objectives show what an organization strives to achieve and the components show what is needed to achieve these objectives at different levels of the organization. All the components are related to each objective. For example, when talking about the reliability of financial reporting, all the five components must be present and functioning effectively in order to conclude that an organization's internal control over reliable financial information is effective.

Fig. 4: The COSO Internal Control



Source: Adapted from the 2004 COSO

Effective internal control requires a strong control environment under which the other components are implemented. The principles underlying good control and commitment to sound control compliance must be present so as to ensure healthy interactive control structure. Risk assessment forms the basis for determining where internal control activities are needed. This enables the organization to focus on those risks that will impact on the overall success of the firm. Communicating information resulting from the exercise of internal controls keeps key personnel and management informed of potential problems. An effective monitoring system is an ongoing assessment programme that oversees the design, implementation and effectiveness of controls in mitigating risks.

Internal control must also be tailored to meet the needs of the individual business. This is because the more elaborate an organization's control systems, the greater the cost (IRM et al., 2002). The scandals of recent years emphasized the need to evaluate, scrutinize and reformulate control systems of checks and balances in order to guide corporate executives and persons in decision-making. Therefore as much as an organization would like to implement appropriately derived control measures; it must also consider the amount of money involved in implementing such measures.

Finally, there is the need for companies to have a risk protection strategy (Chorafas, 2008). Insurance is known to be one of the methods used by companies as risk financing in order to obtain financial protection against the impact of risks. However, it must be noted that losses such as organizational reputation and employee morale are uninsurable and difficult to regain once they are lost. Therefore, organizations must put in effort to maintain their reputation and goodwill.

2.3.1 RISK MANAGEMENT VERSUS INTERNAL CONTROL SYSTEMS

There is a misunderstanding as to whether risk management is a sub-division of internal control or vice versa or they go together. The management of risks is very important and significant to the achievement of business objectives and therefore plays a key role in a company's system of internal control and corporate governance. Leitch (2004) published an article on Risk Management versus Internal Control. In this article, he noted that there is no difference between these to topics in principle. He went on to point out that the scope of each phrase seems to be getting wider. However, there are big differences in emphasis, with many practical implications. In the researcher's opinion, the management of risks and their control measures are inseparable. First, risks must be identified, assessed, then managed and mitigated by putting in place or implementing a strong system of internal control. As a result of separation of ownership from control, both the corporate world and governments turn to risk management and internal controls to give calm and reassurance (Collier et al., 2007).

2.3.2 INTERNAL AUDIT AND AUDIT COMMITTEE

Under the principles of good corporate governance, internal audit and audit committee are very important to the operations of an organization, as they ensure the management of regular and adequate performance of internal control, seeking deficiencies, weaknesses and enhancing more efficient operations. Internal control office reports directly to the Audit Committee for the purpose of complete system of checks and balances. For the time being audit committees are not compulsory in Norway (Skogstad Aamo, 2004).

Ordinarily, the internal auditor does not get involved in any decision making process on risk management. It is felt that in the case of risk management it would be prudent for the internal auditor to have a say. The internal auditor only ensures that risk management practices adopted by the concerned departments are adequate, considering the nature of various risks and their likely impact on the business operations of the company. In a large company, different departments, depending on the nature of risk involved, may handle the risk management function. It would therefore be necessary for the internal auditor to first get a fair idea of the various categories of risks and action to be taken to confirm that enough safeguards are put in place for managing these risks. In the case of other risks like environmental and technological risks, the internal auditor may not have an expert knowledge of the severity of the risks and would have to get help from the concerned departmental heads to critically examine the process of the risk management. It would also be necessary for the internal auditor to weigh the impact of all these risks on the financial performance of the company and make a suitable report to the board of the company.

2.4 CORPORATE GOVERNANCE

There is the need to talk about corporate governance; this is because risk management is a key element of corporate governance and overall internal control of a company (Collier et al., 2007). Corporate governance is the umbrella concept that drives a control and reporting framework, which in turn depends on risk management and an efficient system of internal control. Although corporate governance can be defined in a variety of ways, it generally involves the mechanisms by which a company is directed and controlled (NUES, 2009). Globally, demand for improved corporate governance has been a feature of the last decade, as a result of several and prominent bankruptcies resulting from non-compliance with rules and internal controls.

Companies whose securities are admitted to trading on a regulated market, for example the Oslo Børs, are obliged to disclose an annual corporate governance statement as a special and clearly identifiable section of the annual report (NUES, 2009). In this statement, key information about governance practices, including the description of the main features of any existing risk managements and internal controls in relation to the financial reporting processes are to be mentioned. That is to say that information concerning the company's risk management systems and internal control systems should be presented and commented on.

While reading the annual reports of the company under this research, DnB NOR ASA, for the years ended 2007, 2008 and 2009, the researcher observed that the company has disclosed their risks. However, the level of disclosure and contents differ mainly because of changes in operations, so also the associated risks and their control measures (DnB NOR ASA Annual Report, 2009).

Listed companies manage a significant proportion of a country's assets and generate a major part of value creation. It is therefore in the interest of society as a whole that companies are directed and controlled in an appropriate and satisfactory manner. There is international competition to attract the interest of both Norwegian and international investors and this makes it essential that Norwegian companies and the Norwegian stock markets are seen to maintain high standards in the area of corporate governance.

For investors' confidence to be increased there must be good corporate governance in place. It increases trust and provides an accountability structure for management. The standards for risk management makes it clear that good corporate governance requires organizations to adopt a methodical approach in their risk management which will in turn ensure management controls, monitor performance and protect the interests of stakeholders.

2.4.1 HOW RISK MANAGEMENT AND INTERNAL CONTROL SYSTEMS WORK IN NORWAY

Good governance is dependent on management that understands the risks it faces and is able to keep control of the business. NUES which was launched in 2004 and has subsequently been updated recently in 2009 makes clear the responsibilities of board of directors and management. According to the Code, corporate governance regulates the division of roles between shareholders, board of directors and executive management beyond the requirements of the legislation. Section 10 of the code is on risk management and internal control as shown in table 1. The regulation cover the board of directors' responsibilities for determining risk profile, approving the organization's operations, delegating responsibilities, assigning authority and also stipulating reporting and internal control requirements (NUES, 2009).

Table 1: Risk Management and Internal Control

The board of directors must ensure that the company has sound internal control and systems for risk management that are appropriate in relation to the extent and nature of the company's activities. Internal control and the systems should also encompass the company's corporate values and ethical guidelines.
The board of directors should carry out an annual review of the company's most important areas of exposure to risk and its internal control arrangements.
The board of directors should provide an account in the annual report of the main features of the company's internal control and risk management systems as they relate to the company's financial reporting.

Source: NUES, 2009

2.4.2 IMPORTANCE OF RISK MANAGEMENT AND INTERNAL CONTROL SYSTEMS

Risk is defined as the combination of the probability of an event and its consequences (IRM et al., 2002). According to ICAEW (1999), risk is defined as real or potential events which can reduce the likelihood of achieving business objectives. The term involves the potential for both gain and exposure to loss. Risk management and internal controls are means by which businesses' opportunities are maximized and potential and material losses are reduced.

An organization sets strategic and operational objectives and then manages the risks that threaten these objectives. Internal control is put in place to help manage risks and increase shareholders' value. Risks can be managed by transferring them to third parties such as an insurance company. The environments in which organizations operate are evolving constantly and as such, the risks facing these organizations change too. Therefore, a company's systems of risk management and internal control must be responsive to these changes in order to be successful. Important elements of a sound internal control system are effective financial controls, including the management of proper accounting records. Since risks exposed to a company cannot be completely eliminated, the role of internal control is to help manage and control these risks appropriately. They make sure that organizations are not exposed to avoidable risks and that financial information received and used both in the company and by the public is accurate and reliable. Therefore, a company's internal control systems play a key role in the management of risks that significantly affect the achievements of operational, financial reporting and compliance objectives.

2.4.3 PROBLEMS RELATED TO RISK MANAGEMENT AND INTERNAL CONTROL SYSTEMS

In spite of modern business planning models and methods adopted by many organizations, risk assessment is performed non-systematically and intuitively and the risk management plan is not prepared at all (Collier et al., 2007). Due to this, problems are solved once they arise, usually rather too late. Notwithstanding the notion of risk as an event having a potential negative impact on business objectives, an integrated risk management system is to assess positive outcomes as well. In view of risks exposed to business goals, organizations develop and implement systems of internal controls, which act as preventive measures. It is therefore important to assess whether internal controls that are put in place and the related risks are adequately linked. Companies face lots of challenges when it comes to risk management and the implementation of internal control systems. Among the problems are lack of technical knowledge; the process of risk management lacks a clear definition and has a low level of formalization, managers and individual units of the organization have different understanding of risks and their assessment criteria, high cost of information and high costs attributed to internal controls exceed the impact of a respective risk, processes of achieving compliance with external requirements (namely, those set by supervisory bodies, a controlling company, et cetera) are expensive and sometimes ineffective.

CHAPTER THREE

3. METHOD

This chapter explains how the researcher chose the topic for this thesis, the choice of company and the course of action concerning the information gathering. By doing this, the reader would be given an insight into the choices made and how these choices affect the results to be presented later on.

3.1 TOPIC SELECTION PROCESS

The subject of internal control systems is not new to me since I have prior knowledge of this from my undergraduate project work. However, the topic of risk management and internal control systems as a topic was introduced to me in my master course Bed 3015**,** Selskapsrett og Corporate Governance by Bjørn Sælen, one of my lecturers for that topic. He had a number of lectures on the topic and they caught my attention especially following the recent corporate fraud and accounting scandals. He also later recommended that I read NOU 2008:16. After reading the pages on Corporate Governance, I realized that the issue of risk management and internal control is an interesting topic to write on and I therefore chose it as the subject for my thesis.

3.2 CHOICE OF SECTOR

A company listed on Oslo Børs is chosen as the study object. Oslo Børs has divided its companies into the following branches: Energy, Materials, Industrial, Consumer, Consumer goods, Health, Financial, IT, Telecom, Utilities. Out of these branches, the researcher chose the financial sector.

3.3 THE CHOICE OF COMPANY

DnB NOR ASA is a bank in the financial sector and it is among the largest domestic companies by market value at the end of 31.12.2009 (Oslo Børs Statistics, 2009). This company is also among the leading companies which attract investors from all over the world. The recent financial crisis, news about this sector, the company and the researcher’s own interest in this sector of the Norwegian economy, led to the choice of DnB NOR ASA as the case study.

3.3.1 THE FINANCIAL SECTOR

The financial industry or sector encompasses a broad range of organizations that deal with the management of money. Among these organizations are banks, credit card companies, consumer finance, investment funds, insurance companies, stock brokerages and some government sponsored enterprises. The researcher is interested in this sector because an effective financial system is the foundation for building a sustainable economy. The more developed a country's financial system, the greater the economic investment and growth of that country (Patrick, 1966). Companies, businesses and people need to raise money and the financial sector exists to allow them to do so. Among the reasons given for the current financial crisis is a widespread mismanagement of financial risks by firms engaged in originating, distributing and investing in mortgages, mortgage-backed securities and derivative financial instruments. The sector has a special role, as it mobilizes resources and allocates them to those investments that are capable of generating the highest return on capital. The better the financial sector can fulfil this role, the better the economy will perform in the long run.

3.4 INFORMATION GATHERING

The study relied on both primary and secondary data for the necessary information. Primary data is material that authors collect themselves, while secondary data is material that others have collected earlier (Bryman and Bell, 2007). The basic technique used in collecting the primary data is the questionnaire. Secondary data was collected via books, articles, journals, publications, audited annual reports of the company under this study and internet sources of related materials. The study was also guided by both qualitative and quantitative research methodologies. The qualitative method's objective is to create a deeper understanding of the problem that is being investigated (Andersen, 1998). There is also the need to use quantitative approach especially in analysing the impact of risk management and internal control systems on the performance and profitability of the company. This study is explorative, descriptive and explanatory in nature as the researcher will be exploring, describing and explaining the topic of risk management and internal control systems in the financial sector of the Norwegian economy.

3.5 RESEARCH METHOD

In order to develop a deeper understanding of the role of the different types of control measures and their impact on performance of the organization, the case study method was adopted for this research. As quoted by Eisner (2001), Stake (1978), confirms that it is good to adopt case studies for explorative research, where an inductive method can be adopted by using theory to explain empirical observations. The usefulness of case-based research has been explicitly recognized by researchers in the field of management accounting practices (Scapens, 1990).

3.6 DATA COLLECTION

This section explains how data was collected.

3.6.1 THE PRIMARY DATA

Primary data has mainly been used in order to increase the understanding of the questions that came up in this work. In order to collect primary data, questionnaires were sent to a number of people in the company, people who could provide information considered relevant to the study. The questionnaires were sent to personnel in the field of account/finance, internal audit, administration, human resource and in the field of insurance.

Primary source of data was chosen because it provides first-hand information to the researcher. It is original, it is collected for a specific purpose and it is used to solve a specific problem. Not only does primary source of data enable the researcher to focus on specific issues but it also enables the researcher to have a higher level of control over how the information is collected. However, it is expensive and time consuming. Many are just too large to be carried out and are therefore not feasible at all (Bryman and Bell, 2007).

3.6.2 DESIGN OF THE QUESTIONNAIRE

The idea behind the questionnaire was to get more information on the topic for this thesis. Against this background the questionnaire was designed to help ascertain information on the risks affecting the company, risk management, how risks are identified, evaluated and the systems of control used to mitigate these risks in the company. The questions were compiled based on a combination of the researcher's knowledge and questionnaire adopted and revised from PricewaterhouseCoopers. The questionnaire was divided into four sections. Section one was on the general background information of the respondents, section two contained seven parts on risk management, section three was on internal controls, which was also divided into five parts and section four contains open-ended questions on compliance with company policy and statutory laws and overall governance.

As indicated earlier, the topic of risk management and internal control systems is very wide and therefore the questionnaire did not cover all the areas of the topic. One of the objectives of the questionnaire was to make it easy and quick to complete. Another objective was to help respondents maintain interest whilst completing it.

3.6.3 THE QUESTIONNAIRE

A semi structured questionnaire was prepared that contains both close-ended and open-ended questions. Semi structured questions were used because the researcher did not follow any particular order and it comprises formal questions framed and stated to suit the research objectives. The questionnaire was sent to my contact person in the company in advance through an e-mail in order to be time-efficient. The contact person then passed them on to persons who were suited for the questions. In the researcher's opinion, this allowed the respondents enough time to think through before providing answers to these extensive questions. This is positive on one hand. On the other hand, this approach might have given respondents too much time to prepare and therefore took away all forms of spontaneity.

3.6.4 THE SECONDARY DATA

Secondary data collection started through a search on the internet for information on the subject by looking at different sites that have been brought to my attention. These led to other sites of relevance. The researcher used different navigators like bibsys (http://ask.bibsys.no/ask/action/smpsearch), www.googlescholar.com and www.google.com to search for information on key words such as internal control, risk management and names of relevant authors and professors related to the concept. The findings led to different books, journals, articles and other publications. Some of these books are published on the internet and others are available in libraries. It was difficult however to find books that deal specifically with my topic. This is why the researcher had to talk to experts in the area, in order to get all the materials needed for this thesis.

The researcher chose the secondary source of information because of its advantages. The main advantage of the secondary data is that it saves time and cost. The data is of high quality, it offers the researcher more time for data analysis and reanalysis may offer new interpretations. However, lack of familiarity with secondary data is a problem. Also, most of these data are outdated, complex and there is no control over their quality (Bryman and Bell, 2007).

3.6.5 PERSONAL CONTACTS

The researcher contacted Mathew Leitch through an exchange of email. He is the author of Risk Management versus Internal Control, among others. The reason for the contact was to get more information relating to the subject of risk management and internal controls. The researcher also contacted Finansdepartementet - Norway through Stig Sollund the secretary, who provided information vital to the topic. Again, the researcher talked to Roar Hoff, head of Corporate Risk Management in DnB NOR ASA for other information concerning the risk areas of the company.

3.7 METHOD OF DATA ANALYSIS

This section will focus on the actual analysis and discussions of the data collected. This involves discussion of the steps involved in analyzing the data collected from the questionnaire. The researcher did a literature review, questionnaire design and data analysis in order to get a good result. A thorough and systematic examination is important in order to accomplish a good result (Andersen, 1998). The main technique that is used is qualitative and quantitative methods of analysis.

3.7.1 RELIABILITY

Reliable data is determined by how the measures are conducted. For the measures to be reliable, it is important that the researcher is accurate. For reliability to be high there must also be a description of how the measures were conducted and that they were precise and accurate. Another requirement is that the researcher documents everything done. This is because in retrospect other researchers will be able to use the data gathered for comparison purposes. In short, reliability is how consistent a researcher's measurements are (Cook and Campbell, 1979). When it comes to the analysis of the data collected for this study, the researcher can say that other interpretations may provide other outcomes since questionnaires were carried out, because other researchers may get different answers from the respondents even though they have used the same questionnaire due to changes in the operations of the company, new rules and regulations but the data is processed accurately

3.7.2 VALIDITY

Validity of data is determined by the strength of conclusions, inferences or propositions (Cook and Campbell, 1979). Data is measured in order to have relevance and validity for the issue that is examined. It is about finding out if the data collected or gathered is relevant to the problem being investigated and whether the survey conducted provided an answer to the problem. In this study the researcher will say that the theoretical understanding of risk management and internal control is the same as in the operational sense and to that extent, there is consistency between these. The researcher sees clear connection between the theoretical and practical notion of risk management and internal control and for that reason can say that she had valid data.

CHAPTER FOUR

4. STUDY POPULATION

The research is carried out on DnB NOR ASA, a company in the financial sector and listed on Oslo Børs. Since the population of listed companies on the market will be too large to study, the researcher purposely targeted and chose DnB NOR ASA in the financial sector by using a purposive sampling method.

4.1 OSLO BØRS

Oslo Børs serves as the main market for trading in the shares of Norwegian companies. In addition to a wide range of domestic companies, the OSE attracts a lot of international companies within petroleum, shipping and other related areas. The Exchange started as Christiana Børs in 1819. In the beginning, there was no organized listing or stock exchange; the exchange only served as a meeting place for investors auctioning ships, shares in ships, commodities and foreign currencies. The Exchange started trading in stocks and bonds in 1881 and remained a self-owning institution until 2001 when it converted into a joint stock company and offered shares to the public in Initial Public Offering (IPO), also referred to simply as a "Public Offering". DnB NOR ASA now owns 18% of the company, with the rest of the shares held mostly by many domestic and foreign investors.

The decision to do a research on a listed company is because listed companies are subject to stricter requirements than unlisted companies and this gives investors greater confidence in investing in listed shares. The financial sector of the Norwegian economy is chosen for the purpose of this master thesis. Why the sector was chosen for this study has been explained in detail in chapter three.

4.2 RISKS AFFECTING THE FINANCIAL SECTOR

Most countries, even those which have experienced rapid success have suffered from financial crisis, interrupting the growth process of their economies and sometimes setting them back. In addition, heightened risks at the level of the individual firm and households have reinforced the role of financial instruments and markets for the hedging and management of risk at the micro level. This is why risk management, including crisis prevention, remains a central part of the financial agenda of most countries, hence my research in this sector.

In the financial institution, enterprise risk management is the combination of credit risk, interest rate risk or asset liability management, market risk and operational risk. While according to RBICRMS (2001), banks are to consider the following risks within the framework of this regulation, although not totally limited to these fourteen:

- **Credit risk**- this risk arises from lending activities as counter-party defaults or fails in fulfilling his obligation wholly or partially.
- **Market risk**- this is the risk financial institutions face as a result of the volatility of income or market value due to fluctuations in underlying market factors such as currency and interest rates.
- **Liquidity risk**- an institution's failure to meet its commitments results in liquidity risk. That is, when an institution fails to have cash amount or cash inflows at a certain level and quality that enables it to meet its cash outflows fully and timely because of imbalances in the cash flow.
- **Operational risk**- this is the risk that arises from errors and omissions caused by breakdown in the internal controls of a bank. Risks arising from the failure on the part of a bank's management and personnel to perform on time, or mistakes made by an institution's management, or breakdowns and failures in information technology system, fire breakouts and major earthquakes.
- **Interest rate risk**- the risk of loss that a bank is exposed to due to changes in interest rates.
- **Legal risk**-risks arising due to the situation where obligations are higher or rights are lower than what is thought of and assumed due to insufficient or incorrect legal knowledge of operations.
- **Reputation or Business risk**- this is the risk an organization faces if it fails to comply with prevailing rules and regulations, diminished creditworthiness and impaired reputation resulting from failures in business practices.

- **Country risk**- this risk is a cross-border transaction risk where a borrower is unable to fulfill his obligations due to adverse economic, social or political situations in his country.
- **Settlement risk**- an institution faces this risk where underlying financial instruments or funds are not delivered on time by the counter party.
- **Regulatory risk**- an institution faces this risk arising from violation and non-compliance with laws and regulations and legal obligations.
- **Pre-settlement risk**- this is the result of failure on the part of a counter party to complete a future or an outstanding transaction.
- **Transfer risk**- the inability of a borrower to fulfill his obligation on payment of his foreign currency denominated debt in the original currency or in another convertible currency due to legal and adverse economic situation of his country.
- **Market liquidity risk**- this is the risk that occurs when a generalized disruption in asset markets make normally-liquid assets illiquid.
- **Funding liquidity risk**- this risk is as a result of failure to meet funding requirements at a reasonable cost, due to cash flow mismatches and maturity mismatches.

4.3 THE CASE STUDY

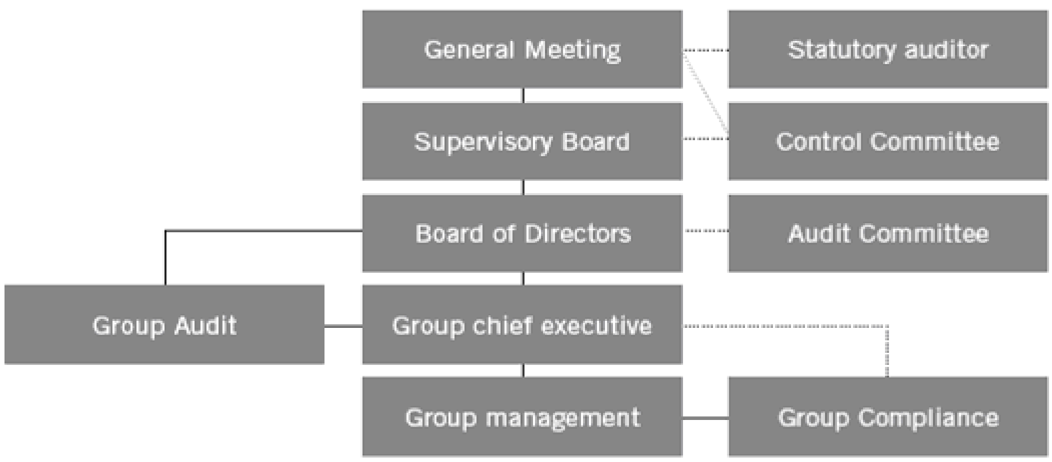
A case study is a research strategy not a methodological choice, but a choice of object to be studied (Stake, 1978). It is a research design and it examines a phenomenon in its natural setting, employing multiple methods of data collection to gather information from one or a few entities (people, groups, or organizations) according to Kaplan (1985). Case study research means single and multiple case studies and it could be based on any mix of quantitative and qualitative evidence.

DnB NOR ASA is a Norway-based financial services company and Norway's largest bank, offering services to the corporate and securities market and the public sector. It is a parent company within DnB NOR Group, engaged in the provision of financial products and services through its national and international operations. Domestically, the group has an investment bank DnB NOR ASA Markets, a financial company Cresco, an insurance company Vital which is a provider of life insurance products and pension savings, a real estate agency DnB NOR ASA Eiendom and DnB NOR ASA Asset Management, which operates as a financial manager for institutional clients in Norway and Sweden. The company is owned by both the Norwegian Ministry of Trade and Industry (34%) and Sparebankstiftelsen DnB NOR ASA (10, 95%), who are the two largest owners and has its head office located in Oslo.

The latter (Sparebankstiftelsen) was created as a foundation with the sole purpose of owning part of the company. It was created when Gjensidige NOR was made a public limited company to ensure that the company's customers retained partial ownership of the company. The foundation also gives up to 25% of its received dividend as gifts to charity.

The bank was established in 1892 as Christiania Sparebank. The present corporation consists of mergers between Christiania Sparebank, Gjensidige (1847), Bergens privatbank (1855), Den Norske Creditbank (1857), Fellesbanken (1920), Bergens Kreditbank (1928), Postbanken, Vital and Nordlandsbanken. The current name of the bank stems from 2003, when the two banks Den Norsk Bank (DnB) and Gjensidige NOR merged. The group is one of the largest shipping banks and a major intermediate player in the energy sector. It is in the industry of financial services and therefore provides banking and insurance services. At the end of 2009, the company had total combined assets of more than NOK 2,0 billion, total assets of NOK 1.823 billion, an operating profit of NOK 8.585 billion and 13 317 full-time employees, represented in more than 218 locations in Norway. It has an international network of 27 branches and representative offices in Finland, Denmark and multiple offices in Sweden. DnB NOR ASA also had a market capitalization of NOK 102 billion at the end of December 2009.

Fig. 5: Management in DnB NOR ASA



Source: DnB NOR ASA Annual Report 2009

The principles and models of management of DnB NOR ASA are based on the Norwegian Code of Practice for Corporate Governance. In order to minimize risk factors, such as damage reputation and loss of confidence, the company has put in place governance and management systems that help ensure and safeguard the institution impartially.

Sections 10 and 13 of the company's annual report is on risk management and internal control and information and communications. Annual review of the most significant risk areas within the group is always carried out. DnB NOR ASA regards sound risk management as a strategic tool to enhancing value creation. It considers internal control as a means of ensuring effective operation and prudent risk management. The bases of the group's work within risk management and internal control is based on the principles in the framework from COSO (see figures 2 and 4). Its organizational structure also ensures independent risk reporting.

4.3.1 RISK AREAS OF THE GROUP

For risk management purposes, the bank distinguishes between the following risks: credit risk, market risk, liquidity risk, market and insurance risk in life insurance, non-life insurance risk, operational risk and business risk. These risks are measured by calculating what it calls risk-adjusted capital. It is a measure that represents estimated capital requirements relative to the risk of loss associated with the various business operations. This helps the bank to compare risk across the risk categories and business areas, as shown in table 2. Diversification effect then occurs where the group tries to reduce its risk by operating within several risk categories and where unexpected losses are unlikely to occur at the same time. The group's risk-adjusted capital becomes much lesser than if the business areas had been independent companies due to the diversification effect.

Table 2: Quantified risk-adjusted capital table.

Development in the risk-adjusted capital			
Amounts in NOK billion	31 Dec 2009	31 Dec 2008	31 Dec 2007
Credit risk	50.9	59.2	42.6
Market risk	3.7	4.2	3.6
Market and insurance risk in life insurance	10.5	7.1	8.5
Non-life insurance risk	0.5	-	-
Operational risk	7.2	6.7	5.2
Business risk	4.1	3.7	2.5
Gross risk-adjusted capital	76.9	81.0	62.4
Diversification effect	(14.8)	(12.9)	(13.6)
Net risk-adjusted capital	62.1	68.1	48.8
Diversification effect in per cent of gross risk-adjusted capital	19.3	15.9	21.8

Source: DnB NOR ASA Annual Report 2008 and 2009

Comment 1

Earlier on the researcher mentioned that the banking sector is exposed to fourteen risks, although not totally limited to these, according to RBICRMS (2001). However, only five out of these risks and two additional risk areas have been mentioned in the audited annual reports of DnB NOR ASA as shown in the quantified risk-adjusted capital table but without liquidity risk. The researcher needed explanation as to why the rest of the risks are not mentioned in the annual reports of the bank. The researcher therefore contacted the head of Corporate Risk Management, Roar Hoff. He acknowledged the fact that the bank is exposed to all these risks. However due to cost and time constraint, the bank has strategized to group these risks.

Comment 2

Development in the risk-adjusted capital table (see table 2): in the 2007 and 2008 annual reports, the company had a risk area called Ownership risk for Vital. This is now known as Market and insurance risk in life insurance, as shown in table 2 and a new risk area known as Non-life insurance risk has been added to the list of risks in table.

4.3.2 RISK MANAGEMENT IN DnB NOR ASA

In DnB NOR ASA, monitoring and managing risks is an integral part of its financial operations. Sound risk management is therefore a strategic tool used to enhance its value generation. The structure of the organization also ensures independent risk reporting. In short, the group's risk management has the overall responsibility for risk management and internal control and for assessing and reporting the company's overall risk situation.

Credit risk: The Board of Directors has approved and put in place a credit strategy in all business areas carrying credit risk. This involves a credit approval authorization. A two-layered decision-making procedure is put in place for large credits. Credit approval authority lies in the hands of the respective business units and it is approved by the Group Credit Risk Management.

Market risk: DnB NOR ASA Markets is responsible for all trading activities. Limits for market risk, determined by the Board of Directors are reviewed once a year. A guiding principle is set for the sum of limits for foreign exchange, equity and commodity risk and interest rates. An independent unit is also established with the responsibility of checking limits and results on a daily basis by following principles, methods and follow-ups.

Liquidity risk: The management of operational liquidity lies in the hands of the bank's Treasury Function. The responsibility for establishing principles and limits for the liquidity management and for arranging long-term funding lies with the IR and the LTU organized under the Group's Finance and Risk Management. To be able to manage liquidity risks, DnB NOR ASA maintains a diversified funding structure which involves a broad deposit base for both retail and corporate customers. In this strategy, a number of funding programmes have been established in different markets, for example, a commercial paper programme of USD 14 billion in the US and a commercial paper programme of EURO 10 billion in Europe.

Market and insurance risk in life insurance: This risk is where return on financial assets of the company will not be able to meet the obligations specified in the company's insurance policy and risk related to changes in future insurance payments, as a result of changes in life expectancy and disability rates. The risk situation in Vital in relation to the Group's overall risk profile is reviewed regularly by the Group's ALCO. For nominal amounts, limits for financial risk are stipulated annually and limits have been set for each asset class and concentration risk relative to individual issuers. Separate limits have also been put in place for derivatives. A unit for analysis, control monitors and follow ups, limits and guidelines for Vital is also in place. Minimum capital requirement determined by the Kredittilsynet is also put in place to manage market risks. The strategy for capital management is to help reduce variability in earnings.

Non-life insurance risk: This risk is known as DnB NOR Skadeforsikring (insurance) which includes insurance, market and credit, operational and business risks. The organization is exposed to market and credit risk in investment operations and therefore it is the risk of losses if insurance premiums fail to cover future claim payments. In order to manage this risk effectively, the Board of Directors has established a strategy and principles for market and insurance risk, including the premises for the company's reinsurance hedging. Here, the total risk is geared to the capital base through the reinsurance programme. This programme contributes to profit equalization by hedging catastrophic risks. The company also has investment plan through which credit and market risks are managed. This risk is always monitored by tracking profitability on all products and their claims reserve and reviewed on a quarterly basis.

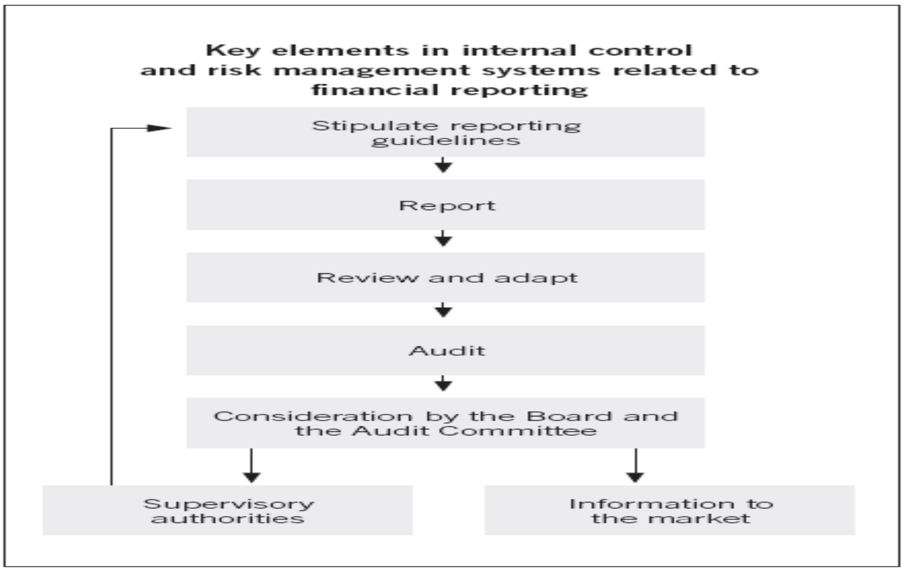
Operational risk: A framework for the management of operational risk has been determined by the Board of Directors. Guidelines for the responsibilities, organizational aspects and working methods necessary for the management of this risk have been established. It is required that managers have sound knowledge of operational risk within the respective areas of responsibility. Contingency and business continuity plans have been worked out which is tested and updated regularly. Special groups have been established with the responsibility of monitoring and reporting identified risks. These groups are also given the responsibility of making sure that the bank complies with relevant laws and regulations. Quarterly reports on the status for this risk are given to the Board of Directors.

Business risk: This risk is also called reputational risk. DnB NOR ASA considers sound strategic planning as the key tool to reduce business risk. It is managed by making sure that there is an active commitment to corporate social responsibility and code of ethics for employees so as to have a positive impact.

4.3.3 INTERNAL CONTROL IN DnB NOR ASA

Internal control is considered to be an instrument in handling risks that could prevent the group from attaining its targets. It is also acknowledged in the organization that internal control ensures effective operations, high quality internal and external reporting, together with group compliance with related laws, regulations and internal guidelines, including the company's value and codes of ethics. The company believes that independent and effective audit ensures satisfactory internal control as well as reliable financial reporting. The group audit carries out independent assessment of risks and checks on group activities. The result is then presented to the Board of Directors of the relevant companies in the DnB NOR ASA group, the holding company's Board, the Audit committee and the group management.

Fig. 6: Risk management and internal control and information and communications



Source: 2008 Annual Report, Sections 10 and 13

Work within risk management and internal control for the group is based on the underlying principles in the COSO framework. The group complies with relevant laws, regulations and internal guidelines including the company's values and code of ethics. The organizational structure aims to ensure independent risk reporting as shown in figure 5.

The Board of Directors ensures and maintains a low risk profile. The company's ability to identify, manage and accurately rate risks exposed to their services aids its profitability. The group's Chief Executive is responsible for implementing risk management measures; develop effective risk management systems and internal control. However, the overall responsibility for risk management and internal control, assessing and reporting overall risk situation lies in the hands of the group's Finance and Risk Management. When it comes to implementation and monitoring, individual managers ensure that they are well acquainted with all material risks within their respective areas of responsibility and also make sure that the management of such risks is financially and administratively sound.

Comment

Even though it is stated that DnB NOR ASA's work within risk management and internal control is based on the principles in the framework of COSO, all the elements are not implemented. By comparing theory with empirical work from the company's annual reports, it appears that the company adopts and adjusts elements and principles that best suit the operations of the company.

CHAPTER FIVE

5. ANALYSIS

The analysis and interpretation of the data collected for the research is presented in this chapter.

5.1 DATA COLLECTED

Respondents were chosen based on the fact that they were considered most knowledgeable on risk management and internal controls, in order to confirm opinion regarding the subject matter. There was a favourable response level (representing 95%) from the company.

5.2 THE RESULT

This is the actual analysis and discussion of the data collected. At the end of this study, the researcher is expected to confirm through the questionnaire that risk management and internal control systems do exist in the company and that they are being complied with to a greater degree or otherwise.

5.3 POPULATION AND RESPONDENTS

The entire organization was too large for a research of this nature and in order to avoid complications, two key informants were chosen from the accounts/finance, internal control, administration, human resource and the insurance departments as the sample. These departments were chosen purposely because they are thought to be more knowledgeable on the subject of discussion. The respondents are however chosen by purposive sampling. The questionnaire was sent through an e-mail to my contact person, who then forwarded them to the respondents.

5.3.1 SECTION ONE - EDUCATIONAL BACKGROUND OF RESPONDENTS

The educational backgrounds of the respondents were assessed. This is important because earlier research work showed that there is a relationship between educational background and the degree of effectiveness of internal control systems in an organization (Woolf, 1994). The higher the level of education of personnel, the higher the degree of awareness of internal controls and the lesser the risk associated with business activities (all things being equal). Data collected shows that respondents have high educational levels and that there is a positive relationship between the level of educational background of personnel and the level of awareness of risk management and internal controls. For example, the Head of Group Risk Analysis is a graduate from the Norwegian School of Economics and Business Administration and holds an MBA degree. The questionnaire clearly revealed that the more educated employees are, the more understanding they have for risk management and internal control systems.

5.3.2 SECTION TWO - RISK MANAGEMENT

Part 1 - Organizational Culture and Support

This part was intended to collect information about the importance of risk management to the organization. The questionnaire revealed that effective risk management is very important to its operation and activities and that the head of finance is responsible for risk management. The responsibility for risk management is well documented and communicated. However four out of five staff (representing 80%) understands the importance of risk management to the organization. Again, the organization's ability to encourage and provide resources to staff to undertake relevant training to improve their skills in risk management is not at its best but the company has put in place an audit committee that checks on the control weaknesses and balances for the company.

Part 2 - Risk Management Policy

The section seeks to gather information about the awareness of the organization's risk management policy and how the policy is made known throughout the organization. Responses show that DnB NOR ASA's risk management policy is approved by its Board of Directors, Executive Management Team and it is made known to staff at staff meetings and seminars.

Part 3 - Organizational Objectives

This part of the question is intended to gather information about the objectives of the company and how these objectives are communicated. Information gathered indicates that even though policies are documented and communicated, only three out of five staff members (representing 60%) understand how the aims and objectives of the organization are linked to the objectives of their individual units or areas of operation.

Part 4 - Risk Identification

Questions in this part were on how the company goes about the identification of risks it is exposed to. Responses show that DnB NOR ASA carries out a comprehensive and a systematic identification of its risks relating to each of its declared aims and objectives. The responsibility for identifying risks lies with Chief Executive Officer, Board of Directors, Executive, Management Team, Director of Finance, Internal Auditor, Risk Manager and Line Managers.

Part 5 - Risk Analysis, Evaluation and Treatment

This section contained questions mainly on the extent and responsibilities for risk analysis, evaluation and risk treatment in DnB NOR ASA. The completed questionnaire showed that the company uses qualitative analysis method in its risks analysis. It also assesses its risks in terms of occurrence likelihood. Respondents mentioned that the level of risks faced by the organization has increased in the last 5 years because of technological developments, customer demands and expectations and competition among companies in the same industry.

Part 6 - Risk Monitoring

Here, the section tries to find out how the company monitors, reviews and reports on risks. Two out of three responses (representing 67%) showed that monitoring the effectiveness of risk management is an integral part of routine management reporting and that Senior Management is receptive to all communications about risks, including bad news.

Part 7 - Effective Risk Management

This part seeks information on the effectiveness of the risk management components within the organization. 97% of the answered questionnaire shows that there is best practice within the organization. One of the respondents wrote “best-practice institutions know they need to measure and manage risk across the entire enterprise.”

5.3.3 SECTION THREE - INTERNAL CONTROL SYSTEMS

The system, structure and complexity of an organization's systems of control will vary from one company to another. The system will depend on the nature, size and how complex the activities of the concerned institution are. The basic element of an effective internal control systems include:

Part 1 - Control Environment

An environment in which it is easy to identify, recognize and stress control. All respondents indicated that policies and procedures are periodically reviewed by its Boards of Directors, systems are put in place to monitor compliances on internal controls, the board does take actions for non-compliances reported to it, the board gets access to all records, accounting and current information is communicated to the board on timely basis, the qualification and independence of both internal and external auditors are reviewed and the adequacy of internal control systems are assessed periodically.

Part 2 - Risk Assessment

This section looks at the establishment of policies and procedures for risk management. Information gathered revealed that even though the institution has sufficient and adequate personnel, competent and knowledgeable to manage its risk management activities, they have not been provided with adequate resources to effectively manage the risks of the company as well as current and proposed organizational activities in all areas.

Part 3 - Control Activities

It has to be recognized that all forms of activities need some measure of control and this section seeks information about these control measures. Answers provided show that procedures and policies exist in the company to provide appropriate approvals, independent verification, ongoing and independent reconciliation of all balances, assets, liabilities and off balance sheet items.

Part 4 - Accounting, Information and Communication Systems

DnB NOR ASA's accounting systems properly manage and report company transactions in accordance with proper accounting standards. However, the institution's accounting, information and communication systems are not able to identify all risk taking activities within the company's policy guidelines. It has also been revealed that not all personnel in the area of control understand how their activities relate to others.

Part 5 - Monitoring or Self Assessment

This part seeks information about the establishment of policies and procedures for self-assessment and monitoring. Information gathered revealed that the Boards of Directors do review management's actions in dealing with control weaknesses and verify that the actions taken by management are appropriate and adequate, audit reports or other control assessment reports are provided on time to allow for appropriate action by both the board and management.

5.3.4 SECTION FOUR - OPEN ENDED QUESTIONS

The open-ended questions gave respondents the chance to provide additional and helpful information. The questions were kept to a minimum in order to encourage respondents to complete them and enable the researcher to group the responses for analysis.

On the issue of compliance with company and statutory laws, the institution has company policy and procedure manuals. These manuals are made available to all employees at all times but employees do not comply with these policies and procedures at all times. In this case, appropriate actions are meted out to defaulting personnel depending on the breach. Statutory laws such as Lov om finansieringsvirksomhet, Verdipapirhandelloven and Finansavtaleloven do however conflict with the objectives of risk management and internal control systems of the company. If the company fails to comply with the above mentioned rules and regulations, sanctions such as fines and withdrawal of concessions are imposed on the company as penalty.

5.3.5 NON-RESPONSE REPLIES

Non-response is an important potential source of bias in a research work. If the rate is high, it could cause a problem since it may create bias in data analysis (Bryman and Bell, 2007). Even though there was a favourable response level, a few of the questions were left unanswered. It is not indicated why replies were not given for those questions. Some of the reasons may be that they were oversight, misunderstood or difficult to answer.

5.4 RESEARCH PROBLEMS AND LIMITATIONS

The topic of risk management and internal control systems is very broad and to be able to meet the deadline set for the thesis, the research was not conducted to cover all the areas of the topic. With regards to the questionnaire, though comprehensive, it may not cover all the areas of risk management and internal control weaknesses. It would also have been good to capture the attitudes and behaviours of respondents in the course of answering the questions but this was not possible. Due to time constraints, it was not possible to administer interviews and observations as earlier planned. The researcher anticipated that, in administering the questionnaire, some problems would be encountered. For example, for ethical reasons, some respondents did not provide certain information needed.

CHAPTER SIX

6. SUMMARY

This chapter contains key findings, recommendations, suggestions for further research and conclusion.

6.1 KEY FINDINGS

Some of the risks that threaten the operations of DnB NOR ASA are credit risk, market risk, liquidity risk, market and insurance risk in life insurance, non-life insurance risk, operational risk and business risk. The company distinguishes between these risks in order to facilitate dealing with them.

Monitoring and managing risks is an integral part of its financial operations in DnB NOR ASA. Sound risk management is therefore a strategic tool used to enhance its value generation. The structure of the organization also ensures independent risk reporting. In short, the group's risk management has the overall responsibility for risk management and internal control and for assessing and reporting the company's overall risk situation.

Internal control is considered to be an instrument in handling risks that could prevent the group from attaining its targets. The group has developed internal models that analyse and calculate the risk of operations, including credit, market and liquidity risks, as indicated in the bank's Directors' Report. It is also acknowledged in the organization that internal control ensures effective operations, high quality internal and external reporting, together with group compliance with related laws, regulations and internal guidelines, including the company's value and codes of ethics. The company believes that independent and effective audit ensures satisfactory internal control as well as reliable financial reporting. The group audit carries out independent assessment of risks and checks on group activities. The result is then presented to the Board of Directors of the relevant companies in the DnB NOR ASA group, the holding company's Board of Directors, the Audit committee and the group management.

Due to the strong risk management, internal control systems and credit strategies put in place by DnB NOR ASA, the company performed fairly well despite the down turn on the economy, such that the bank experienced less negative effect both on performance and profitability as shown in table 3.

Table 3: Performance of DnB NOR ASA in terms of profitability

INCOME STATEMENT

Amounts in NOK million	2009	2008	2007	2006	2005
Net interest income	22 633	21 910	17 866	15 289	13 610
Net other operating income	14 994	12 438	13 732	13 204	11 725
Ordinary operating expenses	18 911	18 721	15 974	14 263	12 711
Other expenses	0	0	476	164	153
Pre-tax operating profit before write-downs	18 717	15 627	15 148	14 066	12 471
Net gains on fixed and intangible assets	26	52	2 481	365	775
Write-downs on loans and guarantees	7 710	3 509	220	(258)	137
Pre-tax operating profit	11 032	12 170	17 409	14 689	13 109
Taxes	4 086	3 252	2 387	2 881	2 965
Profit from operations and non-current assets held for sale, after taxes	80	0	0	0	0
Profit for the year	**7 026**	**8 918**	**15 022**	**11 808**	**10 144**
Profit attributable to shareholders	8 585	9 211	14 780	11 665	10 131
Profit attributable to minority interests	(1 559)	(293)	242	143	13
Earnings per share (NOK)	6.43	6.91	11.08	8.74	7.59

Source: DnB NOR ASA Annual Report, 2009

Table 4: Comparism of DnB NOR ASA's financial performance from 2005 to 2009

Year	2005	2006	**2007**	2008	2009
Profit (in million)	10144	11808	**15022**	8918	7026
% Change	-	16 %	27.2%	40.7 %	21.3 %
Effect	-	Increase	Increase	Decrease	Decrease

Source: Compiled by author, 2010

Table 4 gives a historical insight into DnB NOR ASA's performance in terms of profitability. The company shows increases in profit from 2005 to 2007 and decreases in profit from 2008 to 2009. Despite the financial crisis in 2007, the bank rather did well with 27.2% increase in profit from 2006. However, the impact of the crisis had a negative effect on profit in 2008 and 2009. Profit decreased by 40.7% between 2007 and 2008 and 21.3% between 2008 and 2009. From this data, the researcher expected that profit would have continued to decrease significantly from 2008 to 2009 due to the current financial situation. But as a result of the strong credit strategy, risk management and internal controls put in place by the bank, the percentage drop in profit decrease, which in a way shows improvement in the performance of the bank.

6.2 RECOMMENDATIONS

The following recommendations are made based on findings from the results of the questionnaires:

- Enough resources should be provided for personnel to carry out effective risk management and internal controls. These personnel should also be well equipped to enable them carry current and proposed activities of the institution.

- It has also been revealed that some personnel in the area of control do not fully understand how their activities relate to other units of the company. Therefore, meetings, programmes or seminars should be organized often, where information would be given, showing how each area of work relates to each other and to the over all success of the organization.

- Manuals on policies and procedures are made available to all employees at all time but employees do not comply with these policies and procedures at all times. In this case, management must take strong and appropriate actions against defaulting personnel depending on the breach, such as will prevent them from repeating such offences as well as serve as example to others.

6.3 SUGGESTIONS FOR FURTHER RESEARCH

The initial topic for this thesis was risk management and internal control systems in listed Norwegian companies; a comparative study of DnB NOR ASA in the financial sector and StatoilHydro ASA in the energy sector. The intention of the researcher was to compare and contrast similarities and differences in risk management and their control systems. However, due to the unwillingness on the part of personnel in StatoilHydro ASA to participate in the research, the study was limited to DnB NOR ASA. It would therefore be an absolute delight to see a research done in this direction. That is a comparative analysis research between or among different sectors of the Norwegian economy.

6.4 CONCLUSION

The study revealed that risk management and internal control systems exist in the company and that they are being complied with. Therefore the main hypothesis for this research is accepted. As a result of the good risk management and internal control systems put in place by the company, the company was able to do fairly well (compared to the previous years) despite the financial scandals and crisis of recent years.

It is also important to note that even though it is stated that DnB NOR ASA's work within risk management and internal control is based on the principles in the framework of COSO, all the elements are not implemented. By comparing theory with empirical work from the company's annual reports, it appears that the company adopts and adjusts elements and principles that best suit the operations of the company.

LIST OF REFERENCES

Andersen, I. (1998), *Den åpenbare realitet: valg av samfunnsvitenskapelig metode,* Student litteratur, Lund, Sverige.

Bryman, A. and Bell, E. (2007), Business Research Methods, 2nd edition, Oxford University Press.

Chapman, C. and Ward, S. (2002), Managing project risk and uncertainty, John Wiley & Sons, Chichester, United Kingdom.

Chorafas, D. N. (2008), Risk Accounting and Risk Management for Accountants, CIMA Publication, Elsevier, United Kingdom.

CIMA Official Terminology (2005), Chartered Institute of Management Accountants, CIMA Publication.

Coates, B. E. (2003), Rogue corporations, corporate rogues & ethics compliance: The Sarbanes-Oxley Act, 2002. Public Administration and Management, 8(3), 164-185.

Collier, P. M., Berry, A. J. and Burkey, G. T. (2007), Risk and Management Accounting: Best Practice Guidelines for Enterprise-wide Internal Control Procedures, CIMA Publishing, London.

Committee of Sponsoring Organization of the Treadeway Commission [COSO] (1992), Internal Control Integrated Framework, Committee of Sponsoring Organization of the Treadeway Commission, New York.

Committee of Sponsoring Organizations of the Treadway Commission [COSO] (2004), Enterprise Risk Management-Integrated Framework, AICPA, New York.

Cook, T. D. and Campbell, D. T. (1979), Quasi-Experimentation: Design and Analysis for Field Settings, Rand McNally, Chicago, Illinois.

Dorfman, M. S. (2007), Introduction to Risk Management and Insurance, 9th Edition, Englewood Cliffs.

Eisner, E. W. (2001), Concerns and aspirations for qualitative research in the new millennium, Qualitative Research, SAGE publications, London.

Holt, M. F. (2006), The Sarbanes-Oxley act: overview and implementation procedures, Elsevier CIMA Publication, Oxford.

IRM, et al., (2002), A Risk Management Standard, AIRMIC, ALARM, IRM, United Kingdom, London.

International Federation of Accountants (1999), Enhancing shareholder wealth by better managing business risk, New York.

Kaplan, R. S. (1985), The Role of Empirical Research in Management Accounting, Working Paper 9-785-001, Division of Research, Harvard Business School, Boston, Massachusetts.

Mautz, R. K. and Winjum, J. (1981), Criteria for Management Control Systems, Financial Executives Research Foundation, New York.

Mun, J. (2004), Applied Risk Analysis. Hoboken, Wiley & Sons Inc, New Jersey.

Patric, H. T. (1966), Economic Development and Cultural Change, Vol. 14, No. 2. pp. 174-189, The University of Chicago Press, USA.

Scapens, R. W. (1990), Researching Management Accounting Practice: The role of Case Study Methods, The British Accounting Review, Vol. 22, pp. 259-281, United Kingdom.

Smith, A. (1776), The Wealth of Nations, Modern Library, New York.

Stake, R. (1978), The Case Study Method in Social Enquiry, Educational Researcher 7(2).

Woolf, E. (1994), Auditing Today, 6 sub division, Prentice edition, New York.

INTERNET SOURCES

BBC News (2010), Icelandic volcanic ash alert grounds UK flights, One-Minute World News, 15 April 2010, available on http://news.bbc.co.uk/2/hi/8621407.stm

Berglund, N. (2002), "Fraud fears mount in Finance Credit scandal", published 19 November 2002, available on http://www.aftenposten.no/english/business/article439239.ece

Bjørndal, B. (2007), Terra-rådgiverne tjente grovt, published 27 November 2007, available on http://www.dn.no/forsiden/naringsliv/article1248366.ece

CIMA Official Terminology (2006), available on http://www.download-it.org/free_files/filePages%20from%206%20Internal%20Control.pdf

DnB NOR ASA annual report 2007, available on http://tools.euroland.com/arinhtml/n-dnb/2007/ar_eng_2007/

DnB NOR ASA Annual Report 2008, available on http://tools.euroland.com/arinhtml/n-dnb/2008/ar_eng_2008/

DnB NOR ASA Annual Report, 2009 available on https://www.dnbnor.com/portalfront/nor_com/nedlast/no/2010/4/annual_report_2009_dnb_nor_2.pdf

Leitch, M. (2004), Risk Management versus Internal Control, available on http://www.irmi.com/expert/articles/2004/leitch06.aspx, last viewed in June 2004

NOU 2008: Om foretaksstyring og tiltak mot manipulering av finansiell informasjon Submitted to the Ministry of Finance 19 September 2008, available on http://www.regjeringen.no/nb/dep/fin/dok/nouer/2008/nou-2008-16.html?id=526814

Oslo Børs Report, Statistics, (2009), available on http://www.oslobors.no/Oslo-Boers/Statistikk/AArsstatistikk

Regulations on Banks' Internal Control and Risk Management Systems Issued by the Banking Regulation and Supervision Board (2001), published in the Office Gazette, issued no. 24312, on 8 February, available on http://www.ie.boun.edu.tr/fe/internalcontrol_and_riskmanagement.doc

Skogstad Aamo, B. (2004), The Regulator's Role in the governance of Norwegian banks, available on http://www.finanstilsynet.no/archive/stab_word/01/04/11052017.doc

The Institute of Chartered Accountants in England &Wales (1999), Internal control: Guidance for Directors on the Combined Code, available on http://www.ecgi.org/codes/documents/turnbul.pdf

The Norwegian Code of Practice for Corporate Governance (2009), available on http://www.nues.no/filestore/TheNorwegianCodeofPraciceforCorporateGovernance21October2009.pdf

Tisdall, J. (2003), Statoil's international director resigns, published 12 September 2003, available on http://www.aftenposten.no/english/business/article624131.ece

PERSONAL CONTACTS

Leitch Mathew, author of Risk Management and Internal Control, United Kingdom

Hoff Roar , Head of Corporate Risk Management, DnB NOR ASA, Oslo Norway

Sollund Sollund, Secretary, Ministry of Finance, Norway

APPENDIX 1 - COVER LETTER

Dear Sir/Madam,

<u>TO WHOM IT MAY CONCERN</u>

I am a student at the Tromsø University Business School (Handelshøgskolen i Tromsø) and I am writing my Master's Degree Thesis on Risk Management and Internal Control Systems. I am therefore carrying out a research on listed companies on Oslo Børs. In this research I wish to gain a deeper understanding of risk management and internal control systems.

Your organization DnB NOR ASA is one of the leading financial institutions listed on the Oslo Børs and I have therefore selected it for this study. I would like to send questionnaires through e-mail to be completed by up to 10 people, in the fields of Accounting/Finance, Administration, Human Resource, Internal Audit and Insurance.

I would be grateful if the completed questionnaire could be scanned back to me through the mail by 30th June, 2010.

The outcome of this research would be sent to your company.

Thank you in advance for the time spent to complete this questionnaire.

Yours sincerely,
(Signed)
Anne Deladem Siayor

APPENDIX 2 - QUESTIONNAIRE

QUESTIONNAIRE

This is a master's research work being undertaken for the Tromsø University Business School (Handelskolen i Tromsø) with the aim of deepening my understanding of risk management and internal control systems that exist in companies listed on Oslo Børs. Any information given will be kept confidential. Thank you for your co-operation.

SECTION ONE

(**Background Information**)

1. Educational background……………………………………………………………
2. Industry sector (Company name)…………………………………………………..
3. Branch………………………………………………………………………………..
4. Position held………………………………………………………………………...

SECTION TWO

RISK MANAGEMENT

Part 1

(Organisational Culture and Support)

1.1 Effective risk management is important to the achievement of your organisation's objectives.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.2 Your organisation's performance can be improved by effective risk management.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.3 The responsibility for risk management within your organization is well

a) documented and communicated	1	2	3	4	5
b) understod.	1	2	3	4	5

1.4 Who is responsible for risk management within your organization: **Circle all that Apply**

• the Chief Executive Officer?	1
• another senior executive?	2
• Head of Finance?	3
• a committee?	4
• the Risk Manager?	5
• the Internal Auditor?	6
• other? (Please specify below)	7

....

....

1.5 Your organization is able to allocate appropriate resources in support of risk management policy and practice.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.6 Your organization encourages and provides resources to staff to undertake relevant training to improve their skills in risk management.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.7 Does your organization have an Audit Committee? **Yes** **No**

1 2

Part 2
(Risk Management Policy)

2.1 Does your organization have a documented risk management policy? **Yes** **No**

2.1 Does your organization have a documented risk management policy?	**Yes**	**No**
	1	2

2.2 Who approved the policy:

	Circle all that Apply
• Minister?	1
• Chief Executive Officer?	2
• Board/Executive Management Team?	3
• Director of Finance?	4
• Audit Committee?	5
• Risk Manager?	6
• other? (please specify below)	7

2.3 Your organization's risk management policy is made known to all staff

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Part 3
(Organizational Objectives)

3.1 The aims and objectives of your organization are contained in a documented statement and communicated to management and staff.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3.2 The priorities of your organization's business objectives are documented, communicated and understood by management and staff

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3.3 The organization's staff understands how the aims and objectives of the organization are link to the objectives in their individual unit/area.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Part 4
(Risk Identification)

4.1 Your organization carries out a comprehensive and systematic identification of its risks relating to each of its declared aims and objectives.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4.2 Who is responsible for identifying the risks facing your organization: **Circle all that apply**

• Chief Executive Officer?	1
• Board/Executive Management Team?	2
• Director of Finance?	3
• Internal Auditor?	4
• Risk Manager?	5
• Line Managers?	6
• all Staff?	7
• other? (please specify below)	8

....

....

4.3 What tools and techniques are used by your organization for identifying risks: **Circle all that Apply**

- audits or physical inspection? 1
- brainstorming? 2
- examination of local/overseas experience? 3
- others (specify below) 4

....

....

Part 5
(Risk Analysis, Evaluation and Treatment)

5.1 Your organization uses qualitative analysis methods (eg high, moderate, low) in its risks analysis

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5.2 The risks your organization faces are assessed in terms of occurrence likelihood.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5.3 In the last 5 years the level of risk faced by your organization has:

Increased	Decreased	Not Changed	Not Sure
1	2	3	4

5.4 Your organization understands the limits to risk it may take in the achievement of its objectives

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Part 6

(Risk Monitoring and Review)

6.1 Monitoring the effectiveness of risk management is an integral part of routine management reporting.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6.2 The organization's senior management is receptive to all communications about risks, including bad news.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Part 7

(Effective Risk Management)

7.1 Overall, at what stage of risk management practice development does your organization consider itself to be at (1 is in line with best practice, 5 is non Existent)?

1	2	3	4	5
Best Practice	Well Developed	Reasonably Well Developed	Basic	Non Existent

SECTION THREE
INTERNAL CONTROL SYSTEMS
Part 1
(Control Environment)

1. 1 Are policies and procedures periodically reviewed by the board to ensure that appropriate internal controls have been established? Yes ( ) No ( )

1.2 Is there a monitoring system in the organization to determine compliance with internal controls and are instances of noncompliance reported to the board? Yes ( ) No ( )

1.3 Does the board take appropriate follow-up action in instances of noncompliance that are reported to it? Yes ( ) No ( )

1.4 Does organizational management allow access to all records by the board or board representatives? Yes ( ) No ( )

1.5 Are board decisions made collectively and not controlled by a dominant individual or group? Yes ( ) No ( )

1 6 Does the board receive appropriate and current information from the organization's accounting, information and communication systems to make informed and timely decisions? Yes ( ) No ( )

1.7 Does the board receive sufficient information about the organization's internal risk assessment process? Yes ( ) No ( )

1.8 Does the board review the qualifications and the independence of the organization's internal auditors? Yes ( ) No ( )

1.9 Does the board review the qualifications and the independence of the organization's external auditors? Yes ( ) No ( )

1.10 Do the organization's internal auditors report their findings directly to the board or to a board committee? Yes ( ) No ( )

1.11Do the organization's external auditors report their findings directly to the board or to a board committee? Yes ( ) No ( )

1.12 Do the organization's internal auditors periodically assess the adequacy of the organization's internal control systems? Yes ( ) No ( )

1.13 Do the organization's external auditors periodically assess the adequacy of the organization's internal control systems? Yes ( ) No ( )

1.14 Are internal control policies communicated to all of the organization’s employees? Yes ( ) No ( )

1.15 Is staff conduct policies communicated to all of the organization's employees? Yes ( ) No ( )

1.16 Do policies on staff ethics or codes of conduct exist? Yes ( ) No ( )

1.17 Do audit procedures or other control systems exist to test on a periodic basis for staff compliance with ethics policies or codes of conduct? Yes ( ) No ( )

Part 2
(Risk Assessment)

2.1 Do the board and management appropriately evaluate risks when the organization is planning and approving new products or activities? Yes ( ) No ( )

2.2 Do the board and management appropriately discuss and plan for control systems when the organization is planning and approving new products or activities? Yes ( ) No ( )

2.3 Is internal audit staff, or other internal control staff, involved in discussions about appropriate controls when the organization is developing new products and activities? Yes ( ) No ( )

2.4 Do the organization's board and management involve internal audit staff, and other internal control staff, in the risk assessment process? Yes ( ) No ( )

2.5 Do the organization's board and management consider and appropriately address technology issues in the risk assessment process? Yes ( ) No ( )

2.6 Are there sufficient personnel who are competent and knowledgeable to manage current and proposed organizational activities in all areas? Yes ( ) No ( )

2.7 Have these staff members been provided with adequate resources to manage the organizational activities? Yes ( ) No ( )

2.8 Are there sufficient personnel who are competent and knowledgeable to manage the organization's risk management activities? Yes ( ) No ( )

2.9 Have these staff members been provided with adequate resources to manage the organization’s risk management activities? Yes ( ) No ( )

Part 3
(Control Activities)

3.1 Do policies and procedures exist in the organization to provide that decisions are made with appropriate approvals? Yes ( ) No ( )

3.2 Do processes exist to provide independent verification of a sufficient sample of transactions to ensure integrity of the decision making process? Yes ( ) No ( )

3.3 Do processes exist in the company to prove that there is ongoing and independent reconciliation of all balances, both asset and liability and on- and off balance sheet items? Yes ( ) No ( )

3.4 Are the decision-making authorities for all risk taking areas separate from the reconciliation activities for those areas? Yes ( ) No ( )

3.5 Are there provisions in the personnel policies of the organization to provide for periodic rotation of staff duties? Yes ( ) No ( )

3.6 Are dual controls over organization assets and separation of duties provided for in he company's organizational structure? Yes ( ) No ( )

Part 4
(Accounting, Information and Communication Systems)

4.1 Do the organization's accounting systems properly manage and report company transactions in accordance with the proper accounting standards? Yes ( ) No ( )

4.2 Are appropriate and sufficient reports produced by the company for the proper management and control of the company? Yes ( ) No ( )

4.3 Are the organization's accounting, information and communication systems able to identify whether all risk taking activities within the company are within the company's policy guidelines? Yes ( ) No ( )

4.4 Do all company personnel in the areas of control understand their roles?
Yes ( ) No ( )

4.5 Do all company personnel in the areas of control understand how their activities relate to others? Yes ( ) No ( )

4.6 Do all company personnel in the areas of control understand their accountability for their activities? Yes ( ) No ( )

Part 5

(Monitoring or Self-Assessment)

5.1 Does the board approve the company's systems of internal controls? Yes ( ) No ( )

5.2 Does the board review management's actions in dealing with control weaknesses and verify that the actions taken by company's management are appropriate and adequate? Yes ( ) No ( )

5.3 Is there sufficient detail in audit reports, or other control assessment reports, for the company's board and management to understand the situation as regards internal controls? Yes ( ) No ( )

5.4 Are audit reports, or other control assessment reports, timely enough so that the company's board and management are able to take appropriate action? Yes ( ) No ( )

5.5 Does the board, or a board committee, approve the appointment of the company's internal audit personnel? Yes ( ) No ( )

5.6 Does the board, or a board committee, approve the scope of all internal activities that review internal controls? Yes ( ) No ( )

5.7 Does the board, or a board committee, review the results of all internal and external audits? Yes ( ) No ( )

SECTION FOUR

PART 1

(Compliance with company policy and statutory laws)

1. Does the company have a Company Policy and Procedures manual? Yes ( ) No ( )

2. Are these manuals available to the employees? Yes ( ) No ( )

3. Do employees comply with these policies and procedures all the time? Yes ( ) No ( )

4. If your answer to question (3) is no, what sanctions are meted out to defaulting employees? …………………………………………………………………………
   ……………………………………………………………………………………….
   ……………………………………………………………………………………….

5. Are there statutory laws governing the activities of the company? Yes ( ) No ( )

6. If your answer to the above question is yes, could you list some of them?
   ……………………………………………………………………………………..
   ……………………………………………………………………………………...
   ………………………………………………………………………………………

7. Does the company comply with these statutory laws and regulations? Yes ( ) No ( )

8. Do these statutory laws conflict with the objectives of the risk management and internal control systems of the company? Yes ( ) No ( )

9. Is there any penalty if the company fails to comply with the above mentioned statutory rules and regulations? Yes ( ) No ( )

10. If your answer to the above is yes, could you mention some?......................................
    ……………………………………………………………………………………………..
    ……………………………………………………………………………………………..

11. Is there any "after listing rules and regulations" by Oslo Børs on the company? Yes ( ) No ( )

12. If your answer to question (11) is yes, do they conflict with the rules and regulations of the company? Yes ( ) No ( )

13. If your answer to question (12). is yes, how are these differences reconciled?

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

14. In your opinion, do you think the company is meeting its responsibilities to the shareholders and other stakeholders?

Yes ( ) No ( ) Always ( ) Sometimes ( )

PART 2

(Overall governance)

1. Is the board of directors' membership and practices compliant with the Norwegian Corporate Governance rules and principles? Yes ( ) No ( )

2. What provisions have not been implemented?..

....

....

....

3. What is the company's action plan to implement these provisions mentiontioned in Question (2)?

....

....

....

4. Does the board have a written statement of its own governance principles that it re-evaluates on a regular basis? Yes ( ) No ( )

5. What steps have the board of directors taken to monitor management's actions and to ensure that shareholder's interests are protected?..

....

....

....

6. With the increased focus on boards of directors, has the board undertaken a review of its effectiveness? Yes ( ) No ( )

7. If your answer to question (6) is yes, what are the outcomes and recommendations?

………………………………………………………………………………………………

……………………………………………………………………………………………….