Auditing Fair Value measurements and Disclosures: A case of the Big 4 Audit Firms

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Acknowledgements

The study of “auditing fair value measurements and disclosures” could not have been completed without the guidance of many people who have contributed to this research.

To begin with, I would like to express my gratitude to my supervisor, Kim Ittonen, for all the encouragement, support, leadership, time and patience. As a supervisor, he provided a platform of learning and conducting an accounting research and he literally made the impossible possible, providing the required elements of this thesis.

Moreover, I would like to express my immense gratitude to Joakim Åström, Andreas Rinzen, Johan Petersson, Angar Torscha, Auditors X, and Auditor- Z for their time, guidance and devotion for replying to the questionnaires.

I finally forward my acknowledgement to prof. Stefan Sundgrun and all those who contributed to making this paper a success.

I hope all readers enjoy reading the study.

Kemal A. Endeshaw
Abstract

Problem: In today’s business environment, rising demand in financial reporting and frequent changes in accounting frameworks lead to an increased focus on reliability in Fair Value Measurement (FVM) and disclosures. The frequent changes in accounting frameworks create a challenge for managers in measuring accounting estimates accurately and have been an exceedingly difficult task. The difficult task is that of the auditors. How would auditors endorse and ensure the reliability and relevance of financial statements? Also how could they evaluate the accuracy of the measurement of fair values as presented in the financial statements? (IFAC, 2011, ISA 540).

Purpose: The purpose of this thesis is to explore the methods and approaches used by auditors while auditing fair values from practical perspectives.

Method: A multiple case study with pure qualitative methods and an inductive approach has been adopted. The qualitative method used a semi-structured interview to collect data. The study entails a multiple case study approach with pure qualitative study.

Result: The result shows that by understanding the challenges and following the phases of auditing, auditors can maintain the quality of financial reporting. Four key audit phases are relevant to audit FVM. These are: understanding the Client-Business environment, Engagement, Internal Control, and Planning phases of auditing. Furthermore, the results revealed key challenges of auditing FVM and disclosures. These challenges are information insufficiency in the market (reliability), competence, auditors’ lack of fair value audit exposure, and the manager’s leadership role and style. Moreover, as previous studies on FV have primarily relied on synthesis of academic literature, the thesis contributes knowledge to academia by using an empirical approach.

Keywords: Fair Value Measurement and Disclosures, Management Bias, Verification, Reliability, and Phases of Auditing.
### List of Abbreviations

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<tr>
<td>IAASB</td>
<td>International auditing and Assurance Standards Board</td>
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<td>IAS</td>
<td>International Accounting Standard</td>
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<td>IASB</td>
<td>International Accounting Standard Board</td>
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<tr>
<td>IFAC</td>
<td>International Federation of Accountants</td>
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<tr>
<td>IFRS</td>
<td>International Financial Reporting standard</td>
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<td>ISA</td>
<td>International Standards on Auditing</td>
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<td>FV</td>
<td>Fair Value</td>
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<td>AFV</td>
<td>Auditing Fair Value</td>
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<td>FVA</td>
<td>Fair Value Audit</td>
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<td>FVM(s)</td>
<td>Fair Value Measurement(s)</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>AICPA</td>
<td>Association of International Certified Public Accountants</td>
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<td>CFA</td>
<td>Certified Financial Accountants</td>
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<tr>
<td>ERM</td>
<td>Enterprise Risk Management</td>
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<tr>
<td>GAAP</td>
<td>Generally Accepted Accounting Principles</td>
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<td>PCAOB</td>
<td>Public Company Accounting Oversight Board</td>
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<tr>
<td>SME</td>
<td>Small and Medium Size Enterprises</td>
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<td>USBE</td>
<td>Umeå University School of Business and Economics</td>
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1 Introduction

This chapter gives an overview of the thesis by presenting concise information relevant for the general outline of the study. A statement of the problem along with the purpose and demarcations of the study is provided.

1.1 Introduction

Recent developments in the auditing profession heightened the need for harmonization of accounting standards. The developments were in auditors’ choice, audit guides and audit quality. These developments create complexities of which “rules, guidelines, and regulations” to follow. The complexities further created a problem of harmonizing financial information across countries (Michas, 2011, p. 1758). Furthermore, companies have been looking for reliable and relevant information for ages to increase the transparency and disclosure of audit reports. The information searching process gets considerable attention after dramatic accounting scandals happened over the last few decades (Humphrey et al., 2009, p. 2). Among the scandals are the 1980's takeover wave; the East Asian market crisis that happened in late 1998; the 21st corporate scandal of Enron and World Com in USA; Parmalat in Italy and the global economic crisis happened in 2008 were most difficult to forget.

According to IFRS 13, fair value is the price paid or the liability transferred between the willing parties at a specific date (IFRS 13, 2011, p. 9). Moreover, the IFRS13 also explains that the price paid or the liability transferred should be measurable. However, it is arguable that the measurement, disclosures and auditing of fair values present challenges. Recent research trends have shown the presence of a substantial problem towards fair value measurements and disclosures. When the market is not even, information is difficult to obtain, and prices are not readily available (Pannese & DelFavero, 2010, p. 44).

Researchers have proposed different solutions to overcome the challenges and complexities of fair values and its audit. Numerous studies have proposed a client understanding model as a remedy to the problem (Johnstone & Bedard, 2003, p. 1004 and Johnstone, 2000, p. 1). Other studies such as Hoffman & Zimbelman (2009, p. 75) have contemplated on the risk assessment and internal control considerations. Whilst recent researchers have suggested focusing on management estimates (Pannese & DelFavero, 2010, p. 45). Although several studies have proposed solutions to overcome the difficulties of auditing fair values, it is still a challenge for many companies. It is challenging because ascertaining the fair value of assets and liabilities is complex when the market is illiquid. Furthermore, the level of complexity increases as the market gets more competitors, and financial scandals happen. For instance, the economic crisis in late 2008 created a difficulty to measure the market values of assets and liabilities (Lax &Leuz, 2009, p. 45).

To overcome the challenges, auditors should understand the structure and procedures appropriate for the valuation of FV. Understanding the procedures enables auditors to overcome risk intertwined with audit engagements generally and specifically with
auditing fair values. Audits in FV involve challenges that auditors might not overcome. Challenges include lack of emphasis on internal control, lack of appropriate knowledge, management bias, and market uncertainties. Furthermore, to address challenges of AFV, auditors should be acquainted with the methods and procedures of auditing risks, and requirements of disclosure procedures. Auditors’ understanding should also be extended to management of uncertainties (Martin et al., 2006, p. 287; Song et al., 2010, p. 1382 and Ryan, 2008, p. 1613).

IFRS has provided auditors an approach on how to address uncertainties and ISA 540. However, an all-encompassing understanding of ISA 540 and related paragraphs alone does not mean that the auditor is competent to audit fair values. This is due to the complexities confined to auditing fair values. Difficulties in AFV are acknowledged by the IAASB. Complexities described by IAASB comprise of “measurement practice, information insufficiency in the market, the ability of management to execute decisions, the application of valuation methods and relevant models to evaluate the fair value of the assets and liabilities” (IAASB, 2008, p. 5).

To address the challenges and complexities of AFV, the IFAC has also prepared a guide to help professional accountants and auditors. The guide aims to improve the “rigor and skepticism” to be applied when auditing fair values. Moreover, the auditing guide helps to understand the future challenges with reliability and management bias (IFAC, 2010 p. 540). Nevertheless, such guidance is criticized for not taking practical issues into consideration. It has also been criticized for creating distortion in risk, and reducing the level of earnings in banks (Martin, et al., 2006, p. 286-287). Thus, in assessing risk of auditing fair value measurements and disclosures, the auditor should use risk assessment procedures. These procedures are not only limited to understanding the business and financial reporting process, but also help to comprehend how management estimates. Managers should use accounting estimates that are both realistic and comply with the requirements of the financial reporting framework. However, the difficult task is that of the auditors. How would the auditors endorse and ensure the reliability, relevance and how accurate is the measurement of fair values as presented in the financial statements? (Ryan, 2008, p. 1617 and Song et al., 2010, p. 1380). Overall, the research gap still exists because previous studies did not focus on empirical approach to understand the methods and approaches applied to audit fair values. Furthermore, previous studies did not cover topics from the practical perspective. Thus, the current study has taken an approach to cover this research gap.

The application of an audit guidance prepared by IFAC (2010) has some advantages. It helps auditors to increase clarity, minimize management biases, and to increase adequate disclosures. Thus, issues related to the evaluation of fair value measurements, and disclosure practice is a key to the main body of this thesis. Furthermore, this thesis investigates the internal audit procedures and financial statement disclosures from the perspective of the risk assessment.

1.2 Background

History has provided evidence that the German accounting tradition dominated the Swedish accounting system from 1900 to late 1950. The German accounting practice
has been seen from the creditor's perspective and still known as the European Banking model. Nevertheless, the traditional Anglo Saxon (US and UK) accounting tradition exerted its dominance over the continental accounting (European) system since the late 1960s. In Sweden, this accounting tradition has exerted its influence on companies listed in the stock exchange market (Artsberg, 2005). This tradition had ended since 2005 when Sweden adopted IFRS following the mandatory proclamation issued by EU for listed companies in the stock exchange market.

With the auditing practice gaining weight, the Swedish government and the Swedish auditing firms are addressing the public interest of stakeholders (EC, 2011, p. 11). The report also states that, the member countries, including Sweden are now committed to work in transparent, reliable, and related measurement and disclosure systems that comply with directives from the European Union. It is also argued that the adoption of IFRS in Sweden would maintain and uphold the stability of the financial sector. This could be accomplished by preventing frauds and management bias. Sweden's effort in taking effective measurement and accepting new directives from the European Union was evident with the applications and measurement practices of ISA 540.

The Big 4 Audit Firms; KPMG, PwC, Deloitte and Ernest & Young, are among the various international auditing and consulting firms that provide attestation for the genuine presentation of financial statements. Since 2005, the Swedish listed companies have used the fair value measurement and disclosure procedures. Companies in Sweden, however, are facing the same difficulties in auditing fair values as identified in the introduction of this paper.

1.3 Problem Statement

Auditing fair value has substantial ramifications on how companies survive and operate in a risk-free environment. To audit in a risk-free environment, auditors should consider several factors. These factors are forces pushing auditors for thorough analysis of financial information. For instance, judgments by managers, access to reliable and sufficient information are substantial factors challenging auditors. Moreover, problems with method of valuation, the need for adequate disclosure and selection of valuation techniques are also considerable forces that should be considered (Martin, et al., 2006, p. 287; Song et al., 2010, p. 1382; EC, 2011, p. 11 and Pannese & DelFavero, 2010, p. 161).

While companies do provide annual reports based on IFRS and IAS, external users still demand evidence to confirm the reliability of the data. However, getting a confirmation of the reliability of FV is complex. It is difficult because the reliability of data varies in terms of its nature, and its accessibility (Pannese & DelFavero, 2010, p. 163). This information-searching problem aggravates the degree of estimation uncertainty associated with fair value. Hence, Martin et al. (2006) gave an expanded view of the challenges of auditing fair value measurements and disclosures. Griffith et al. (2012, p. 1) further elaborated that an auditor can achieve a high degree of reliability and verification through managing risk and uncertainties. In other words, the degree of uncertainty and risk inherent in financial statement preparation is reduced by assessing management estimates. There are, however, differences in approaches and
methods synthesized by previous academic articles, and guidelines issued by IFAC to audit FV. The difference in the knowledge gap has existed since both prior studies and guidelines issued by IFAC did not consider methods and approaches from the practical perspective. Thus, the realistic application of AFV at the Big 4 Audit Firms is the research interest in this study.

To sum up, this paper addresses two main problems. The major problem is determining the reliability of market information. The issue of reliability has been controversial and much disputed in the field of auditing FVM. Thus, the methods and approaches used by auditors to address the issue of reliability of fair values is the first concern of this study. The problems inherent in the judgment of management, which encompasses bias and verification problems, can be seen as secondary in FVMs audit. This study addresses both challenges. Challenges related to information reliability and challenges related to management biases and verifications faced by auditors. These challenges encountered by auditors during auditing fair values are analyzed by investigating practical approaches from auditors of KPMG, PwC, Deloitte, and Ernst & Young in Sweden. Likewise, this thesis tries to fill the research gap that exists in academia by identifying challenges from applicable perspectives of auditing fair values.

1.4 Purpose of the Study

The purpose of this thesis is to look at methods and approaches used by auditors while auditing fair values from practical perspectives. To achieve this goal, different features of the ISA 540 are discussed and phases of the audit are analyzed. In analyzing the phases of auditing, emphasis is placed on auditing management estimates, fair value measurement and disclosures. Another benefit of focusing on the phases of auditing is that challenge of FVM is considered.

1.5 Contribution of the Study

The thesis contributes knowledge to the academia in several ways. First, it explores the approaches and methods, which affect the audit process in fair value measurements and disclosures. This can be achieved by identifying phases of the AFV. Most studies in auditing have only been directed to address the general phases of auditing. Only little attention has been paid to auditing FVM. Thus, the study complements the existing knowledge by analyzing the methods and approaches applied by auditors at different phases of auditing from the first phase of business analysis to the reporting phase (Eilifsen et al., 2010, p. 103). The phases of auditing are the step by step investigation where the auditor has taken all required measures to produce an auditor’s report. Investigating the phases of auditing provides an opportunity to understand the theory-practice relationship of the methods and procedures applied by auditors. The importance of studying the phases of auditing fair value is to increase the chances of identifying challenges in auditing fair values. There are no prior practical studies that formulate justifiable theories specific to AFV.

Second, this study contributes to the existing literature by investigating the challenges of auditing FV from a practical perspective. Previous studies identified the reliability of the market information and judgment of management as the two complex problems of
AFV (Martin, et al., 2006 p. 287; Song et al., 2010, p. 1382 and Pannese & DelFavero, 2010, p. 161). However, previous studies did not address practical issues by considering how auditors are approaching and providing an assurance for audits of fair values. In this regard, Christensen et al. (2012, p.142) recommends understanding the challenges by looking at the methods and presentation of financial information from practical perspectives. Bratten et a. (2012, p.38) also confirms the importance of studying the challenges from the application perspective to increase the chances of discovering issues related to FV estimates. They recommend that studying the AFV from practical perspectives narrows the knowledge gap related to the audit of FV. In doing so, this study is a practical application of ISA 540 that analyzes the methods and presentation of fair values as well as the realistic approach taken by auditors in auditing fair values. Moreover, This study opens a door for further studies to learn the practicability of ISA and auditor's reaction to uncertainties. Accordingly, it contributes knowledge to the academia.

1.6 Research Questions

To look at the main purpose of the study from different perspectives, three research questions are addressed. The questions are as follows:

1. What are the models the auditor used to come up with the fair value audits? Why is it relevant for the auditor to know how the management came up with the accounting estimates?
2. What are the challenges and complexities of the industry in the fair value audit?
3. What audit procedures should the auditor use to obtain evidence about fair value measurements and disclosures? How do auditors estimate uncertainties? And how could it affect what the auditor does during auditing fair value?

1.7 Research Limitations

There were three key limitations to this study. The main limitation of studying FVM is lack of adequate research papers in this field of study. This study encompassed few relevant academic articles because not many journal articles have been published. There are no prior master theses or doctoral dissertations related to this study. Even some of the academic articles were published after this study had finalized the discussion. In this case, the study encountered problems to structure the thesis. Nevertheless, the author himself came up with its current structure. The second limitation is related to auditors’ shortage of time and lack of willingness to disclose information related to the topic under investigation. Lastly, absence of respondents from evaluation experts and clients is considered as the last impediment to the study. If the opinions of valuation experts and a few other clients were present, the study might have been interpreted differently.

1.8 Outline of the Thesis
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<th>Outline</th>
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<td><strong>Chapter 1 “Introduction”</strong></td>
<td>This chapter begins by providing an overview of the subject under study. The research problem, purpose, research questions and definitions are clearly stated</td>
</tr>
<tr>
<td><strong>Chapter 2 “Frame of Reference”</strong></td>
<td>This chapter presents a literature review of auditing fair value. The chapter was used as a background for the analysis of the paper. Moreover, the section is used as a ground for the development of the empirical investigation chapter. Furthermore, it was also used as a baseline for the conclusion of the paper.</td>
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<tr>
<td><strong>Chapter 3 “Auditing Fair Value Estimates”</strong></td>
<td>This chapter is a supplement to the frame of reference and is used to highlight different features of ISA 540. ISA 540 paragraphs are covered in detail.</td>
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<tr>
<td><strong>Chapter 4 “Methodology”</strong></td>
<td>This chapter briefly describes the research methods that were used to obtain the data and compile the whole thesis. All approaches for empirical analysis and details of the research methods are covered under this chapter.</td>
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<td><strong>Chapter 5 “Empirical Investigations”</strong></td>
<td>This chapter fully describes the raw data collected from respondents</td>
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<tr>
<td><strong>Chapter 6, “Empirical Analysis”</strong></td>
<td>This chapter presents the results of the current study. The frame of reference chapter was used for analysis and comparison with previous studies.</td>
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<tr>
<td><strong>Chapter 7 “Conclusions”</strong></td>
<td>This chapter draws conclusions from the results of the findings in light of the research questions. All subsequent recommendations and future implications are covered in this chapter.</td>
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Figure 1-1: An Overview of Different Sections of the Study
2 Frame of Reference

This chapter intends to focus on related research that has been carried out in areas around the subject matter under investigation. The main substance of this chapter, as part of this thesis, is to present the understanding of the already well-exploited areas in FV. Literature review enables the current study to maintain the credibility the thesis work (Bryman & Bell, 2007, p. 95). This chapter has two main parts: FV-related facts and auditing practice.

2.1 Background

In recent years, attention has been provided for the auditing profession, including the audit of fair value of assets and liabilities. FV accounting and its investigation has become the most prominent subjects of accounting in private and public companies. The literature review is used as a background for the empirical discussion and analysis. Hence, two key discussions are maintained. The first section focuses on issues related to FV. The second section focuses on issues related to Auditing.

Measurement and Disclosure Practice of FV Accounting

2.2 Relevance Vs. Reliability

A considerable amount of literatures has been published to show the relevance of FVM. Mirza et al. (2008, p. 9-26) points out that FV accounting provides more relevant information for decision-making by reflecting realities of current market situations. In their argument, FV evaluates past actions while considering the relevance of existing conditions. Moreover, they mention that forecasting future market offers the model double credibility, which is relevant and reliable. Furthermore, the authors explain that forecasting prospective markets integrate predictability of market data.

Predictability is another key factor related to the relevance of information according to IFRS. The predictability of information presented in financial statements is regarded as a foundation for future predictions (Evans et al., 2010, p. 4). They also assert that the prediction should help users to respond to rapid changes. Their study points out that the predictability and relevance of information under FV method is more apparent. Hence, FV model is considered as a better method of predictability than the historical cost model. Furthermore, Evans et al. (2010, p. 4) argues that FV present's situations updated with ongoing market realities compared to the historical cost model. However, historical data have been identified as a major contributing factor in determining the current realities. Historical data rely on past events as its basis to execute a decision (Mark Olson, 2007 cited in Johnson, 2007, p. 1).

Caroll et al., (2003, p. 12-16) also examine the relevance of FV to cost accounting. While studying the relevance of FV to cost model. They argue that FV accounting reflects economic realities of current market information. They further point out the cost-based measurements show realities happened in the past. As a result, Caroll et al. (2003, p. 14) emphasize on the importance of FV method as a better method of predictability and its greater impact on a timely decision-making process.
Another point of discussion relates to the value relevance of the two methods. Advocates of historical cost argue that the historical method is more valuable than the FV method. For instance, Barth & Landsman (2010) describe a FV model as a complex and informative in its nature. Furthermore, they argue that an inherent risk attached to the audit of FV reduced the effectiveness of the FV method. The authors also argue that FV is an appropriate measurement tool used to measure financial instruments. However, IASB suggests that accountants should have the knowledge and understanding of FV accounting, including its audit.

Reliability according to Mirza et al. (2008, p. 12) is characterized by faithful report and free from material error. They point out that reliability has been regarded as most problematic because of uncertainties confined to the market. Information is assumed reliable if its sources are true and verifiable. Moreover, they stress on the importance of considering market realities and economic significances. This can be achieved by focusing on FVs not on the historical cost of the asset. In addition, they argue that reliable financial data is costly to get and complex due to risks. Risks could also be interpreted in terms of fraud inherent in finding a reliable data (Song, et al., 2010, p. 2-8). At any instance, IFRS demands that reliable information should be free from material bias and error. Nevertheless, the reliability of information is still the most problematic area in AFV (Song et al., 2010, p. 9 &12-14). Thus, presenting faithful financial information is still in question. According to Mirza et al. (2008, p. 9), faithful presentation is constructed based on reliable information. Faithful presentation also helps companies to build confidence among users. However, Mark Olson (2007, cited in Jonson, 2007, p. 1), criticized the usefulness FV model as a reliable approach since it does not guarantee material biases to be free.

2.3 Fair Value Vs. Historical Cost

In the previous section, we have seen the historical cost and fair value models in terms of the two factors: reliability and relevance. The following few paragraphs present the pros and cons of both methods. Firstly, a discussion related to FV is maintained. Secondly, the pros and cons of the historical cost are presented.

A considerable number of research literatures have been published on identifying the pros and cons of Fair Value and Historical cost approaches. According to IFRS13 (2011, p. 9), the FV of an asset is the “exchange price of the asset or the consideration paid to a liability”. However, the definition adheres to the arms-length transactions of the willing parties (the buyer and seller) to have equal information about the asset. Fair value accounting has been regarded as a good means of providing reliable market information. Hence, one way of measuring the FV of an asset is by comparing its price in an active market. Reliable information increases the quality of audit evidence. The argument described by Steve Fortin (2005) also attests that information reliability is worse during an unsound management’s estimate. Moreover, Fortin added that the reliability of information weighs fully towards the FV model. Nevertheless, Laux & Leuz (2009) do not entirely agree on the idea that historical cost information does not at all confer reliable information. In this regard, Laux & Leuz (2009, p. 6-9) raise their concern about how could historical cost data be irrelevant if the information is not updated. In addition, Laux & Leuz (2009, p. 14) have warned investors and accountants...
not to fully suspend cost method on the assumption that investors and CFA institutes should strongly request an accounting standard that can demonstrate financial statements more reliable and helpful in making decisions.

Landsman (2007, p. 22-24) in favor of historical cost accounting state that HC accounting is a method of an absolute certainty and convenient method of calculating cash flows. Moreover, they purported that recorded values by telling exactly what is paid for an asset or a liability could increase assurance, and deliver more value by increasing evidence. According to Truscott (2009, p. 45-46), a writer in Financial Week, FV accounting laid its foundation on historical costs. The bulletin states that few people argue that FV accounting could construct accurate future cash flow projections, and improve performance by providing reliable estimates. Furthermore, Landsman (2007, p. 27) argues that historical cost is a sound foundation for managers and investors in providing detailed projections of cash flows. However, more questions on the same issue have been addressed by Steve (2005) in weighing both methods equally in the context of relevance and reliability.

Auditing Issues

In the previous section, discussion was pertained to issues related to FV accounting. The definition, future impacts of fair values, advantages and disadvantages of FVA has been covered. The following few sections are related to the auditing practice. The measurement and disclosure issues related to FV have been a concern of many researchers. However, the audit of FV has not received a significant attention from researchers, and only few researches have been made to reduce complexities of FV (Martin, et al., 2006, p. 286-289). Hence; the discussion also incorporates previous research in the field of auditing.

2.4 Issues in Auditing FVM

The purpose of this topic is to provide readers a highlight about the challenges of auditing fair value. This section is essential to address the second and third research questions. Thus, challenges of auditing FV are confined to the second research questions, whereas the uncertainties section is related to the third research questions.

2.4.1 Challenges of Auditing FVM

In designing and analyzing the issue of FV evaluation, researchers have tried to identify challenges of FVM from different angles. Ryan (2008, p. 1610) identifies three challenges of auditing fair values. These challenges are “unrealized gain and loss reserves, market liquidity, and skewed distribution of cash flows.” Among these three challenges, the market liquidity is the strongest challenge for the auditors (IAASB 2008, p. 13).

After conducting an interview with 24 auditors, Griffith et al. (2012, p. 1) summarize the possible challenges of AFV and management estimates. In this regard, they come to the conclusion that most of the auditors lack the required competencies to audit fair values. Among the listed challenges, auditors’ lack of knowledge in understanding
management estimates, failure to understand major assumptions made by managers, and auditors' reliance on assumptions made by specialists are crucial ones. In this regard, Griffith et al. (2012, p. 35) explain that experienced auditors lack the skills to complete an AFV as the fresh auditors. Furthermore, they elaborate that auditors are “focused on verifying aspects of the management's model rather than critically evaluating the reasonableness of the estimate, and auditors tend to lack the knowledge they need to be effective at auditing estimates.”

The challenges of auditing FVs identified by IAASB (2008, p. 12) are indirectly similar to some of the challenges covered by Ryan (2008, p. 1610). The challenges explained in the IAASB report are “measurement practice, information abundance, and management's judgment.” Moreover, in relation to the IAASB pronouncements, the Chairman of PCOAB, Mark Olson asserts that auditors’ lack of knowledge is a challenge, and therefore, auditors should understand audit engagements (Olson, 2007, cited in Johnson, 2007, p. 1). Recent research study done by Griffith et al. (2012) confirmed that auditors lack the appropriate knowledge to complete a fair value audit. Humphrey, et al. (2009, p. 819-820) present the challenges of auditing fair value relative to "audit report and quality, value, and going concern." Their study also confirms the importance of professional judgment of auditors in determining the values of assets and liabilities when information is 'readily available' in the market.

Martin et al. (2006, p. 285) describe the problems of FV from three different perspectives. First, problems related to “lack of internal controls over FVMs”. Second, challenges in “identifying and evaluating FVMs that are likely to be higher risk.” Third,” potential auditor biases due to motivated reasoning and over confidence.” In addition, they synthesized in their research that auditors have difficulties to audit FVMs. The difficulty is higher because of overconfident valuation experts, and individual prepares. In this regard, Martin, et al. (2010) suggest that as the level of confidence rise, auditors should further investigate the estimates. Moreover, they adhered that auditors must be independent. That is auditors should disclose any failure of management bias or confirmation bias. Failing to disclose management bias or confirmation bias is an indication of the quality of an audit report. Martin, et al. (2006) pose a reminder that managers should not be overconfident during estimation. Failure to estimate correctly increases when the volume of data increases and reliability of data is in question.

Pannese & DelFavero (2010, p. 43-44) confirm that FV estimates made by managers do not exclusively reflect realities since estimates are not valid and results are based on limited and unreliable data sources. Some other researchers like Ramanna & Watts (2007) blame managers for intentional misstatement or systematic bias in FV estimates. Overall, empirical studies have conclusively shown that problems related to the reliability of fair value estimates, management biases and verifications decrease the quality of an audit report (, Martin et al., 2006, p. 290; Benston, 2008, p. 111 and Akgü et al., 2011). The quality of the audit report is measured in terms of the materiality documented by the audit firms (Christensen et al., 2012, p.138). It has also been demonstrated so far that an auditing of FVM is not only dealing with reliability, competence, management bias and verification, but also maintaining the quality of an audit report.
Pannese & DelFavero (2010, p.47) listed problems that auditors encounter while auditing FV. These points are summarized in the Table 2.1 presented below.

Table 2-1: Issues for auditors with expanded use of FV

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<th>Summary List of Issues for Auditors with the Expanded Use of FV Accounting</th>
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(Source: Pannese and DelFavero, 2010, p.47)

2.4.2 Uncertainties Confined to Auditing FV

Despite the requirements set by the IAASB, the auditor is expected to know which evaluation techniques to use. As an effort to understand the valuation techniques used to measure FV of assets and liabilities, FASB (2006, p.15) identifies three valuation approaches. These approaches are “the market approach, the income approach and the cost approach.” Under the market approach, the value of the assets or liabilities is estimated based on the market price of a similar asset or liability. However, the price includes “interest rates, house prices and other rates” (Humphrey, 2009, p. 818). The income approach uses the intrinsic values of assets. The cost approach applies a historical cost approach. Studies have revealed that determining the market values of assets and liabilities is confined to uncertainties.

Management estimates have been a controversial issue as a challenge to audit fair values. In this regard, Christensen et al. (2012 p. 128) explains the effect of management estimates in financial statement presentation. They explain that the measurement of management estimates is complex due to the multiple sources existing in measurement of uncertainties. Among the sources, the lacks of “model deficiencies, input volatility and economic trends” are notable ones. They further stress on the point that management estimates reported by US public companies are highly uncertain due to the subjective models and inputs used by managers. Moreover, they explain the effect of adjustment in management estimates and their impact on the income
statement. They explain that small changes or adjustments in uncertainties substantially affect the earning per share and income of the firm.

To audit uncertainties, prior research in accounting and auditing has also suggested different audit strategies. For instance, Zimbelman (1997) analyze the auditors' procedure for ambiguity resolution, and Heninger (2001) study the effects of the accruals and litigation costs on uncertainties. Similarly, the ISA 540 issued a number of audit guides. Audit guides are used nowadays by auditors to evaluate “point or range estimates” during an audit of uncertainties. A detail study has been conducted by Nelson et al. (2005, p.897). They analyze the impact of auditor's subjectivity (in terms of the probability of management estimates of future events), and auditor's relationship with materiality. Their study has investigated the relationship between point and range estimates. They found similar results of the two estimates (point and range) under domestic GAAP. Hence, the two estimates do not create a difference under national GAAP. However, their study emphasized on providing adjustments whenever the auditor uses a range estimate. Adjustments at this stage are necessary because of the materiality of misstatement losses and risks of subjectivity such as uncertainties of market information. In this regard, Bell and Griffin (2012, p.153) recommend auditors to report explicitly when the management estimates are different from their own point or range estimate.

According to Adrian et al., (2010, p. 43), auditors are required to use their own judgment, which articulates their preposition similar to Nelson et al. (2005, p. 897-910). Adrian et al. (2010, p. 44) also argues that while auditing uncertainties, including FV, auditors must consider the impact of significant risks arise from uncertainties. Moreover, the auditor is expected to examine the intent and ability of managers in estimating uncertainties. The auditor while auditing FV measurement has to adjust his own range estimates. Furthermore, Martin et al. (2006, p. 288) recommend auditors to understand “valuation models, significant assumptions, audit procedures, and possible biases” during an audit of FV estimates. To conclude with, it has been demonstrated that a high degree of emphasis should be supplied to adjust range estimates. Failure to adjust range estimates in the uncertain audit environment has been considered as a failure to losses of misstatements.

2.5 Auditing Risk

Pratt & Van Peursem (19+93, p .11) define auditing risk as, “the risk that the auditor may express an inappropriate opinion of the financial statements under review.” Auditing risk is a systematic approach that allows an auditor to manage and reduce the impact of the risks of material misstatement on financial statements. Furthermore, risk is reciprocal of confidence that leads to financial statement distortion. To refrain from such distortions, researchers have recommended avoiding risk from the source and using risk management techniques (Flint, 1988; Mock & Washington, 1998 and Eilifsen et al., 2010)

It has been demonstrated so far that activities that degraded the qualities of financial statements are inappropriate and should be managed. Audit firms must identify groups of audit risks (whether it is inherent, control, sampling, or quality control risk).
Identification of the audit risks shows how well they are systematically prepared to audit risks and to maintain the quality of financial statements. Maintaining the quality of financial reporting is achieved by reducing the impact of audit risks.

### 2.6 Major Phases of an Audit

The phases of auditing described by Eilifsen et al. (2010, p. 16) are chosen because they help to construct an academic background. The theoretical background is used in the analysis section to answer the proposed research questions of this study. Moreover, the methods and procedures of auditing FV can be addressed from practical perspectives. There are seven phases of auditing proposed by Eilifsen et al. (2010). These phases are provided below in Figure 2-1.

![Figure 2-1: Major Phases of an Audit](Source: adapted from Eilifsen et al., 2010, p. 16.)

#### 2.6.1 Understanding the Client and Surrounding Environment

The importance of understanding the general business environment is to assist auditors to audit faster and avoid risk from the beginning (Eilifsen et al., 2010, p.16). Furthermore, it has been argued that it helps the auditor to evaluate the nature and extent of the audit work. Evaluating the nature and extent of audit work in turn, improves the quality of financial statements (Pratt & Van Peursem, 1993, p.12).

Johnstone & Bedard (2003) analyze the impact of risk management strategy over the client acceptance procedure. They found a correlation between the likelihood of risk confined to clients and the client - acceptance decision for auditing. Clients subjected to lower risk, and fewer frauds are accepted and the reverse is true. Furthermore, their study has seen the client acceptance as a key step of the audit process similar to what has been explained by Johnstone (2000, p.25). They also point out that audit firms
should specify the nature of the client before accepting the client for evaluation. This has shown that understanding the client helps auditors to identify challenges of auditing FV from the inception of the audit.

According to Hermaj (2002, p.54-56) and Pratt & Van Peursem (1993, p. 12), the client identification process involves the evaluation of the responsibility and competence of managers. Furthermore, the stage involves analysis of auditor's understanding of risks, planning and control activities to fulfill the audit objective. At this stage, the auditor should carefully identify risk assessment procedures (Johnstone, 2000). Moreover, in auditing FV, the auditor should know and evaluate the overall environment of the firm. Evaluating the firm can also lead the auditor to discover more error and fraud (Hermaj, 2002 p.54-56). Though the researcher found remarkably insufficient research related to auditing FVM, this study using many of the existing research papers deal with the relationship between auditing, risk evaluation, audit fee and client agreement able to identify problems of auditing FV. For example, in identifying the challenges of auditing FVMs, auditors could appropriately use the strategies such as the client acceptance models designed by Johnstone & Bedard (2003) and Johnstone (2000) that have developed a risk-based framework. The model supports audit research to analyze the client and reduce the severity of engagement loss.

In brief, understanding the client is considered as a vital step in auditing. It is crucial because the auditor can consider the general auditing procedures, understanding the intent of managers, the planning stage of auditing and understanding firm's relation to external shareholders.

### 2.6.2 Audit Planning

Audit planning is considered as a prominent step of the auditing process that leads to qualitative financial statement presentations (Mellaieu, 1992; Roy, 1986 & Hermaj, 2002, p.55-56). Mellaieu (1992, p. 12) defines audit planning as an instant the auditor could establish a clear understanding of the nature of the task to be performed in relation to the client. According to this author, two elements are essential to understand the planning phase of the audit. First, the planning must be performed at client identification phase. Second, the planning tasks must be associated with planning audit strategies, tests of control, engagement planning, and disclosure requirements. Furthermore, Hermaj (2002, p.55-56) suggests continuous monitoring of the progress of a plan to enhance the quality of an audit report. The author further claims that successive revision of a plan improves not only the efficiency of auditor's commitment to accomplish a task, but it also improves the quality of the audit report.

According to Elder et al. (2010, p. 160), the audit process contains three levels of planning. Initially, the auditor must examine the client. Examining the client includes understanding the nature of the client business and strategies. Next, elements of internal control (tests of control, risk assessment, and analytical procedures) at the transaction level are evaluated. Finally, details of information about sets of transactions are investigated. Hence, Evidence is collected, and an audit report is organized (Elder et al., 2010, p.163).
Discussing the essence of time and economic considerations, Roy (2008, p.21) discusses a two side’s matrix, which entails the planning process on two distinct levels. These levels are the “Matrix/Vertical audit planning, and horizontal/Financial Audit planning.” The matrix/vertical planning is performed on a departmental basis. Matrix planning is planning from top to down or right to left. Whereas, the horizontal/financial audit planning is performed when the auditor investigates accounts at a transaction level. Moreover, horizontal planning is more of checking different accounts starting from the first day of the client agreement to reporting date. Furthermore, horizontal audit planning is more comfortable with subjective estimates. Roy (2008) states that the auditors must understand both levels of the planning process, to resolve the complexities of audit planning.

2.6.3 Internal Control

Internal control has been regarded as a crucial step for understating the challenges of auditing fair values by a number of empirical researchers (Pannese & DelFavero, 2010; Martin et al., 2006; Kohlbeck et al., 2009; Benston, 2006 and Humphrey et al., 2009). Internal control encompasses from simple auditing steps to management responsibilities. In broad terms, it has an impact both on the internal and external financial reporting’s of the company.

The relationship between management’s responsibility and strength of internal control has been widely covered by the Sarbanes-Oxley Act section 302 (S 302) and section 404 (S 404). According to the Sarbanes-Oxley Act S 302, and S 404, management is responsible for creating a strong internal control structure. At the same time, the report identifies a distinction between the role and reporting period between management and external auditors. Managers are required to report annually on the strength of the internal and external control, and reliability of the accounting system. The act also added that the internal audit must state the role of management in maintaining a strong internal control. The rules stated that the audit report must include the existence of effective internal control, and appropriate audit procedures. Furthermore, the reliability of management assessments and estimates is considered as a key role in financial reporting. In Sarbanes-Oxley Act, every public listed company is required to examine the nature and validity of management reports.

Although management is responsible for the design and operability of the internal control (S 404), internal auditors are also expected to create an effort to improve the quality of financial reporting. It has been suggested from prior research that internal control procedures must present the procedure used for detecting errors and frauds (Pratt & Van Peursem, 1993, p.11). In this regard, the relationship between internal control mechanism and level of assertion has been widely described by Wallace & Kreutzfeldt (1991, p. 500). Wallace & Kreutzfeldt describe that an assertion helps to determine the quality of the financial report, and the level of audit risk. According to them, the level of assertion is directly related to the strengths of internal control. That is, the stronger the internal control mechanism, the lower the level of assertions is. Furthermore, their study shows the link between the work of internal control and external auditor reports that lead this discussion further to see the relationship and degree of reliance between internal and external auditors?
Turning down to see the degree of reliance on the work of internal auditors, the independent auditor could prove that the internal auditor is independent of operational activities of the client (Gramling et al., 2010, p 547-549). At this stage, the task of an independent auditor is to examine both financial and non-financial operations of the company, which includes the control elements of the entity. However, this strategy directly or indirectly affects the financial reporting and the audit quality (Kelly, 1997, p. 804).

**Role of Internal Audit on the Quality of External Auditors Reports**

A recent study that has been conducted by Solomon (2010, p. 184-190) has seen the role of independent auditors from a corporate governance point of view. Solomon (2010, p. 184) describe the importance of internal audit from two paradigms. First, paradigms related to the non-audit services. Second, those paradigms related to the rotation of auditors. In describing the non-audit services, Solomon supports the idea of having an independent internal auditor with disclosure requirements explained by Cadbury Report (1992, p.185). Both the Cadbury Report and Solomon have not supported the role of independent auditors in performing non-audit services to the client. This is because of the effects of irregular audit fees, and services rendered by internal auditors. Abnormal audit fees are considered impediments to fraud-free audit report (Cadbury Report, 1992, p.185). Nevertheless, Smith (2003, p. 3, par. 5-10) point out departures with the requirements of the Cadbury Report in terms of additional services. According to Smiths (2003), the internal auditors should not be restricted to other services (consultancy and IT services), since it does not affect the quality of an audit report and does not prompt for fraud. In determining the link between FV reporting, and audit fees, Gorchakov et al. (2012, p.28) analyzed European real estate industry, and they found that companies that are reporting in fair value are paying fewer audit fees than companies who recorded their assets at cost less depreciation.

When it comes to the second paradigm, the concept of auditor rotation, Solomon (2010, p. 185) discusses points of departures from the Cadbury Report. Solomon (2010, p. 185) argues the importance of auditor rotation to increase transparency and reduce fraud. However, the Smith’s report argues that the auditor rotation is a cost consuming procedure. So far, it has been shown that the independence of internal auditors is ideal for the quality of financial statement reports.

From another angle, Apostolou et al. (2001, p.48), have described the importance of increasing the awareness level of auditors about frauds and procedures to understand frauds to improve an audit quality. Moreover, the internal audit is equally valuable and considered as an important step towards reducing errors, increase quality of financial reporting. Furthermore, internal control decreases the level of fraud and intentional managerial biases (Solomon, 2010, p.185-190 and Kim &Noffisinger, 2007).

**Auditor's Reliance on Internal Audits**

Understanding how the internal audit is performed, and its significance for a FV audit, has implications related to the extent of external audit quality. However, the degree of reliance on an internal auditor’s work is a debate among researchers in determining the
level of confidence. Maletta and Kidda (1993, p.681) analyze the dependence of independent (external auditors) auditors from three different perspectives: “objectivity, competence, and work performed.” In this regard, they found a positive relation with each approach and stated that the more reliance on these perspectives, the higher its influence to internal auditors' works in terms of time, coverage and evaluation procedures, which in turn affect the audit fee and detection of fraud (Felix et al., 2001).

The work of internal auditors can support external auditors in different ways. It has been argued by Gramling et al. (2004, p. 197) that the more quality of the internal auditor duties, the less the effort exerted by independent auditors. In other words, it reduces the independent auditor's duty of checking and minimizes the time spent on auditing each account detail. Moreover, Gramling et al. (2004, p. 194) adhered to the work of an internal auditor being useful for quality assurance services and performing tests of control procedures. In this regard, they have also pointed out that the presence of internal auditors does not only help to minimize conflicts between managers and shareholders, but it also increases the employee's attitude towards better service, and reduces errors and frauds that might occur due to poor control. Christensen et al. (2012, p.141) state that the assurance provided by auditors related the audit of fair value depends on the materiality of management estimates. They elaborate that auditors provide “positive assurance with respect to the rigor and soundness of the entity's estimation model, valuation processes, and related controls, and provide negative assurance with respect to the fairness of the reported point estimate.”

2.6.4 Audit Business Processes and Related Accounts

At this phase of the audit, the auditor is responsible for maintaining accounting balances and transactions (Eilifsen, et al., 2010, p. 19). Eilifsen, et al. (2010) describe that substantive or analytical procedures are used to collect, and provide assertions in the financial statement. They also explain that auditors are required to provide an evidence for account balances. Evidence can be collected from banks, customers, creditors, and related parties. Audit evidence could also be a policy of authorizations, documents and the auditor's confirmations (Knechel, 2001, p. 218-219). According to Knechel (2001), substantive procedures are procedures help to substantiate the correctness of account balances and the amounts of management estimates. Procedures include getting approval from third parties, which could be appropriate for having confirmation for audit of FVs (Humphrey et al., 2009, p.819).

Kohlbeck, et al. (2009, p. 53) explain that auditing FV incorporates substantive procedures at the internal control stage of the audit. They further argue that the auditor should plan the “nature, extent and timing of substantive procedures used for the audit.” Thus, within the light of the definition described by Knechel (2001) and the approach described by Kohlbeck, et al. (2009, p. 53), it has been argued that auditors must check FVs of individual transactions such as account payables, revenue account, and purchase and inventory evaluations can apply substantive procedure. In addition, substantive procedures are useful to identify material misstatement of the identified accounts of interest requiring further investigation (Eilifsen et al., 2010, p. 151).
2.6.5 Completing the Audit

The independent auditor must ensure that all accounting standards and disclosure requirements are covered by internal auditors in preparing their annual statements. For instance, the independent auditor should affirm that review of contingent liabilities, commitments, and subsequent events are covered thoroughly. Furthermore, the auditor must evaluate the relevance of audit evidence and other material events, which are discovered at the time of the internal auditor’s report (Eilifsen, et al., 2010, p. 157).

2.6.6 Evaluate and Issue an Audit Report

At this stage of the audit, the task of the auditor decides his or her audit opinion on the financial statement. The audit opinion depends on the degree of materiality in accordance with the accounting regulations adopted by companies. The independent auditor expresses his or her position in an evaluation report based on results from all previous stages (Knechel, 2001, p.561-562). The audit reports are highly dependent on the outcome of the evidence collected. It could be the form of an unqualified opinion, qualified opinion, adverse opinion, or disclaimer (Eilifsen et al., 2010, p. 554). When it comes to the type of audit report that auditors need to prepare, Chen et al. (2010, p.1) recommend the preparation of a conservative reporting in contrary to the suggestion provided from Song et al. (2010), cited in Chen et al.( 2012, p.5). Chen et al. (2012, p.5) argues that it is not the quality of auditors involved in the audit process but the auditor conservatism that brings a quality audit report. Bell & Griffin (2012, p. 150) basing their argument on the present head of POCAB, James Doty, states that public companies are required to provide “useful, relevant, and timely information to users of financial statement.” Francis (2004) argues that the quality of an audit report is dependent on the number of lawsuits the audit firm encounters.

2.7 Other Audit Considerations

The following few paragraphs are considerations, which are described as a theoretical background. The content of the paragraphs would help the current research answer the designed research questions.

2.8 Audit Evidence

According to Pratt & Van Peursem (1993, p.11-12), by collecting satisfactory audit evidence financial statements can pull demand from shareholders particularly interested in the outlook of the financial statement and buying outstanding shares. The authors based up on the idea of Mautz & Sharaf (1961, cited in Pratt & Van Peursem, 1993, p. 11); pinpoint the relationship between cost and quality of audit evidence. They stated the correlation as the level of audit fee increases, the quality of financial statements and contextual elements of the audit process increases.

Chen et al. (2010, p.9) adhere to the importance of filling an evidence for the reasonableness of management estimates. Similarly, Bell & Griffin (2012,p.150) argues that what affects the audit report related to fair values is what is going to be “presented fairly with respect to all material respects. On the other hand, Martin, et al. (2006, p.
synthesized that to deliver high quality of audit evidence, “auditors must effectively manage the specialists work.” They also argue that in auditing FV estimates, auditors should expect more evidence from managers to reduce the degree of confirmation bias.

Rizzo et al. (1970, p. 154), described an excessive audit fee is a controlling factor in distorting the quality of financial statement. Furthermore, it is recent evidence that similar context of the economic pressures has happened in Enron and Parmalat. Hence, audit evidence has strong implications for the quality of financial reporting.

2.9 Materiality Concerns

The concept of materiality, according to Pratt & Van Peursem (1993, p.12) is a misstatement that changes the economic decision-making ability of users. Messier et al. (2008 cited in Griffin, 2010, p.10), discuss materiality as something that is influencing the work of auditors and is an indication of an unqualified audit report. Christensen et al. (2012, p.136 & 143) show the effect of highly volatile estimates and their material effects. In this regard, they demonstrate that very small adjustments in fair value management estimates had a material effect on the income statement. Accordingly, they recommend the delivery of high level of assurance in situations where the auditor issued an unqualified auditor’s report. Overall, they recommend that small changes in highly uncertain estimates should be substantiated with appropriate evidence due to the material effects on the income statement. However, the concepts of materiality have widely distinguished in the literature. Meanwhile, some authors argue that materiality creates adverse reactions to assessment of financial statements that eventually become a basis for issuing unqualified reports (Griffin, 2010, p.10).

2.9.1 Disclosure of Fair Value accounting

The issue of disclosure in fair value reporting received a prominent consideration from IASB. Due to its importance to the audit report, researchers have suggested different settings for the format and contents of FV disclosure. In this regard, Bratten et al. (2012, p. 14) adhere to the complexity of disclosing issues related to fair value estimates. They argue that the complexity of the disclosure aggravates due to the difficulty of conducting substantive tests in the uncertainties of fair values. For (Bratten et al., 2012, p. 14), a qualitative disclosure is mandatory including issues related to the “valuation model, tests, and assumptions” used to measure management estimates. Furthermore, Bell & Griffin (2012, p.151) also consider the importance of quantitative disclosures of fair values are mandatory. According to Bell & Griffin (2012, p. 153), auditors should provide adequate quantitative disclosures, including “management’s estimation processes, assumptions, and historical estimation accuracy.” Whereas, Christensen et al. (2012, p. 133) explain that disclosures of financial reports should be sufficiently explain the degree of uncertainties confined to measurement of fair value valuations. However, they remind that footnote disclosures are not reliable sources of information without sufficient information. However, the importance of having an adequate sufficient disclosure of FV is barely covered by previous studies until recently by (Goncharov et al., 2012, p. 153). They argue that disclosure requirements help management and auditors in three ways. Firstly, disclosure help managers improve
“fair value process and controls.” Secondly, it “enhances the auditors’ ability to add value to users by providing reasonable assurance on FVA accountability measures that can be edited with substantially reduced levels of auditor subjectivity,” and finally, “it reduces managers’ and auditors’ litigation risks.

2.9.2 Going Concern

An auditor can issue a going-concern paragraph in their report if he thinks that the client's ability to remain in business is doubtful, as such an unqualified report should be issued with a modified explanatory paragraph explaining the concern (Knechel, 2001, p. 568). All financial statements are prepared on a going concern unless the management has the intent to cease operations. In evaluating the going-concern assumptions, the auditor should verify procedures in planning, performing and completing the audit prove that there is no significant doubt about the entity's ability to continue in business for at least the next fiscal year (Eilifsen, et al., 2010, p.530).

2.10 Working Model

Figure 2-2: Working Model adapted from IFAC (2010, ISA 540), and Eilifsen et al. (2010, p. 16)

Although there are no significant prior research that has been conducted similar to this study, this study has followed a working model adapted from (IFAC, 2010; ISA, 540 & Eilifsen et al., 2010, p. 16). This working model has three critical stages to present and analyze the empirical results. Firstly, the phases of auditing were taken from Eilifsen (2010, p.16) as an inspiration and further discussion were made based on numerous previous studies. Secondly, the features of ISA 540 and its practical application are explained. Finally, the result is presented and the research gaps in AFV are identified. Following the model has two crucial advantages. Firstly, understanding each phase of auditing, and challenges intertwined in each phase provides the current study to integrated views on auditing FVM and disclosures. Moreover, the approaches helped to examine the methods, and approaches used by auditors while auditing FV. Secondly,
the approaches in the model helped to contribute knowledge to research gap that exists in the academia. Hence, discussion is done based on results from the first and second step.

2.11 Summary

In an ideal world, measuring FV is more difficult when the market is uncertain. FV demands smooth markets, arm’s length transactions and willing parties. When it comes to evaluation of FV, the auditor should be knowledgeable on how to estimate FVs. This chapter describes points that are relevant to design research questions and to meet the research purpose. The discussion of the literature review was presented in two sections. Firstly, issues related to FV measurement and disclosures are covered. Secondly, issues related to auditing and the working model is described in detail.

Overall, the auditor should be capable of examining or tracing relevant audit documents to understand how management estimates FVs of an asset. Details of the next chapter discuss the auditors approach to FV. Auditing FV is necessary due to the need to improve financial statements with more reliable information as well as to produce results relevant to stakeholders’ decision making. Client firms apply different valuation approaches to maintain proper a degree of assurance in their financial reports. However, emphasis was provided for accuracy of estimates and analysis of the estimated result. Despite this fact, the standard recommends a coherent and comparable measurement of FV. Maintaining consistent and related measurements on financial reports is achieved following the working model illustrated in Figure 2, 2.
3 Auditing Fair Value Accounting Measurement and Disclosures

This chapter discusses the features of ISA 540. These features are risk based approach, estimation of uncertainties, responding to significant risks, managing risks, and SME considerations. Other pertinent ISA auditing standards related to auditing of fair value are assessed and raised between discussions. Points of the argument that are further analyzed in terms of related auditing academic articles. Arguments against, and in favor of ISA by individual researchers and professional associations are briefly summarized.

3.1 Background

Following the credit crises in 2008, fair value accounting, and fair value audit have been the focus of reforms by international, as well as national accounting and auditing bodies. The reliability of fair value estimates has become a vital concern to investors and other related financial statement users. It is imperative for professional accounting bodies to respond appropriately, improve the reliability of fair value estimates and ensure the reliability of fair value measurement and disclosure practice (IAASB, 2008,p.8-12). In dealing with the issue of fair value accounting, AICPA and PCAOB have responded by issuing guidelines for auditing of fair value reporting as described in the following subsections.

3.2 Audit Considerations While Auditing Fair Value Estimates

In situations where the auditor is conducting a fair value audit related to national GAAP, the auditor should evaluate the conformity of fair value measurements with national GAAP (Dauber et al. 2009, p.132). Furthermore, the auditor should also understand general business conditions of the client. The idea of Dauber et al. (2009, p.132) is also supported by Eilifsen et al. (2010, p.16-19.) that emphasizes the importance of analyzing the client environment before accepting the engagement.

The advantage of understanding the business environment is to increases the awareness of the auditor about risks associated with the general operation of the business. In addition, the auditor can easily examine the correlation between clients, the government, shareholders, and employees. Examining the relationships of the business to the general stakeholder also enhances the quality of the audit report. Eilifsen et al (2010, p.78-81) has also described that access to market information relevant to audit management estimates and valuation techniques has a direct impact on the quality of the audit report. Moreover, they further argue that understanding the client help auditors to evaluate measurements applied to measure values of intangible asset and business combinations. It also facilitates the process of evaluating the conformity of national GAAP with impairment losses. Dauber et al. (2009, p. 160) have also stressed that while auditing fair value measurements and disclosures, the auditor should evaluate “intent and ability of management.” In this regard, while auditing the general business environment of the client, the auditor should follow certain procedures. Among those required procedures, the following graph has shown significant considerations for the
risk assessment procedures related to ISA 540. Figure 3.1 also depicts the roles of the auditor in understanding the business environment and other audit procedures.

Figure 3-1: An overview of the auditor's assessment of Business Risks and Risks of material misstatements with ISA 540 perspectives. (Source: Eilifsen et al., 2010, p. 81)

### 3.3 Risk Assessment Procedures

The ISA 540 standard describes audit procedures that the auditor should focus on. Reminding the difficulty of measuring fair value measurements in times of uncertainties, the standard identified groups of accounts to be considered with a certain degree of emphasis. For example, accounts as an allowance for doubtful accounts have been offered low levels of emphasis than accounts subjected to a high degree of complex measurement; say finical instruments (IFAC 2010, ISA 540, par. A1-A51). Eilifsen et al. (2010; p. 103) have listed factors that the auditor should consider in dealing with a fair value audit. Factors affecting the degree of estimation uncertainties, according to these authors are:

- The extent to which the accounting estimate depends on the judgment;
- The sensitivity of the accounting estimates to changes in assumptions;
- The existence of recognized measurement techniques that may mitigate the estimation uncertainty;
✓ The length of the forecast period and the relevance of data drawn from past events to forecast future events;
✓ The availability of reliable data from external sources;
✓ The extent to which the accounting estimate is based on observable or unobservable inputs”

3.4 Estimation of Uncertainties

It has been argued that measuring fair value is extremely difficult when the market is illiquid, and information is readily available. In the estimation of uncertainties, ISA addresses two critical points that need to be emphasized. At first, the “nature of estimation uncertainty” (A38) must be understood by the auditor. Secondly, substantive analysis of “evaluation of estimation uncertainties” should be performed (A 116-A 119). In dealing with the evaluation of the nature of uncertainties, the ISA has identified accepted auditing procedures to increase the skeptics of application. Among the procedures outlined by the ISA 540 (IFAC, ISA 540, par. A116-119) includes “Evaluating the degree of estimation uncertainty associated with an accounting estimate includes consideration of judgment involved, sensitivity to changes in assumptions, and the extent to which the estimate is based on observation or unobservable inputs.” The report also described that the evaluation of estimating uncertainties as a complement to the first requirement.

The impact of estimation of uncertainties has recently been studied by Christensen et al. (2012, p. 127). They found the estimation of uncertainties are complex in nature and has a substantial impact. They further added that a “very small adjustment in the estimation of uncertainties significantly changes the values of accounting” (Christensen et al. 2012, p.128). They also stress on the significance of implementing transparent financial presentation and providing an assurance service as a remedy to the problems related to estimation of uncertainties. Moreover, the issue of transparency has been proposed as a remedy challenges in fair value estimates by (Bell and Griffin, 2012, p. 150).

3.5 Responding to Significant Risks

In replying and communicating the risks inherent to fair value accounting estimates, ISA provides certain procedures to follow. These procedures are in addition to the auditor's own intellectual and professional judgments. In doing so, according to ISA 540 (Par. A 52-A58), the auditor should understand the appropriateness of standards applied in evaluating management estimates, and accounting estimates. The standard in addition adheres to the appropriateness of the newly adopted method of estimating fair values when different from the prior period. Furthermore, the auditor is expected to describe and communicate with the client if there is a material misstatement.

Subsequent paragraphs of the ISA 540 have also assessed the importance of assessing fair value estimates at the first place. Then, the auditor should address value estimates with substantial complement of audit evidence from the inception of the audit to the final reporting phase. Accordingly, the auditor should test the management estimates
following the same method that the management has applied or developing his own method of estimate. Finally, the reasonableness of variations should be reported.

### 3.6 Management Biases

Management estimates are amongst the central point of discussion covered by ISA 540. In dealing issues related to management bias. The ISA also adhered to the review of managements' own judgment and basis of estimation. Furthermore, the standard adheres to the importance of investigating the appropriateness of the accounting estimates, and reconciliation of management estimates. Consequently, the auditor should include in his report about the “susceptibility of management estimates.” The problem to the auditor is identifying management frauds because of the subjective nature of management estimates. In doing so, the auditor is required to analyze the intent of management estimates, and reliability of the fair value estimates including an intention for fraud.

According to Dauber et al. (2009, p. 158-159), and their adherence with ISA 315(IFAC, 2010), understanding the intent and ability of management has two significant advantages. First, it helps auditors in understanding why the management bought or reported such an assets and liabilities. Secondly, it assists in evaluating management's reasons for assessing the ability to contractual commitments (Dauber et al. 2009, p.161). The authors, Dauber et al. (2009, p.161) in analyzing their view on ISA 315, and ISA 240 adhere to some important points that must be examined. The points are related to the entities risk management procedure and management estimates. At this instance, Dauber et al. (2009, p.158-162) stress on the importance of evaluation procedures to reduce the extent of audit investigation. They further elaborate the issue that the auditor should use inquiries while detecting fraud. The possibility of management frauds has also received a prominent place in their study in conformity with ISA 540.

Dauber et al. (2009, p.161) state that the auditor by using inquiries can identify the root causes of frauds such as incentives and motives presented for misleading presentation. Thus, auditors while conducting audits of fair value can apply detail inquiries to reduce fraud in handling estimates, and identify unusual transactions. Both Eilifsen et al. (2010, p.79-93), and Dauber et al. (2009, p. 162) recommended the use of questionnaires, discussion with management, written plans, inquiries, and checking other documents related to fair value measurement, accounting valuation, and disclosures during audits of management bias. Chen et al. (2010, p.27) after considering the practicality of management estimates in the banking sector, they found that the auditors require more conservative financial reporting for highly uncertain level of assets and liabilities. Furthermore, they also found that auditors working at banks need more of conservative accounting when management estimates of the client firm are less reliably and verifiable. They further elaborated that managers do not need conservative reporting as auditors do.
3.7 Disclosure

Disclosure is one of the key considerations adhered by IFAC. The IFAC under ISA 540 has also issued relevant considerations while auditing fair value. The standard adheres to the importance of disclosures while auditing fair value measurements, including accounting estimates. In dealing with the issue, according to section A.120-123 of the ISA 540, the auditor should get sufficient audit evidence pertaining to fraud and accounting estimates before disclosing the information.

3.8 Summary

In this chapter, first, the concept of the business environment of the client from the perspective of ISA 540 was over viewed. Then, a comprehensive discussion was provided related to the ISA 540 paragraphs. The discussion covered topics, including the risk assessment methodology, the importance of auditing risk, strategies relevant to audit uncertainties. Furthermore, the importance of disclosures and audit evidence were briefly discussed. The reasons why a separate chapter was dedicated to ISA 540 perspectives are due to its importance to the empirical study section of the thesis. In the empirical finding, and analysis chapters of the thesis, the application of ISA 540 and related pronouncements were applied for further analysis. Hence, the importance of auditing FVMs as a cornerstone subject in the auditing profession needed to be emphasized. The next section of the thesis deals with the empirical study section; wherein, after review of practical methods and procedures of the phases of auditing, detail analyses of the challenges of auditing fair values are presented. The points described in introduction and literature review of the study are used for further investigation under the empirical study and discussion sections of the study.
4 Methodology

This chapter briefly presents the research methods that are used to collect the data and compile the whole thesis. All approaches for empirical analysis and details of the research methods are covered thoroughly.

4.1 Research Philosophy

There are two philosophical views in social science research. These are the epistemological and ontological views. The epistemological considerations are broken down into two philosophical sub-views. These are the ‘positivism and interpretivism’ (Bryman & Bell, 2011, p. 15). According to these authors, the positivist approach views social science actors as the leading factor for both social and natural science studies. The data collected by researchers under the positivist approach can contribute substantial knowledge to build social, and natural science theories. On the other hand, interpretivism deals with people and their institutional frameworks. Under interpretivism, the data collected by natural science researchers cannot interpret social actors. On the contrary, the data collected by social science researchers can contribute or build theories for natural science actors. Furthermore, under the epistemological considerations, the collected data are subjective in nature and truth is expected to be revealed. On the other hand, there is ontology, which is concerned with an “individual's perception of reality” (Bryman & Bell, 2011, p. 20).

The perception in ontology could be subjective or objective, based on the individual’s judgment. There are two philosophical social science research positions. These are Objectivism and Constructionism. Objectivism infers that the social phenomenon and its meanings are independent of social actors. Then, 'constructionism' position views the social phenomena are accomplished by social actors (Bryman & Bell, 2011, p. 21). In this regard, social actors are not continually accomplishing all social phenomena and their meanings. Some phenomena occur independently because they do not influence every social actor that exists within the environment. As a result, constructivism yields a subjective notion of what reality is while objectivism offers an objective interpretation of reality.

This study conducted interviews from authorized auditors and collected data from primary sources. In addition, this study is subjective in nature, as fair value estimates are dependent on the accuracy of management estimates. Moreover, the current study applied the constructionist viewpoint of the ontological research philosophy. The reason was that the quality of the audit of fair value is dependent on the experience of the auditors. Furthermore, the auditors’ interpretation of methods and procedures applied at their individual client firms incorporate viewing points from their own perception. Further, as the interpretation of the AFV is dependent on the norms, and values of the auditor, this study uses the interpretive approach. Thus, the data considered within this study is potentially affected from two sources: the respondents, and managers or valuation experts. That makes the epistemological considerations, with an interpretivism approach the major research philosophy of the thesis.
4.2 Research Design
4.2.1 Case Design

Before describing the case environment used in this study, readers should get a clear understanding of what a case study is. A case study, according to Gerring (2004, p. 342) is “an intensive study of a single unit for understanding a larger class of (similar) units.” The unit can be a “state, revolution, political party, electoral or person.” The author further clarifies that case studies are helpful resources to conduct detailed investigations on a particular subject. However, Yin (2009, p.17) states that case studies can be single or multiple depending on the purpose and motive of the researcher. As the purpose of this study was to understand and formulate justifiable theories related to the methods and approaches used by auditors from practical perspectives, a multiple case study design was used. Yin (2009, p.20) describes the following listed points as the major advantages of applying a multiple case study. These are: they

- Help to explore the subject in detail and formulate valid as well as reliable theories;
- Help to compile data from similar units;
- Enable the researcher to easily construct conclusions;
- Are also good to understand the specific features of the subject under study (Bryman & Bell, 2011, p. 63).

The application of the multiple case study design enhanced the investigation of the commonalities and the difference among the Big 4 Audit Firms. Moreover, the aim of taking four companies at the same time is to complement or fill out the gaps in the auditing profession, but not to compare their systems. Comparisons in this study were done only with the intention of collecting more information about the related topic so that it “promotes theoretical reflection on the findings” (Bryman & Bell, 2011, p. 63). Furthermore, by collecting data from multiple sources, the study answered targeted research questions. Answering research questions suited a purpose of a multiple case study (Yin, 2009, p.15). In addition, understanding issues from multiple case groups helped the researcher to answer targeted research questions more adequately (Yin, 2009, p. 50).

There are five types of case studies (Yin, 2003, cited in Bryman & Bell, 2011, p. 62). These are the “critical case, the unique case, the revelatory case, the repetitive or typical case, and the longitudinal case.” In this study, the revelatory case study was used. The revelatory case with the help of an inductive approach investigates a phenomenon where much has not been done previously (Bryman & Bell, 2011, p. 62). Hence, this study is revelatory in nature to an extent that no previous studies have been done from the application perspective. Overall, to achieve the purpose of the paper, this study used data derived from the Big 4 Audit Firms for further discussion and analysis. The study also used the data derived from the case companies to contribute knowledge to the auditing profession after thoroughly investigating how auditors at those audit firms applied theory to practice.
Unit of Analysis

The level of analysis considered for a case study plays a pivotal role in research design during a case study approach. According to Bryman & Bell, (2011, p. 67) the differences in the unit of analysis are called “SOGI model (Societies, organizations, groups and individuals).” The research questions defined in this study were designed to explain the methods and approaches applied by auditors. Thus, the units of analysis for this study were auditors at the Big 4 Audit Firms. Respondents were auditors assigned by case firms. This enabled the study to find answers to the research questions from a primary source.

Questionnaires

Questionnaires were designed to seek the right answers to the research questions of this study. The questionnaires were structured in an interactive and simplified form to enable this study to collect the data easily. The questionnaires consisted of two sections. First, a semi-structured approach was chosen because it saved the time and energy of respondents. Second, an opinion survey was used. Hence, the questionnaires helped the interviewer to collect data easily, and the results were suitable for qualitative analysis. In addition, the study followed a simplified approach that motivated respondents to address the complex nature of FV. The study used semi-structured questionnaires for simplification (Bryman & Bell, 2011, p. 62). Moreover, questions related to the challenges of AFV helped to prioritize subjects which are complex in nature, for example, auditing fair values. The questionnaire for the challenges of auditing fair value was organized to elicit broad understanding of the challenges of auditing fair values. Questionnaires, to some extent, were adapted from previous studies, for instance, Kumarasiri, J. (2010), and Martin et al. (2006, p.285).

Focus Country

The study mainly focused on the Big 4 Audit Firms in Sweden, though some interviews were conducted in Denmark. This is because of two basic reasons. First, Sweden is one of the “World’s largest free trade market and often the Scandinavian countries are regarded as a frontier in adopting new technologies” (Invest Sweden, 2012). Second, according to Invest Sweden (2012), Sweden is also considered as a prime location for centralized market operation in Northern Europe. Hence, choosing Sweden for this study gave the researcher the confidence to complete this study.

4.2.2 Deductive and Inductive Approach

There are two types of research methods to develop knowledge in social science. These are the Deductive and Inductive Approaches (Bryan & Bell, 2007, p. 11). With the Deductive Approach, the researcher contemplates related theories about domains of his or her research interest. In doing so, the researcher can deduce a hypothesis which is also subjected to empirical scrutiny. Thus the relation is from theory to observation and back to knowledge creation. The deductive approach starts from previous studies. By doing so, deductive reasoning enables the researcher to analyze the outcome of the
research based on the theory constructed in the frame of reference. This infers that the deductive approach plays a crucial role in the formulation of a hypothesis.

Coming to the definition of an inductive approach, Bryan & Bell (2007, p. 11) describe the approach as a mechanism where the researcher can see the relationship between theories and facts. The researcher can collect data beginning from a single concept or a particular issue to more general concepts. Thus, the inductive approach helps researchers to generalize ideas from specific issues. The relation here is that the researcher first observes and then comes back to the theory to provide conclusions (Bryan & Bell, 2007, p. 11). Blaikie (2000, p. 114-115) states that generalization of the data during a case study can be achieved by collecting data following different patterns of data collection. This study aimed to understand the methods and approaches applied by auditors from the practical perspective. If this study translated the theoretical framework into reality, there is no point of conducting this study since there are significant audit guides that address the methods and approaches to be applied by auditors. Thus, the best possible means of conducting a research is from the research gap. The research gap is that there are no realistic studies related to the AFV. Thus, the practical method and approach applied by auditors required a multiple case study. Consequently, from a multiple case study a theory can be generated. This is a crucial concept of the inductive approach. Hence, the inductive approach provides a detailed empirical analysis of the data collected. To sum up, the current study deployed the inductive approach due to several reasons. First, the existing study examined a phenomenon which required a case study to support the empirical findings. Second, in this study theories were expected to be developed due to the fact that a multiple case study was designed (Bryman & Bell, 2011, p 14& 573). Finally, this study is more qualitative in nature, to conclude events based on the empirical findings. The study further broke down the research methods into the quantitative and qualitative data methodologies in the next few paragraphs.

4.2.3 Quantitative and Qualitative Research Designs

The underlying aspect separating quantitative and qualitative approach lies in the methodological assumption, ontology and epistemology (Benbasat, et al., 1987, p. 369-370). Bryman & Bell (2011, p.234&397) mention the difficulty of integrating views on both methods

There are several reasons why this study chooses a qualitative method. The current study sought to explore the methods and procedures applied in AFVM and disclosures. In doing so, the study took an epistemological approach to yield an interpretivism view of what reality is. Furthermore, the study applied a qualitative approach to analyze the phenomenon under investigation that required a case study. The main aim of the qualitative method was to integrate views of auditors on events that are subjective in nature. Equally important, this study used semi-structured questionnaires. The qualitative method is believed to suit a case study as case studies incorporate in-depth interviews with the help of semi-structured questionnaires (Eisenhardt, 1991, p. 531). In addition, understanding detailed accounts of a subjective phenomenon is the target of most qualitative studies (Bryman & Bell, 2011, p. 403). On the other hand, there is a quantitative method that aims to organize, classify, and count observed features.
Moreover, it helps to construct a statistical model, to formulate a principle and provide an explanation for the observed phenomenon (Eisenhardt, 1991, p. 531).

4.2.4 Literature Review

A significant proportion of the literature search was done through the database of the Umeå University library. It was possible to search relevant books and articles through the library database. Through the University database, the study used other databases, such as, Business Source Premiere, Emerald Full text, Elsevier Science Direct, Wiley Inter science and Album. However, finding articles related to the current study was very difficult. The literature search has used keywords. Keywords include: Fair Value Measurement and Disclosures, Management Bias, Verification, Reliability, International Standards on Auditing (ISA), Auditing Uncertainties, Fair Value accounting, and phases of auditing.

4.3 Data Collection and Research Approach

Since the objective of a research is to realize the main purpose, the study chose a research approach that assisted to answer the research questions. The research approach helped to build a framework that is in line with the research questions (Bryman & Bell, 2007, p.11). The value of a research approach to a researcher is to guide the researcher(s) how to use previously done research studies. A research approach assists researchers to develop a hypothesis and select the right choices of variables (Yin, 2009, p. 1-3). Thus, the following research approaches were considered relevant to answer the deemed purpose of the study.

The quality of a data collected from business research is dependent on the research questions (Yin, 2009, p.8). Moreover, the author argues that the design of a research question is affected by the research method. There are three research approaches that are linked to the research method. These approaches are the “exploratory purpose, descriptive purpose, and explanatory purpose” of the research. Yin (2009) recommends using the explanatory research approach and “how and why” research questions during case studies. However, the author has provided certain requirements for the usage of “what” research questions during a case study. Yin (2009) further elaborates that “what” questions can be used when the goal of the research is to understand a specific research phenomena (Yin, 2009, p. 9). Furthermore, the “how and why” questions are important when the researcher aims to test theories developed from previous studies. In addition, Eisenhardt (1991, p.620, cited in Chetty, 1996, p.77) argues that the aim of the multiple case study is “theory development.”

This study reconciled suggestions provided by Yin (2009, p.8) and Eisenhardt (1991, p.620) related to which research questions to use and the research approaches to apply. Hence, the current study applied the “what, why, and how” research questions at the same time. The existing study aims to understand what auditors considered relevant to evaluate the reliability of information, understand the challenges of auditing FV, and attest to the relevance of management estimates. Understanding a research phenomenon is more exploratory in nature. Thus, explanatory research approach was the main approach used in this study because of three main reasons. First, the aim of this study is
not only to understand what methods and procedures the auditors are applying, but also why those methods and procedures are applied by auditors at the Big 4 Audit Firms. Second, it helped this study to analyze the application of previously conducted research from a practical perspective. Third, it enabled this study to identify, and see consistencies of challenges of auditing fair values from the application perspective. Overall, the main research purpose of this study was an explanatory approach. Nevertheless, the application of exploratory and explanatory research methods is feasible when a survey is aiding a case study (Yin, 2011, p. 8).

### 4.3.1 Data Sources

The current study compiled data from different sources to address the research questions. Data sources can be categorized into two. These are the primary and secondary sources. According to Yin (2009, p 102), there are six sources of evidence, which can be four are used for case studies. These sources are listed in Table 4.1. However, among the six sources listed in the table, Yin (2009, p.102) states that the “interviews, direct observation, participant observation, and physical artifacts” are methods applicable to the case study. Table 4.1 summarizes the strengths and weaknesses of the different sources of evidence.

In this study, documentation, interview, and direct observations were used to collect the data. However, as archival records are more suitable for quantitative studies, this study did not consider them. Moreover, participant observation was not applied as a data collection technique in this study. Furthermore, since the nature of the study was different from cultural studies, physical artifacts are not considered in this study.

#### Table 4-1: Data Collection methods Strength and Weakness

<table>
<thead>
<tr>
<th>Sources of Evidence</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation</td>
<td>Stable: can be reviewed repeatedly Unobtrusive: not created as a result of the case Exact: contains exact names, references and details of an event Broad coverage: long span of time, many events and many settings</td>
<td>Irretrievably can be low Biased selectivity: if the collection is incomplete Reporting bias: reflects (unknown) bias of author Access: may be deliberately Blocked</td>
</tr>
<tr>
<td>Archival Records</td>
<td>Same as above for documentation Precise and quantitative</td>
<td>Same as above for documentation Accessibility due for privacy Reasons</td>
</tr>
<tr>
<td>Interviews</td>
<td>Targeted: focuses directly on case study topic Insightful: provides perceived casual inferences</td>
<td>Bias due to poorly constructed questionnaires Response bias Inaccuracies due to poor recall Reflexivity: interviewee gives what the interviewer wants to hear</td>
</tr>
<tr>
<td>Direct Observation</td>
<td>Reality: covers events in real time Contextual: covers a context of Event</td>
<td>Time-consuming Selectivity: unless broad coverage Reflexivity: event may proceed differently because it is observed Cost: hours need by human Observers</td>
</tr>
<tr>
<td>Participant</td>
<td>Same for direct observations</td>
<td>Same as for direct observations Bias due</td>
</tr>
</tbody>
</table>
### Observation

<table>
<thead>
<tr>
<th>...</th>
<th>Insightful into interpersonal behavior and motives</th>
<th>...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Artifacts</strong></td>
<td>Insightful into cultural features</td>
<td>Selective Availability</td>
</tr>
<tr>
<td></td>
<td>Insightful into technical Operations</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Yin, 2009, p.102)

#### 4.3.2 Criticisms of Secondary Data

According to Yin (2009, p.102-103), the main setback of the secondary data is time. Most information with secondary data usually dates back to half a decade or more. Due to this reason, it is argued that secondary data lose its validity and reliability. In such cases, while using secondary information, various sources were old hence updating is useful. Since, Most writings about the fair value were during and after the crisis of 2008 (Laux & Leuz, 2009, p. 1-3). Conclusively, the current study did not use secondary data except for a literature review.

#### 4.3.3 Practical Data Collection

The core purpose of this research was to look at the methods and approaches used by auditors while auditing fair values from practical perspectives. Therefore, the study conceptualized audit procedures practiced by the Big 4 Audit Firms. However, more emphasis was placed upon the reliability, management bias, verification and challenges of AFVMs. To some extent, this study tried to address ISA-related advanced auditing treatments. Conversely, the research questions presented in the introductory section of this paper were the basis for analysis. The following few paragraphs summarize the details of the data collection process.

### Finding and Selecting Participants

To fully equip the thesis with the necessary data, the participants in this study were not only geographically limited to Umeå but were also further selected from Stockholm and Copenhagen. All respondents in this study were from the Big 4 Audit Firms. The researcher visited in person with respondents from Ernst and Young, Deloitte and PwC. However, most of the interview processes at KPMG Copenhagen were conducted through phone, since the auditors from KPMG Umeå were not willing to participate in this study.

### Making an Initial Contact with Respondents

After the initial contacts were made, the researcher verified the purpose, method, and research questions of the study. Before the interview process was undertaken, the researcher discussed the timing and structure of the interview process. Then, the interview was conducted. See details of communication with each respondent in the Table 4. 2 presented below.
Conducting the In-depth Interview

The following Table summarizes details of an in-depth interview and the profile of the respondents. The Table 4.3 is organized according to relevance. It also provides an answer why the current study needs to address certain subjects.

Finalizing the Interview Process

The researcher expressed his gratitude to all the respondents and completed the data collection process. Completing the interview was a sign to move on to empirical analysis. The researcher agreed to provide a copy of the thesis upon request.

Table 4-2: Details of Interviews

<table>
<thead>
<tr>
<th>Name</th>
<th>Joakim Åström</th>
<th>Johan Petersson</th>
<th>Andreas Rinzen</th>
<th>Auditor-X and Angar Torscha</th>
<th>Auditor Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>Authorized auditor</td>
<td>An authorized Public Accountant and auditor</td>
<td>Authorized Public Accountant</td>
<td>X is authorized Public Accountant, and Angar Torscha is dep.manager</td>
<td>Authorized Public Accountant</td>
</tr>
<tr>
<td>Year of Experience</td>
<td>More than 10 years</td>
<td>More than 7 years</td>
<td>More than 20 years</td>
<td>X for more than 15 years and Angar Torscha for more than 20 years</td>
<td>For more than 20 years</td>
</tr>
<tr>
<td>Date of interview</td>
<td>April 15-2011</td>
<td>March 22, 29 and April 11, 2011</td>
<td>June 12, 2011</td>
<td>February 22, March 11, April 15 and September 17 2011</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>English</td>
<td>English</td>
<td>English</td>
<td>English</td>
<td>English</td>
</tr>
<tr>
<td>Communication</td>
<td>In-person</td>
<td>Via phone and In-person</td>
<td>In-person</td>
<td>In-person for Angar Torscha at USBE and on the phone with auditor-X</td>
<td>In-Person &amp; Via Phone</td>
</tr>
<tr>
<td>Interviewer</td>
<td>Kemal</td>
<td>Kemal</td>
<td>Kemal</td>
<td>Kemal</td>
<td>Kemal</td>
</tr>
<tr>
<td>Duration</td>
<td>1.5hrs</td>
<td>60min</td>
<td>45min</td>
<td>2 hrs. lecture with Angar Torscha and 35 min with</td>
<td>55 min</td>
</tr>
</tbody>
</table>
The current study was structured based on a case study approach. A Case study approach helps researchers investigate data using an open-ended questionnaire (Saunders et al., 2009, p.155-157). The study conducted the interview on a one-to-one basis with the respondent their office, except the one with Angar Torscha. The interview with Angar Torscha was conducted during his lecture at USBE lecture room S205 with a few minutes of personal discussions.

The interview guide was divided into two main sections. The first section was questionnaires related to the challenges of FVM and disclosures. Second, the current study used an open-ended questionnaire structure that treated the phases of auditing and challenges of auditing FVM and disclosures. The second part of the guide consisted all questions related to the methods, processes and approaches used by auditors while auditing fair values.

As mentioned in earlier chapters about the challenges of FV (see chapter two and three), the questionnaires were organized based on inferences from previous research. For instance, the problem of reliability has been outlined as the most challenging issue by Martin, et al. (2006, p. 287); Song et al. (2010, p. 1382) and Pannese &Delfavero (2010, p. 161). Mark Olson, the head of PCOAB has presented competence of auditors as being a potential challenge to auditors while auditing FVM and disclosures. The questionnaires covered highly ambiguous issues like management bias and verification problems while estimating FV of assets and liabilities. Furthermore, the study presented potential challenging questions related to leadership styles and roles of managers. Considering the role and leadership style of managers, the study provided a far-reaching picture of the subject matter under study. However, the generalizability and the quality of study was good as this study presented more extensive and thorough analysis issues related to the subject under study (Yin, 2009, p 119).

Yin (2009, p. 120) recommends researchers to design their questionnaires and data collection techniques before collecting the data. Following these premises, the current study designed a strategy to provide hints to the respondents whenever they had difficulties of understanding the research questions. Whenever problems of clarity occurred, the interviewee and the interviewer directed back to the main research
purpose and research questions. That way, the clarity of the current study was maintained, the research questions were addressed. Saunders et al. (2007, p. 159) recommend researchers to ask additional feedbacks and to submit copies of the research to interested parties. The researcher requested them, but all have said that they can download it online.

4.5 Approaches to Empirical Investigation and Analysis

4.5.1 Data Collection Mechanism

To analyze the data collected through the interview process and translate into a report, the author used the “Framework analysis” described by Rich & Spencer (1994). The Framework analysis has five principal stages: “Familiarization; identifying a thematic framework; indexing; charting; mapping and interpretation” Richie & Spencer (1994, p. 177).

- **Familiarization**: After completing the interview process, the interviewer at this stage is listening to recorded audios, rereading written transcripts, notes and summaries of the data. The main purpose of the stage is to summarize the overall picture of the interview which was conducted on a detailed and explanatory manner.

- **Identifying a thematic framework** is a process of writing abbreviations and phrases while conducting the interview. It also incorporates translating abbreviations into detailed texts after the interview. It includes detailed interpretation of descriptive statements and analysis of data formalized at the familiarization stage.

- **Indexing**: at this stage, essential elements of the data collected through the interview are highlighted. In addition, comparisons are made within case groups. The current study contains points that are collected and compiled from the Big 4 Audit Firms.

- **Charting**: at this stage, the original texts are interpreted and analyzed according to the theme of the analysis.

- **Mapping and interpretation**: at this stage all necessary actions are applied to analyze author's imagination. Both analytical and substantive procedures are used to build a stronger empirical analysis. Moreover, the interrelationship between similar data is formalized, identified in the thematic form, indexed and charted in a meaningful way.

4.5.2 Empirical Analysis

During the empirical analysis, the working model developed in the frame of reference chapter is applied. The working model is developed to help auditors from the Big 4 Audit Firms to understand the methods and approaches and resolve the challenges of AFV. The study followed the phases of auditing developed by Eilifsen, et al. (2010, p. 16), which helped the researcher to identify the methods and procedures applied by auditors at each phase of the audit. In interpreting the empirical data, this study followed the phases of auditing and tried to identify the critical phases of AFV. The analysis of the Challenges of AFV was categorized, and analyzed based on the ideas from Martin, et al. (2006, p. 287); Ryan (2008, p.5); IFAC (2010, ISA 540); Song et al.
(2010, p. 1382) and Pannese & DelFavero (2010, p. 161). When projecting the phases of AFV, the current study has taken into consideration the methods and procedures applied by auditors at the Big 4 Audit Firms. Thus, the proposed phases of AFV and the challenges of AFV were presented in the analysis section of the study.

4.6 Research Quality

According to Yin (2009, p.41), the quality of a business research is influenced by certain factors. The reliability, replication, and the validity are among the most important determinants.

4.6.1 Reliability

Bryman & Bell (2011, p. 40) states that the results of reliable research can be accepted easily. They added that the reliability of the data is in question when the degree of replication is lower. In this regard, the reliability of a research decreases when the researcher uses more of a secondary data. This study kept the reliability of the research with two main reasons. For this reason, this study used direct interview techniques that produce the data from first hand. Moreover, the respondents in this study are going to receive the copy of this study. Thus, this study has maintained the reliability of the data used for analysis.

4.6.2 Replication

Replication is considered as criteria to evaluate multiple cases. Replication can either be literal or theoretical (Yin, 2009, p.54). Literal replication predicts the probability of producing the same result from the findings of others. On the other hand, theoretical replication predicts different results. The value of replication in a research is high when the researcher applied quantitative studies than qualitative studies (Bryman & Bell (2011, p. 61). The authors added that during replication, factors affecting the first research should be taken into consideration.

The literal and theoretical replications of the results of this research are attainable provided that the same design and approach are used. Bryman & Bell (2011, p. 170) recommend the application of “factorial analysis.” They state that factorial analysis is used to validate the quality of business, and to reduce the number of variables with which the researcher needs to deal.” Thus, based on these definitions, the literal and theoretical replication of the current study is dependent on circumstances considered during the replication.

However, there are possible indicators that the replication of this study is maintainable due to the following reasons. First, the questionnaires related to the challenges of AFV measures (questions: reliability, leadership, management bias and verification and competence) were adopted from previous studies that synthesize the challenges of AFV, for instance, Kumarasiri, J. (2010), and Martin et al (2006, p. 285). Second, the uniformity of the auditing and assurance policies proposed by IFRS facilitates the possibility of literal replication. Third, the Big 4 Audit Firms work in similar settings with standard audit and IT layout. This allows the audit firms to change their strategy.
of auditing FV to be flexible. Fourth, the essence of following a uniform accounting standard still directs similar studies to come up with the same result. Therefore, due to the above reasons the chances of a theoretical replication or getting a different result is minimal.

4.6.3 Validity

The second crucial element that affects the quality of a business research is the validity in the data (Bryman & Bell, 2011, p. 42-43). They divided the validity of a research into three. These are the construct validity, internal validity and the external validity of the data.

Constructive Validity

To maintain the trustworthiness of a case study, the construct validity of a business research should be maintained (Yin, 2009, p.41). The author argues that construct validity during a case study arises when the researcher fails to develop appropriate measures. To decrease the problem of construct validity, Yin (2009, p.50) suggests the use of triangulation sources of data collection. Additionally, this study follows a working model developed from synthesis of academic articles that measure the methods and approaches of AFV in two levels. First, details of the phases of auditing were analyzed. Second, the challenges of auditing fair values based on ISA 540 regulations were also analyzed. Furthermore, the current study applied a separate questionnaire to identify the challenges of AFV that aids the qualitative analysis.

Internal Validity

According to Bryman & Bell(2011, p.43& 395), the internal validity to the research shows the relationship between the validity of the data collected, and factors considered in the empirical analysis. In this regard, questionnaires and sources of the literature review are considered. Accordingly, this study has adopted questionnaires from previous studies to increase the validity of the research. Moreover, the theoretical frameworks are from reliable journals, International Standards on Auditing, and well known publishers. Furthermore, to increase the validity of the literature used in this study, a separate chapter is used to summarize the pronouncements related to ISA 540. In addition, using the inductive approach with pure qualitative study, the study maintained the internal validity of this research. Hence, the conclusion is provided after complementing data from the Big 4 Audit Firms. Thus, the idea of Saunders et al (2009, p.372) that states a valid research maintains the correlation between concepts and observation is maintained.

External Validity

External validity is related to the generalization from the research findings within a specific research context (Bryman and Bell 2011, p. 43). However, because of the specific nature of the auditing profession, and the complexities of measuring fair values, it is very difficult to generalize the ideas of this study. However, following a thorough investigation of concepts from the Big 4 Audit Firms that are operating all
over the world and following the pronouncements of IFRS and ISA 540, the external validities of the results from this study are generalizable.

### 4.7 Subjects of Discussion

Following a summary of the interview process, the subject matters under investigation are summarized in Table 4.2.

**Table 4-3: Summary for Subjects of Discussions**

<table>
<thead>
<tr>
<th>Subjects of discussion</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefing the topic, problem statement and methodology</td>
<td>Briefing Purpose and outcome of the study</td>
</tr>
<tr>
<td>Understanding the phases of auditing fair value</td>
<td>RQ1</td>
</tr>
<tr>
<td>Understanding the application of ISA 540</td>
<td>RQ1&amp;RQ2</td>
</tr>
<tr>
<td>Understanding the challenges of auditing fair value with</td>
<td>RQ2&amp;RQ3</td>
</tr>
<tr>
<td>FVM and disclosures.</td>
<td>RQ1,RQ2&amp;RQ3</td>
</tr>
</tbody>
</table>


5 Empirical Investigation

This chapter, following the working model developed in the frame of reference chapter adequately describes the raw data collected from respondents. In this chapter, a discussion was maintained on the data collected according to meet the requirements of the research questions defined in the introduction chapter.

5.1 Background of Case firms

According to Bloom and Schrim (2012), the Big 4 Audit Firms offer the highest attainable audit services due to their technical as well as professional capabilities. These Big 4 Audit Firms comprised “more than 78% of all U.S. public companies, representing 99% of public company sales.” Choosing the Big 4 Audit Firms does not only help to answer targeted research questions, but also increases the reliability and validity of this study. Furthermore, it also increases the reliability and validity of the data used in the research. Each of the Big 4 Audit Firms works according to the laws and regulations of the country in which they operate. The summary of the Big 4 Audit Firms is provided below. Information is summarized based on the data available on their website.

PwC

PwC has a total of 17170 staffs around the world. The total income of the company for the year ended June 30, 2012 was $31.5 billion. The company has been working for the last 150 years. The company became a public firm when “Price Waterhouse and Coopers & Lybrand merged to create PwC.” Currently, the company is working in collaboration with more than 20 sectors, including governmental and private sectors. The company is working in 158 counties around the world. PwC is working for the harmonization of accounting and auditing standards. The firm, PwC, has a separate research department that works on the compliance of IFRS (PwC, 2012). Accordingly, PwC is named as one of the Big 4 Audit Firms in the world. Thus, conducting a study at PwC provide the trustworthiness of to this research

KPMG

KPMG is supported by a total of 145,000 staffs around the world. The total income of the company for the year ended September 2011 was $22.7 billion. The company now has more than 8000 partners in 152 countries. The company like that of PwC works for the harmonization of accounting standards. The history of KPMG dates back to 1987, when the Peat Marwick International and Klynveld Main Goerdeler founded the firm. The firm works with many sectors and targeted to “develop a rich understanding of clients' businesses and the insight, skills, and resources required to address industry-specific issues and opportunities. Our history spans three centuries and features a number of significant mergers, most recently the combination of Peat Marwick International and Klynveld Main Goerdeler, and their individual member firms, into KPMG in 1987( KPMG, 2012).

Ernst &Young

41
The total income of the Ernst & Young for the year ended 30 June 2011 was $22.9 billion. The history of Ernst & Young dated back to 1849 though the company recently has a major merger when the Ernst & Whinney and Arthur Young & Co in 1989. Ernst & Young is currently supported by 167000 staffs in more than 140 countries around the world. Furthermore, Ernst & Young works for the harmonization of accounting and auditing standards. The company provides services related to Assurance, Tax, Transaction and Advisory (Ernst & Young, 2012).

**Deloitte**

The company is supported by more than “200,000 professionals in independent firms throughout the world collaborate to provide audit, consulting, financial advisory, risk management, and tax services to selected clients.” The total income of Deloitte for fiscal year 2012 was $31.3 billion Deloitte currently works in more than 150 countries. The history of the company is dated back to 1845 when William Welch Deloitte opened his first office in UK. Deloitte Works in collaboration with both public and private sectors. Furthermore, Deloitte is working for the harmonization of accounting and auditing standards (Deloitte, 2012).

As it is explained in the earlier chapters, auditors faced significant problems linked to understanding the client, management biases, disclosure procedures, and reliable market information (Griffin, 2010 & Martin et al., 2006). Addressing these challenges is easier by following clear and systematic models as designed in this paper, which is the stepwise comprehensive analysis of the practical audit procedures of the Big 4 Audit Firms (Deloitte, PwC, Ernst & Young, and KPMG).

To assure the aim of this chapter is evident, and to create more comfort to the readers of this work, the current study provided background information about the working models in the frame of reference chapter. For simplicity reasons, the phases of auditing, and challenges of auditing fair values are presented in a separate section. Furthermore, to avoid confusion in this study, the current study has followed patterns that are explained in the frame of reference chapter. The analysis chapter has two sections. The first section deals about defining the phases of auditing, and the next section presents the results of the challenges of auditing fair value. Furthermore, to contented and customized the reader thorough out the presentation, important charts and figures are presented, which also are crucial for the analysis chapter of this study.

**A. Defining Phases of Auditing**

This section investigates and presents the auditing phases one-step to another. Auditors who are involved in this study have been working for more than five years. They are also publicly certified. The purpose of this section is to empirically investigate first if the methods, approaches and procedures used by the Big 4 Audit Firms are consistent, and the phases of auditing are comprehensible. Second, the current study targeted to present the audit procedures and challenges intertwined with each audit phase pertained to FVMs and disclosures.
5.2 Understanding the Business Environment of the Client

To assess the importance of understanding the general business environment of the business, the semi-structured questionnaires were used. The discussion covered points that are relevant to investigate the impact of failure to understand the business environment of the client. The concept of understanding the business is not completely new, but is not yet well developed from practical point of view. Therefore, certain factors had to be identified and analyzed during the interview process. Factors took in to consideration includes the competence and responsibility of managers as well as risk assessment procedures. These factors are considered into consideration to find out positive or negative evidence to previous studies (Johnstone, 2000; Hermaj, 2002 and Johnstone & Bedard, 2003).

In addition to the above points, respondents also described that due to the risks confined to auditing fair value, the auditor should begin by analyzing the firm’s overall business environment. Further, the study confirmed that understanding the background of the business is a vital step for auditors to know which method to use and how to organize the general audit. In addition to this, Auditor-X from PwC, and auditor-Z from KPMG viewed the client understanding procedure from three distinct steps. There are the client identification process, understanding the legality of the firm, and audit agreement. These steps are considered as crucial steps to understand the general business environment of the client. Respondents also pointed out these steps allowed auditors to execute further decisions. Audit decisions that auditors felt are relevant to proceed with the client.

5.2.1 Client Identification Process

Q: Is there any risk mapping procedures the auditor is using to understand the client environment?

The remarkable result that emerged from respondents was that respondents gave an emphasis to the client identification procedure during a FV audit. Respondents perceived that the client identification process started by examining the certificate of incorporation of the client. Second, respondents felt that the emphasis should be given to the prior audit engagement history of the client. The respondents from Deloitte, and KPMG emphasized the importance of investigating the client’s criminal or abnormal audit engagements. Moreover, this step was perceived by respondents as a key step to avoid risk from the inception. In this regard, when respondents stated that failure to inspect the client’s criminal records and abnormal engagements have had an adverse effect on subsequent audit procedures; they were asked to provide details. With the help of semi-structured questionnaires, they further commented that the client identification process follows specific procedures. The explanation presented by Ernst & Young was brief and found constructive.

Joakim Åström, a chartered auditor in Ernst & Young explained the importance of investigating a client in terms of international accounting policies, methods and contexts. This respondent also explained that the client identification incorporated certain procedures. Procedures include examining the objectives of the individual firm,
examining the intent of managers, cross-checking the firm’s letters of incorporation, including the correct address and location were described as crucial steps. The respondent also described the importance of determining the exact prices of assets, third party relationships and shareholders. Investigation of client also covered an examination of shareholders and external parties, including the stakeholders. To sum up, the client identification phase is based on evidence collected from the firm and external stakeholders. The Figure 5.1 summarizes the steps in the client identification process justified from respondents. This Figure is sketched in coordination with respondents.

Figure 5-1: Client Identification Practice at Ernst and Young, PwC and Deloitte

5.2.2 Understanding the Legality of the Firm

Understanding the legality of the firm were raised in a discussion from the researcher. The aim of this question was to search for conformity or deviations from previous studies that described the relevance of the legality of the firm. When respondents admitted the importance of understanding the legality of the firm to understand the general business environment of a client, they were questioned to provide detailed information pertaining to the methods, and procedures that auditors applied to conduct the audit.

Accordingly, respondents described that understanding the legality of the firm incorporated two sub procedures. These sub audit procedures are engagement meetings, and discuss with the audit committee regarding un-usual activities carried out by the firm. The discussion with respondents was interesting and further question was forwarded to respondents. Why was it important to consider these two sub procedures? The respondents elaborated two reasons. First, they considered that engagement meeting, and discussion with the audit committee helped auditors to trace illegal commercial activities, such as, money laundering or terrorist activities. Second, it helped auditors to figure out if a normal audit procedure is applicable or not. They described the positive correlation between audit engagements and commercial activities of the firm. To sum up, the results revealed that extra-ordinary trading activities are not covered up with normal audit engagements.

The purpose of this paper has directed the discussion for the question what models the auditor applied to understand the firm while auditing fair values? The following models
are used by Ernst &Young, and PwC to comprehend the general business environment of the client. The results demonstrated that both audit firms use different auditing model and approach to understand the client. The explanation of models continues as follows:

Table 5.2 presents the risk assessment and general audit procedures, and approaches used by Ernst & Young. The Table contains the procedure of understanding the overall business environment as its second step. According to Joakim Åström, at the service requirement and team formation stage, the audit firm valued right professionals who represented in the engagement meetings with the client. The general risk assessment procedure initiates with the preparation of the independent auditors who fulfilled the requirements of the audit engagement. Furthermore, according to Joakim Åström, auditors are expected to know IT-related facts to trace fair value measurements and disclosures. The respondent reasoned out the importance of IT as a far-reaching mechanism to traced balances and suspicious items posted in accounting software’s. Conclusively, respondents from Ernst & Young offered significant consideration for auditors understanding of IT and related facts.

<table>
<thead>
<tr>
<th>Service Requirement and Team formation</th>
<th>Understand the Business &amp; Consider Client Acceptance/Continuance Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Understand IT-related Facts</td>
</tr>
<tr>
<td></td>
<td>Engagement Team Discussion</td>
</tr>
<tr>
<td></td>
<td>Identification of Significant Accounts</td>
</tr>
<tr>
<td></td>
<td>Issue Report</td>
</tr>
</tbody>
</table>

Figure 5-2: Risk Assessment and General Business Audit Procedures at Ernst & Young

The discussion with respondents was extended to discover a further method applied by PwC. Figure 5.3 presented below depicts the characteristics of the audit mapping at PwC. In contrast to the approach used by Ernst & Young, PwC used more complicated mapping model. The risk mapping model as depicted in Figure 5.3 shows that each quadrant denominates different characteristics of the client. The result under each quadrant is critical determinant when it comes to accepting or rejecting a new client. In doing so, the horizontal axis represents the likelihood of the risk to occur, and the vertical axis represents the impact of the risk. If the probability is positive or the potential impact is high, it needs thorough investigation before accepting the client. Thus, the auditor forwards the issue to higher professionals in his team (Personal Com., Angar Torscha, PwC, 2011).

Further questions were raised to understand to what extent risk mapping methods were applicable to mapping highly uncertain issues, including FVA (Fair Value Auditing). Angar Torscha replied to me that this mapping domain is used to understand the general business environment of the client so that a preliminary decision is executed. Nevertheless, if the auditor found possible likelihood and high impact celled customers, clients are represented with red cell because they are highly risk intertwined clients.
According to PwC the correlation is positive. If the auditor found a red dotted customer, the auditor should consider extra audit engagements. Engagements that could direct the auditor to focus on issues like the effect of liquidity and management estimations to FV, stock options, all intangibles apart from goodwill and financial securities or those accounts which the auditor thinks are suspicious. The discussion with Angar Torscha was extended to see the relationship between audit engagements and third party relationships. The results subsequently showed that respondents at PwC are curious about third party estimations for assets and liabilities when an active market is unavailable. Thus, PwC rejected the clients if no action has been applied to correct misstatements and un-corrected activities were regarded as indicative of risky actions. However, it is apparent from this Table that clients that fall under the yellow cell are considered for audit only if the auditor thought that his or her expertise resolved issues with the client (personal communications, Angar Torscha, and PwC on April. 2011).

![Figure 5-3: Risk Mapping Process at PwC](image)

### 5.2.3 Audit Clearance

Audit clearance also received a significant attention from respondents. Interestingly, the overall response to this question was positive. Respondents substantiated their argument reasoning that an audit clearance gave them a chance to look at, conflicts, and criminal records reported by previous auditors. According to Joakim Åström (2011), at this stage, emphasis is offered for prior agency conflicts that happened between managers and stakeholders. The respondent added that at this stage, the auditor could thoroughly consider possible conflicts of interests, and litigations happened on earlier audit engagements. Furthermore, the auditor is expected to receive a substantial evidence to verify whether the client has been involved in uncommon activities or not. If by any chance the client was involved in irregular activities, the auditor should get evidence on how it was resolved. An audit clearance is needed when clients are
accepted for the first time. In this regard, a question was raised for how long companies can be clients for the same audit firm. The respondents claimed that audit firms can audit clients without any limited period. This infers that audit rotation is not mandatory.

5.3 The Engagement

Q: What are the methods and applicable procedures that the auditor involves in segregation of duties while creating an engagement team, auditing internal control and planning the audit?

One topic on which there was broad agreement among the respondents was the engagement phase of auditing fair values. The purpose of the thesis was still valid to this discussion. That is the search for the procedures, methods and approaches applied by the Big 4 Audit Firms continued. In this regard, respondents divided the auditing process into major steps. These are functions of engagement teams and creators of the assigning a team.

5.3.1 Functions of an Engagement Team

Figure 5.4 presented below display the approach used by Ernst & Young. The approach used by Ernst & Young includes understanding the internal control of the client as a first step. Secondly, the auditor is expected to validate the possible risk and fraud that might occur if a client is accepted. Finally, an engagement team discussion is maintained. In addition, respondents suggested that the engagement team must ensure that the companies hold an agreement with the right client.

![Figure 5-4: Functions of the Engagement Team at Ernst & Young](image)

5.3.2 Criteria for Engagement Team Formation

Table 5.1 presents the criteria to organize an engagement team. The aim of the discussion during the interview process was targeted to answer questions related to criteria’s for selecting an engagement team. Having the research questions on hand, the semi-structured questions enabled the researchers to further question how the engagement team could assess risks and frauds confined to audit of fair values. The answer for these questions is summarized in Table 5.1. Moreover, the Table also contains summaries of the main points that the team should consider while auditing fair value at the entity level. Moreover, facts relevant to complement the audit evidence are
presented. Points are summarized from Johan and Joakim from Ernst and Young, Andreas Rinzen at Deloitte, and Auditor- Z at Copenhagen KPMG offices.

**Table 5-1: Criteria for an Engagement Team Formation and Focus activities (Directions) for Identifying Risks and Determining Responses by Independent Auditors**

<table>
<thead>
<tr>
<th>A. The Criteria for selecting an Engagement team</th>
<th>B. Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence of the team</td>
<td>Extra-ordinary activities</td>
</tr>
<tr>
<td>Experience and technical knowledge of the team</td>
<td>Nature of the business</td>
</tr>
<tr>
<td>Professionalism :level of knowledge and education to accounting standards</td>
<td>Third party relations related to the treatment and evaluation of assets</td>
</tr>
<tr>
<td>Previous exposure to ISA 540 and other IFRS related audit procedures</td>
<td>Professionally attested clearance and disclosures</td>
</tr>
<tr>
<td>Knowledge of a recent market reality and valuation techniques</td>
<td>Reactions and preparedness for unexpected problems</td>
</tr>
<tr>
<td>Independent of the team</td>
<td>Deviations from planned objectives of the audit</td>
</tr>
</tbody>
</table>

It can be seen from the data in the Table 5.1 that the engagement team required supplementary information for planning the audit (Personal Comm., Angar Torscha, 2011). This supplementary information is guiding auditors on what areas to focus on and it is called ‘Direction’ Direction, according to Angar Torscha, is a complete and transparent procedure that the engagement team is required to follow while auditing. Table 5.1 summarizes guidelines that the audit team should focus on during FV audit. However, the respondent described that an engagement partner who considered management and all responsible parties for the audit could led the engagement meeting.

**5.4 Planning the Audit**

**Q: With respect to management estimates, the auditor should plan to detect errors or irregularities that would have an effect on the financial statements. Could you please mention what audit plans do auditors prepared in auditing FVMs**

To come up with more ideas, and create a strong empirical investigation, the discussion also covered many questions with regard to the planning phase of the audit. The planning process, as presented in the frame of reference chapter is perceived as a major step in understanding the business, internal control procedures, and economic considerations of the client. The semi-structured questionnaire covered questions related to the methods and procedures applied by auditors at the planning phase of the audit. Almost all respondents agreed on the idea that the planning phase is one of the key phases of auditing for a fair value audit. However, as the aim of the analysis was complementing data rather than comparing approaches used by the audit firms, the points relevant to audit FV are summarized below.
At this instance a discussion was directed to understand the importance of separate planning procedure than the normal audit just for the sake of fair value audit. Almost all respondents agreed that a separate audit procedure is not necessary for fair value audit. Nevertheless, one of the respondents, Joakim Åström, felt comfortable saying planning an audit need strategic considerations. These considerations helped auditors to audit risk and related accounts. Further discussions at the planning procedures with auditors-X&Y from PwC, Andreas Rinzen from Deloitte, and Joakim Åström from Ernst &Young revealed that the planning process at this stage could be seen from two perspectives. First, planning based on the engagement team point of view. Second, planning based on the general audit point of view. Planning the audit at the engagement team level carried out investigation of risky activities, materiality issues, assurance and disclosures. Turning down to the applicable audit methods and procedures at the general audit point of view, respondents assured that the auditor should consider the following general audit strategies.

- The nature of the firm’s strategy. E.g., a particular focus is supplied for real estate investment, or financial instruments.
- Related-party transactions, e.g., Focus should be provided if an external party evaluated the value of the assets.
- Audit evidence and related disclosures and nature of investigation confined to audit of fair values.
- Use of evaluation methods and their application with regards to assessment of material misstatements specific to audit of fair values.
- Risk assessment procedures.

In addition to the points described so far, further discussion was made with Angar Torscha from PwC. This respondent explained detail considerations are provided to the risk assessment procedures at the general audit planning. Accordingly, planning for the risk assessment procedures at PwC incorporates three levels: “Strategic, Operational, and Governance levels of planning.” Based on this respondent, strategic planning incorporates ideas that improved the growth and return of clients. Thus, the level of risk is approached by the strength of the internal control system, and based on how effective the firm applied the enterprise risk management or ERM. The respondent added that attributes of strategic level of planning are oriented towards forecasting, capital allocation, and budgeting. The second level of planning is operational level risk planning. At this level, the auditor is motivated to investigate the profit and loss statements. In that sense, attributes are oriented towards efforts done to “lower costs of the firm or reduce the level risk of overall profit.” The last level of audit planning is planning at the governance level, which incorporates CEO and Board members. Risks include management verification, and leadership (Angar Torscha, Pers.com, and Class Lecture, April, 2011).

### 5.5 Internal Control

Q: What are the main challenges confined to internal auditing procedures and tests of control?
All respondents adhered that the correlation between a quality report and a strong internal control mechanism is positive. The question of understanding the importance of separate audit procedure of this phase was raised in a discussion. The answer was no. Almost all adhered that a separate audit procedure for the sake of a fair value audit was not necessary. The search for answers to the targeted research questions of the study has continued. To allow the empirical data presentation more appealing, the ISA 315 perspectives of internal control are selected. These components described by ISA 315 are: “risk assessment perspectives, tests of control, control environment, and the role of external audit in monitoring of control activities.” However, the role of IT is not covered in this paper due to its departure from the targeted research question. The control environment is covered in the first phase of the audit: understanding the general business environment of the client. Thus, the empirical data is presented based on the components of risk assessment procedure and tests of control.

5.5.1 Risk Assessment Procedure

Q: What are the analytical procedures the auditor is applying while reacting uncertainties, including FV?

Table 5-2: Risk Assessment Procedure at Ernst & Young

<table>
<thead>
<tr>
<th>Internal Control</th>
<th>Rely on the controls</th>
<th>Not rely on the controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>Minimal risk</td>
<td>Moderate risk</td>
</tr>
<tr>
<td>Higher</td>
<td>Low risk</td>
<td>High risk</td>
</tr>
</tbody>
</table>

Respondents from Ernst & Young replied that the firm relied on the internal control of the client when the strength internal control procedure is lower, and the risk is minimal. Similarly, when the degree of internal control procedure is higher, and the risk inherent to the internal control procedure is lower, then, a stronger reliance on internal control is provided. The risk assessment procedure at PwC is an entirely different strategy from that of Ernst &Young. Risk assessment at PwC is an extension of the risk mapping process of the client used to understand the general business of the client.

5.5.2 Tests of Controls

A test of control incorporates identifying the major substantive and analytical control (Knechel, 2000). When the respondents were asked about tests of control, the answers provided were similar. The research question how the estimation of fair value could be done in those audit firms was incredibly important in getting more ideas regarding tests of controls. Nevertheless, as the Big 4 Audit Firms have a consult and seek strategies and being a competition, respondents were unwilling to explain it in detail. On the other hand, all respondents replied that they have valuation specialists who checked the valuations that have been done by managers. Furthermore, the role of the valuation experts to attested the underlying techniques, third party relations, legality of estimates,
valuation assumptions, relevant disclosures, and materiality issues. During the interview with auditor- Z at Copenhagen KPMG, the auditor described the methods used for valuation of the fair values of the asset. Auditor -Z described that there was no difference whether companies used the income or the purchase method of asset valuation except for intangible assets. He added that the group of intangible assets did not consist of audit for goodwill. According to this auditor, what matters for the auditor is assuring the reliability of the data, the evidence of the data, and reasonableness of management estimates, disclosures, and legality of the firm. The respondent also elaborated that cash flows, and cut off statements play a pivotal role in mitigating the risks related to fair value of intangibles. This is because of failure in the purchase method that inter-mixes prior and recent acquisitions. The auditor further elaborated that inspecting the completeness and existence of cash flows is also relevant for assurance of the timing, appropriateness of the posted figures in the ledger. The following groups of assets and substantive procedures are few examples of how the audit firms are applying during FV audits.

These substantive and analytical procedures presented in Table 5-3 are summarized using the thematic framework mechanism described in the methodology section of this study. Thus, the Table is organized from the data collected from all respondents, not alone from one specific respondent.

5.5.3 Role of External Audit in Monitoring of Control Activities

Q: What affects the auditors’ independence in providing an expression of audit opinion, including FV?

According to auditor- X and Joakim Åström, the following points are considered certain procedures where the auditor is expected to focus on while auditing fair value. At this instance, a further question was raised why it is necessary to consider such audit procedures. The respondents reasoned out that the procedures are considered relevant due to the uncertainties and risk of management estimates confined to the audit.

- The auditor should assure that the general accounting system and all relevant information required to estimate a fair value of assets and liabilities are evidenced.
- The auditor should guarantee that the client identifies risks confined to fair values. This helped auditors to identify the intent of the management estimates.
- The auditor should use samples and confirmed the relevance of transactions. Furthermore, the auditor is expected to- recheck point estimates made by managers in determining the value of fair values of assets or liabilities, for instance, provisions and convertible bonds (if any).
- The auditor should assure that the client applied relevant governance policies, and internal control mechanisms while implementing proper accounting systems in the firm.
5.6 Complete, Evaluate and Issue the Audit Report

During data collection, respondents almost assured that these steps are not separated from the audit procedure. However, few additional points raised by Joakim Åström were remarkable. According to this respondent, the Ernst & Young have own style of audit reporting. The reporting is entirely performed by audit software’s. The respondent added that the Software’s prepared including auditors’ reports, financial statements, and necessary notes to the financial statements reconciling both Swedish domestic GAAP, and IFRS requirements. The audit report incorporated a separate paragraph of fair value measurements and accompanying calculations.

Table 5-3: Examples of Substantive and Analytical Procedures Applied for Certain Groups of Assets and Liabilities

Q: Which audit evidence is assumed with the least degree degrees of persuasiveness? What are the auditors’ analytical procedures while performing an audit of fair value?

<table>
<thead>
<tr>
<th>Asset or Liability type</th>
<th>Substantive Procedures</th>
<th>Documentation and analytical procedures</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Instruments</strong></td>
<td>Take Sample figures of accounts from ledgers and recalculate balances. e.g., revenue and tax, inspect existence and completeness of transaction</td>
<td>Check sales and purchase general Ledgers</td>
<td>Report all illegal or unauthorized transactions</td>
</tr>
<tr>
<td></td>
<td>Review annual audit committee revise and financial reports</td>
<td>Check security agreements</td>
<td>Emphasize on account receivable and payables due within short period</td>
</tr>
<tr>
<td><strong>Long Term Assets</strong></td>
<td>Confirm suspicious figures with external parties</td>
<td>Inspect transactions for basis of valuations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>check security exchange rates, cash flows and cut offs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take sample and recalculate figures</td>
<td>Terms of agreements</td>
<td>Report suspicious related party transactions</td>
</tr>
<tr>
<td></td>
<td>Inspect lease documents if any</td>
<td>Third party transactions</td>
<td></td>
</tr>
</tbody>
</table>
### 5.7 Roles of Auditor, Audit Partner and Valuation Experts in FVA

In answering targeted questions about the necessity of stressing on audit procedures, respondents raised discussions pertained to the roles of auditors, audit partners and valuation experts. In this regard, according to an auditor-X, the auditor is responsible for concluding the evaluations and estimations performed by the management. Furthermore, the respondents added that the role of auditors is complicated when the client has done significant impairment tests. In addition, Auditor-X at PwC asserted that auditors at PwC have own specialists who decided material issues based on the valuation results.

Similar to the idea of auditor-X, auditor Z from KPMG explained that the auditor at this stage expected to render a proper professionalism in order to provide his audit opinion pertained to valuations. Moreover, respondent Z considered the role of the audit partner is to provide assurance related to the history and timing of estimates, which are interrelated with understanding the general business environment of business.

Finally, further questioned was forwarded to auditor-Z. The question was on what basis the valuation experts evaluated the value of fair values of assets and liabilities. The respondent replied that most valuation experts in Sweden did perform their forecasts based on the client forecasts or some other similar buyers. However, Valuation experts for sure are doing their valuations based on market participants.

### B. Challenges of Auditing Fair Value
In order to understand what the challenges of the auditing fair value are, the study has taken the questionnaires to see the degree of agreement with previous studies related to the challenges of AFV. The structure of the opinion survey was divided into four sections. These are competence, leadership, management bias and verifications, and reliability.

What are the main challenges confined to internal auditing procedures and tests of control?

### 5.8 Reliability

According to the data from the respondents, lack of an active market for assets and liabilities is a key challenge for audit of fair value. This result was not surprising since it was synthesized by numerous previous studies. However, it was uncommon to hear from Joakim Åström the problem is more complex for publicly traded companies than SMEs as Swedish SMEs are not applying IFRS. In addition to this, auditor Z described that there exist different values for the same asset in the market. This difference in value of assets created a conflict of interest between financial experts and audit firms over balance sheet figures. Further question was forwarded for auditors how they compromised such differences in the balance sheet figure. Nevertheless, respondents assured that any material figure is not negotiable. Auditors also argue that they prefer the Fair Value method over the Historical Cost method. They state that FV is a reliable method since it provides a better assurance. It is always best to audit with recent invoices and collect a confirmation from third parties than to audit an invoice which the company files that are (say) six or seven months old. They further argued that credible resources are regularly a means to produce quality financial statement. Furthermore, they argue that the complexity of the audit process increases since the FV method incorporates difficult procedures, for instance, ascertaining the price of the asset in the market. They further added that the mathematical application of the fair value model makes the audit procedure more complex. The complexity of a fair value model requires more experienced and competent auditors.

Angar Torscha from PwC also added that the foremost challenge of fair value was when clients were asked to mark their assets based on the market where the value of assets in the market was remarkably low. Furthermore, the respondent described that the investors or shareholders always requested the evidence used as a basis to estimate values of assets and liabilities. Further, the respondents added that the auditors were also required to provide sufficient evidence on issues of what models are used for valuation. In the respondent added that the existence a challenge for the audit partner to compromise things based on the management assumptions. Turning now to evidence collected from respondents from Ernst &Young, PwC, Deloitte and KPMG adhered to the treatment of differences based on ISA 540 regulations. They all added that they were restricted to the regulations of ISA 540 in their engagements.

### 5.9 Management Bias and Verifications

According to the data collected from respondents, reliable estimation was of course the responsibilities of the managers. The auditors extended the responsibilities of managers
in appointing authorized valuation experts. Furthermore, all respondents stressed that they did not find any valuation that is performed based on relationship. At this point, further question was forwarded to them what audit procedure the auditor applied to attest the validity of management estimates? The respondents described that the auditor should use analytical procedures to attest the completeness of transactions (see detail substantive procedures at Table 5.3). Moreover, respondents described that in Sweden most of the time the value of the asset estimated by managers are similar to the value of the estimates by valuation experts. However, the respondents stated that the auditor noted any material issue in a separate paragraph as an annex to the financial statements in the audit report. Moreover, respondents stated that a single asset might have different prices in the market.

Finally, the reason why it is difficult to know the intention of managers is explained by an auditor-Z from KPMG. This respondent described two key reasons. First, the variation in price is due to the existence of different market values for a single set of asset or liability. Second, lack of active price in the market is considered as another challenge. These two reasons created a difficulty to know the intent and ability of managers. That is why auditor’s own judgment is needed (Personal com., auditor Z, KPMG, October, 2011).

Four separate questions were forwarded to respondents to see the factors that hamper the accuracy of management estimates. The first question was whether the management bias and verification problems arise due to the complexity of the fair value method or not. In this regard, respondents claimed that managers at the client firm face difficulties to understand the FV method. Thus, the complexity of the method is assumed as a challenge for a fair value estimate.

The second question was to see the degree of the measurement practice as a challenge compared to other challenges. In this regard, most of the respondents do not agree that the foremost challenge is the measurement practice of fair values. However, they admitted that measurement is one of the key challenges of AFV due to economic and marketing conditions. Even though the purpose is to identify the challenges in certain way, the author encountered a problem to identify the exact economic and marketing factors that affect the measurement.

The third question was forwarded to see whether the management estimates are challenging because of the mathematical models and managerial assumption. In this regard, almost all agreed the difficulty of the methods and managerial assumptions. At this point two things are clear from the second and third question: measurement practice is difficult because of the difficulty of understanding the methods and valuations techniques as well as estimating economic conditions.

Finally, the author forwarded a question to see whether FV measurements are the challenge due to the difficulty of calculating cash flows, discount rates and other necessary events (say future growth estimation). The respondents stated there is a possibility of inaccurate management estimates due to the difficulty of the factors listed in the question. Overall, the questions related to the reasons why management estimates
are susceptible might happen in any of the four possible situations described in the above four questions.

5.10 Competence

Following the statement by Mark Olson, the head of PCOAB, the respondents were asked if they agree to the idea that a fair value auditor needs a particular knowledge and familiarity to audit FV. This question is asked to affirm whether there is a consistency in the criteria to select an engagement team is true or not. However, there was a further explanation provided for respondents to see whether auditors at the Big 4 Audit Firms are familiar with the techniques used to ascertain the fair values of assets or not. Respondents differed considerably on this question. Most respondents were in agreement with the idea that auditors in regional level have no experience and exposure of auditing fair values. In fact, almost all respondents agreed with the idea that auditors are equipped with the required professional knowledge to conduct FVA. Auditor Z replied that KPMG is equipped with professionals whom the firm is practicing. Auditor Z also explained that KPMG was ranked the first firm in the world in 2011 in terms of high professionalism and access to knowledge (Person Com., auditor Z Copenhagen, 2011). The second question was forwarded to respondents to see whether there are training opportunities in the Big 4 Audit Firms or not. In this regard, respondents stated that the availability of ample opportunities but not specific to the audit of FV. Moreover, respondents added that auditors in Umeå have no audit exposure to fair value. Auditors from bigger cities are always available on demand to regional cities to audit issues related to FV. The respondents do completely agree that auditors in Umeå do not possess the required experience of audit of fair values. In addition, the respondents stated the complexity of the mathematical methods and valuation techniques used to measure FV.

5.11 Leadership

Four questions were forwarded for respondents to see whether the leadership style of managers of the client firm affects the quality of FV estimates or not. The first question was to see if managers at the client firm have the ability to address the challenges faced by auditors in AFV. The respondents were not totally clear about this question, and so it is difficult to provide a clear-cut inference. Next, a question was forwarded to respondents to see whether the managers’ style and leadership skills are among the most challenging tasks of auditing fair values. In this regard, most respondents agree that managers’ style and leadership skills are among the key challenges. It is because the fairness of FV estimates is dependent on the quality of the internal control at the client firm. Moreover, the respondents agree that the leadership style and role of a manager affect the work of the internal auditor. However, few argue that this kind of issues is not evident in Sweden. The final question was if there are opportunities for the auditors at the Big 4 Audit Firms to get sufficient training from managers on how to audit FV. Results show that auditors at audit firms do not get a special training and support just for the sake of AFV. The final question was related to the second question, but it asks if the leadership style and roles are among the most challenging reasons for a FVA. The results in this sense admitted that the degree was less than the reliability issue, but still a key challenge.
5.12 Summary

In this chapter, first the methods and procedures of auditing fair values are summarized; and, thereafter, relevant audit phases of auditing requirements in light of ISA 540, corporate governance requirements of the Cadbury Report (1992) and Sarbanes Oxley Act (2002) were explained. Following the phases of auditing, a brief study of the challenges of auditing fair values was conducted. These two vital points of studies, in fact, are the next points of discussions in empirical investigation section of this study.
6 Findings and Analysis

To address the proposed research questions of this paper, this chapter exhibits the empirical investigation in two parts. First, a detailed analysis of the phases of fair value auditing is presented. Second, a detailed analysis of the challenges of AFV is presented. The analysis is done in light of previously conducted research presented in the second and third chapters of this thesis. Points of agreements, disagreements and deviations from current academic research are presented based on their relevance to the research questions.

A. Phases of Auditing Fair Values

6.1 Understanding the General Business Environment of the Client

Previous studies explain that understanding the general business environment of the client is the first step of auditing (Eilifsen et al., 2010; Johnstone & Bedard, 2003, p. 1003-1025; Johnstone, 2000 and Dauber et al. 2009, p. 160). Moreover, Dauber et al. (2009, p. 160) emphasized on the importance of understanding the ‘intent and ability of management’ while auditing FV. One explanation of this study is that understanding the general business environment of the client reduced the intensity of an audit risk the audit firm comes across. The audit risks at this stage found to have an adverse effect on subsequent audit procedures. In this regard, this research finds the importance of analyzing international audit regulations, and domestic GAAP at this stage of the audit.

The findings explain the importance of understanding the general business environment of the client helps the auditors in two ways First it helps the auditor to know which method use. Second, it helps the auditor how to organize the general audit. The risk mapping domain shows the correlation between the risky client and client acceptance procedure. This research also support prior studies conducted by Johnstone & Bedard (2003) and Johnstone (2000) that found a positive correlation between the risk and client acceptance procedure. This study found consistency to this idea. Thus, the positive correlation is evident to practical perspectives. In addition, this stage incorporates three distinct phases. These are the client identification process, understanding the legality of the firm and audit clearance.

It is somewhat surprising that previous studies did not provide details pertained to the separation of understanding the business environment of the client, and client identification process. This research finds that the client identification process is a stage where the independent auditor identifies the general intent of the business. Furthermore, the findings of this study inferred that the audit process at this stage focuses on secondary data. For instance, at this stage, the prior audit history of the client is attested and verified. The possible explanations is previous studies have not addressed client identification from practical perspective. The main reason is that previous studies did not address the issues of AFV from practical perspectives. For instance, the importance of audit clearance received a considerable attention from respondents. Thus, it is not only questionnaires or interviews that helped auditors to
understand the client (Dauber et al. 2009, p. 160), but also the use of audit clearance, detailed investigation of the letters of incorporation, and identification of principal shareholders. Moreover, this research shows that the Big 4 Audit firms are emphasizing the importance of understanding the motive of the business. Accordingly, respondents emphasized on the following four important steps to identify the right client. These are:

- Examination of the certificate of incorporation;
- Identification of the client in terms of accounting policies, procedures and contexts;
- Examination of the business activities of the firm and;
- Identification of the principal shareholders.

Overall, the Big 4 Audit Firms are emphasizing on the importance of understanding the intent and ability of managers. This also touches analyzing the motives of shareholders. Understanding the client business helps not only to assure the legality of the firm, but also to identify management biases on FV estimates. The results confirmed that this phase has important ramifications in FVA.

### 6.2 Preliminary Engagement

Preceding research stated that understanding the general business environment of the client is not by itself sufficient to address issues of AFV (Eilifsen, 2010, p.81). First, the preliminary engagement procedures at the Big 4 Audit Firms are well explained than previous studies (Eilifsen, 2010). The engagement procedures covered in the entity level are partially similar to the audit procedures mentioned by Mellaieu (1992, p. 12). However, the result from this study identifies not only the functions of the engagement team, but also the criteria for selecting an engagement team.

There are two advantages of having the engagement team according to this study. These advantages are that the engagement team helps to design a working model that guides to identify the possible risk that might occur if a client is accepted. Second, the engagement team must ensure that the audit firm is in agreement with the right client. However, an engagement team discussion with a client incorporates assessment of the strength of the internal control at the entity level and identifying fraud risks.

Second, this study found interesting results with the criteria used to select an engagement team. The criteria to set up an engagement team for a fair value audit includes competence, experience, professionalism, and knowledge of ISA 540 applications. Thus, the results presented in Table 5.1 show that experienced auditors can audit and resolve the challenges of auditing FV easier than junior auditors. Moreover, the explanatory purpose of this research is to develop an understanding of auditors’ relationship with clients and maintain the quality of the audit. The rationale behind this is that the auditor must invest more time to understand the general business environment of the client, select the right engagement team, and construct clear audit directions.

Therefore, it is not easy to indicate the advantages of the engagement stage from the client perspective. However, the following two advantages are found to be crucial.
First, it helps auditors to design a model relevant to AFV. Second, it helps to address and resolve risky audit activities (see Figure 5-4), set up the right composition of audit team. It can thus be concluded that audit team members composition has been found relevant to conduct a proper audit of FV. Third, it helps auditors to assess risks confined to estimation of uncertainties. The argument here is that the experience the auditor, the lower the risk confined to estimation of uncertainties. Overall, the results presented in the empirical finding section answered the requirements of audit Engagement Terms, mentioned in paragraph A22-25 sections of ISA 210 Overall, the criteria for an engagement team is far from a forward process. The process of organizing an engagement team can be understood as critical stage of auditing.

6.3 Planning the Audit

One of the most important phases of auditing is planning the audit. This stage in this thesis addresses at least one research question. The results of the empirical findings are interpreted in the following paragraphs. Results from the empirical results showed that the planning processes significant for auditing fair values are issued specific to transaction level planning (Roy, 1986). Issues covered at a transaction level include the risk assessment procedure and details of the procedures to audit the internal control of the client. The definition of horizontal audit planning described by Roy (1986) is the type of planning that is used for auditing fair values by the Big 4 Audit Firms of this study. This study has some interesting results contrary to the approach used by Mellaieu (1992, p. 12).

The key findings in the planning process can be viewed from two stages. Planning at the engagement point of view, and planning at the general audit point of view. The planning process at the general audit view should address at least five important procedures. Firstly, the nature of the firm’s strategy should be investigated. Secondly, third party- transactions should be considered in the planning process. Thirdly, the auditor should plan a strategy to collect evidence. Fourth, valuation methods and approaches used for a fair value estimate should be investigated. And finally, the risk assessment procedure should be planned. The results are projected in Figure 6.1 provided below. Figure 6.1 emphases on the relevant audit considerations at the general audit view.

However, it is the authors’ view that the interconnection between each phase is cyclical which means that one stage supports the other stage. Results from respondents reveal the general audit procedure must be performed following these levels of planning. Thus, in contrast to prior studies in planning, the current study suggests a specific planning process for audit of fair values. Some of the issues emerging from the findings relate to the audit procedures and methods applied by auditors, which is the research purpose of this study.
Results from the empirical findings have also shown relevant issues to consider at the strategic level of planning. The result infers that auditors at this level should address audit issues linked to the board, top management executives and operational level employees while auditing fair values. A possible interpretation is that understanding the interrelationship between issues would help auditors to plan for extra-ordinary activities.

Another interesting issue discovered from the empirical investigation chapter is the stage where a plan for management bias and verification problems is done. The issue of management bias and verification confined to the management estimates could be addressed by planning the “operational level of improvement.” Moreover, the study finds out that the planning process at the “strategic level” includes preparation for auditing, understanding the intent and ability of management as well as the general behavior of top managers. Furthermore, the empirical results has shown that due to the orientation of “Board driven planning risk” in governance and control orientation, the issue of auditors’ independence is grouped under this category. Most of the findings in the planning level of the audit are summarized from class discussion and personal communication of Angar Torscha at USBE. Overall, planning the audit based on horizontal/vertical audit planning (Roy, 2008, p.21), or based on its auditors’ own risk mapping domain, the auditor must be able to provide quality financial statements that represent the true values of fair value estimates.
6.4 Internal Control Considerations

The internal control is considered as one of the pivotal phases in this analysis. This is because it addresses three of the research questions at a time. Internal control considerations, according to the empirical findings, are relevant for the auditor to assess the relationship between the risk assessment procedure and models applicable to auditing. Moreover, it helps to the appropriateness of point or range estimates, analyze the intent and ability of management estimates and evaluate the challenges confined to audit fair value.

As explained in the literature review and the purpose of addressing the research questions, findings at this stage answered the first and second research questions. To create an easier interpretation of the empirical results, this study presented the interpretation of the findings with three sections. These sections include risk assessment procedures, tests of control, and mitigation of management bias and frauds.

6.4.1 Risk Assessment Procedures

Audit risk is a central point of the audit process inside companies (Van Peursem, 1993, p.13). The approach adopted by the case firms shows a higher degree of emphasis on auditing risk both at the pre and post audit steps of auditing fair values. Although there is no need of having a separate model applied to risks confined to fair values, it shows that there exists a strong relationship between the degrees of risk assessment procedure and the quality of audit report. The stronger the risk assessment procedure, the higher is the quality of the audit. These results confirm consistency with Flint (1988); Mock & Washington (1998).

The first unanticipated finding was that the ERM (Enterprise Risk Management) is used by almost all the Big 4 Audit Firms. The ERM is found to be an essential tool for measuring complexity of uncertainties including risks confined to AFV. Second, the risk mapping procedures used by audit firms receive a considerable attention from respondents. Accordingly, the applications of risk mapping strategies of the firms have several implications. First, it suggests that clients can get a chance to prepare themselves for an external audit based on risk mapping criteria adopted by external auditors. Second, the auditor’s competence in IT increases the auditors’ competence to assess risks confined with fair values. Moreover, the respondents indicated that audit software is helpful to conduct the audit accurately and reduce the time of the auditor to audit risks. Third, clients can maintain the strength of their internal control based on the requirements of the external auditors’ requirement. Maintaining strong internal control in turn has created a chance for clients to understand the nature of the ‘uncertainties' which referred to the requirements of the ISA 540 (Par, A. 38). Overall, among the key findings in this study, the following four summarized how the Big 4 Audit Firms:

✓ They are working based on the ethical and professional requirements of ISA 205 (IFAC, 2010, p. 306.) that adheres on compliance of laws and regulations while performing an audit.
They are minimizing the conflict of interest that arises between managers, valuation experts and audit partners by working in compliance with the requirements of Cadbury Report (1992, p. 38), IFRS, and IAS 540.

They are working and issuing reports without pressure from clients, which supports the ideas of Gramling et al. (2004, p. 196).

They perform all substantive and analytical procedures relevant for checking the financial statement assurance, and confirmations from third parties to compare with control elements, which yield a good result of the quality of the financial statements (Kelly, 1997, p. 804).

6.4.2 Tests of Controls

In the process of client identification, the auditor should perform significant tests of control in terms of both analytical and substantive tests of control (Knechel, 2001, p.185). According to the data from the interviewees, illustrating the tests of control while auditing fair value involves a check of sample documents before the audit opinion. Moreover, this study found out that not all serial documents are attested. However, samples of documents are checked based on the result from audit samples. Taking a sample of documents saves auditor's time because there are high volumes of transactions posted into ledgers. Furthermore, it also helps to ensure the completeness of the transactions. Ensuring the completeness of transactions helps to achieve and minimize a control risk that leads to material misstatements (Gramling et al., 2010, p.194 & 197).

The auditor, while performing the tests of control, should get appropriate evidence for what he has audited (Pratt & Van Peursem, 1993, p.13 and ISA 500). The findings of this study are also consistent with prior studies, for instance, Humphrey et al. (2009, p.819) argue that the auditor should find a third party confirmation of his or her audit report. The current study shows that auditors are collecting evidence to assert an assurance. However, the findings can be interpreted that evidence is collected at least for three major advantages. First, it helps auditors to understand if the auditors at the client firm follow the general accounting system and evidence is filed. Second, it helps auditors to assert information about a single set of transaction. An assurance includes collecting evidence including the timing of the transaction that has already been recorded. The appropriateness of the transactions posted in the ledgers. Finally, it helps to organize audit reports for users. It can thus be suggested that evidence for substantial and analytical procedures should be documented and completed according to its relevance.

In addition to the above paragraphs, this research, with the help of a thematic framework identifies groups of substantive and analytical procedures applied while auditing fair values. Table 5.3 summarizes detail of the substantive and analytical procedures. To mention example, cash at the bank is confirmed with cut off statement and bank notes. Payables are checked with creditors. Receivables are confirmed with customers. Completing the substantive and analytical procedures helps the auditor to decide on his audit opinion or not. Thus, the study in this regard met the aim of contributing knowledge to the auditing profession by providing relevant substantive and analytical audit procedures applied in practice. Hence, the information provided in
the above few paragraph answered the first and second research questions of the current study.

6.4.3 Role of External Audit in Monitoring of Control Activities

In identifying factors affecting the work of the external auditor, respondents stated the work of the auditor is affected by the following four reasons. First, the work of the auditor depends on reliability of an accounting system found in the client firm. Second, it depends on the risk confined to the client firm. Third, it depends on the volume of transaction within the client firm. Fourth, it depends on the required level of assurance.

6.5 Complete, Evaluate and Issue Audit Report

The last three steps: completing the audit, evaluation, and issuing the audit report are less important to this paper. Therefore, the study does not lay special emphasis on these phases of the audit. It is primarily because they are requirements of every audit report, and no distinct procedure was expected. Secondly, since only a separate paragraph is offered for auditing fair value accounting and its treatment, the study does not provide attention to these stages of the audit procedures. The advantage of having computer software is found relevant to complete and prepare an audit report. Thus, it is deemed arguable that the competence in IT is advantageous for the auditor to complete his or her audit efficiently at this stage of the audit. The auditor makes sure that the statement is prepared based on both domestic GAAP and IFRS requirements before issuing an audit opinion.

6.6 Roles of Auditors, Audit Partner and Valuation Experts in FVA

The auditing process could not be performed by focusing only with single sets of accounts, but with accompanying and related accounts, which could be affected by the misstatement of a single account. This stage also helped to address the first research question of the current study is somewhat surprising to find a tri-partite conflict of interest between managers representing the client firm, the external auditor, and the valuation experts. Results proved that conflict arises when the value of the estimated asset by the valuation expert does not have the same value with the audit partner's valuations for certain groups of assets. The empirical findings of this study have also confirmed that the auditor is assumed as a conflict-resolution expert of any arising conflicts of interest.

This research finds the role of the audit partner to provide an assurance on general business environment of the client. Finally, the role of the valuation expert pertained to provide correct valuation estimates. Moreover, this study finds that in Sweden valuation experts perform their forecasts based on a client forecast. There is a strong challenge in determining the exact value of assets and liabilities due to lack of market information. Thus, the role of the auditor is to ascertain the correctness of management estimates.
6.7 Other audit considerations:

The study to some extent showed a deviation from the Cadbury Report (2002) that there is no requirement of auditor rotation for SME's in Sweden which leads to criticism in terms of audit fee, independence and audit quality. There are several interpretations of the results in this regard. It is the author’s view that the results also infer the possibility of a strong tie between the audit partner and client, which might affect the quality of the audit report. In fact, it is the author's view that long audit tenure leads to a knowledge spillover due to the high level of understanding the weak parts of the client. However, one could possibly argue that long relationships can also lead to lower emphasis on the work of internal auditors, and high dependency on the internal control mechanism. Moreover, such ties and dependence on the work of internal controls are contrary to the requirements of Cadbury Report (2002). A mandatory auditor’s regulation is not incongruous with Smiths (2003) point of disagreement to external auditors' work of consultancy service to their clients.

Conclusion to the Phases of Auditing

Conclusively, the auditor’s report contains paragraphs about the treatment of fair value accounting. In the light of data collected under the empirical chapter, this study projected key phases of auditing fair values. Figure 6-2 given below summarizes the key projected phases of AFV. The application of the working model developed in the frame of reference chapter was used to identify key phases of AFV. Moreover, the results in this study are also a starting point for future studies. Taking into account the current study, future studies, can easily formulate their research purpose, and research question. However, understanding the challenges auditing using the phases of auditing was not encouraging to identify identifying, categorize, and prioritize challenges of AFV.
B. Challenges of Auditing Fair Value

The challenges of auditing fair values are investigated using a separate questionnaire for the challenges and ISA 540 pronouncement. The following is a detailed analysis of the challenges of auditing fair values.

6.8 Reliability

Prior studies explain that the reliability of financial information is the most difficult challenge in a FVA (Martin, et al. 2006; Song et al. 2010, p. 1382; EC 2011, p. 11 and Pannese & DelFavero 2010, p. 161). The results of this study agree with prior findings claim that reliability of financial information is one of the key challenges of auditing FV. According to IFRS 13, one way of measuring the FV of assets or liabilities is by comparing its price to the price of similar assets or liabilities in an active market. However, measuring management estimates on the FV of assets is a serious challenge during a FVA (Martin et al. 2006 and IAASB, 2008, p. 13). In this regard, two questions were forwarded to respondents. The first question was whether it is difficult to ascertain the fair value of assets without an active market or not. The results confirm that ascertaining the fair value of assets without an active market is difficult.

The second question was whether the audit of fair value method is conducted in a more reliable way than a Historical Method (HC). The respondents stated that the FV model
provides most-recent evidence and confirmation from price of an asset traded in the market. They also added that since the evidence for auditing FV is from the current market, it is at once credible and thus increases the assurance level. It is therefore inferred from the respondents that fair value method is more reliable. This is consistent with Mirza et al. (2010) who stated that the FV is a credible method than HC because it reflects current market and economic conditions. Furthermore, respondents indicated that the audit of fair value conducted is following IFRS and ISA 540 regulations. Moreover, the study found that all the audit firms have not encountered any litigation problems. One indicator of audit quality is the number of lawsuits (Francis, 2004). A high-quality audit report is indicated by a low number of law suits. Thus, using lawsuits as a measure of the quality of the audit report, this study shows that audit reports in Sweden have a high-quality since the number of law-suits is low. Consequently, this means that the use of FV as an auditing tool is highly reliable. Hence, detailed studies to see a reliable method of AFV in Sweden is recommended.

Though FVA are deemed to be reliable based on the reasons stated above, the study also found that the complexity of the audit process increases since the FV method incorporates difficult procedures, for instance, ascertaining the price of the asset in the market. They further added that the mathematical application of the fair value model makes the audit procedure more complex. These results are consistent with the idea of Barth & Landsman (2010) and Song et al. (2010) who argue that the fair value method is complex to apply due to changes in economic conditions. It is recommended that the complexity of FVA is handled by more experienced and competent auditors.

6.9 Management Bias and Verification Problems

ISA 540 has considered management bias and verification problems as challenges of auditing fair value (IFAC, 2011). The respondents in this regard did not mention any specific management bias they have encountered while auditing their clients. Rather, the respondents provided a general comment that indicated management bias and verification problems exist and can be considered as being among the key challenges of AFV. The results in the study are consistent with Martin et al. (2006, p. 285) who argue that management bias and verification problems are one of the key challenges of AFV. The findings also support prior studies which claim that there exists a difficulty to understand managements’ intent and reason for holding certain groups of assets (Dauber et al., 2009).

It has been explained previously that management bias and verification problems have occurred due to the susceptibility of management estimates. To understand why management estimates are susceptible, few questions were forwarded to ascertain the reasons.

The first question investigates whether management bias and verification problems arise due to the complexity of measuring the fair value of an asset. Almost every respondent agreed with the first question, and the finding is consistent with prior studies, for instance, Martin et al. (2006, p.285) and IAASB (2008, p.12) state that measuring the FV of assets is challenging.
In this regard, the focus of the second question was to ascertain whether measurement practice is the foremost challenge when compared to other challenges. The study concluded that measurement practice though not being the foremost challenge; it is one of the key challenges due to market and economic conditions. These measurement practices are considered as challenges in terms of the mathematical models and managerial assumptions used to measure the FV of assets. The mathematical models and managerial assumptions are dealt with by the third question. The findings of the third question are consistent with those of previous studies which state that the mathematical methods and valuation techniques are difficult due to uncertainties in the market. For instance, Ryan (2008, p.1610) describes the difficulty of discounted cash flow method to measure the fair value of assets. In this regard it is recommended that the provision of a thorough understanding of mathematical valuation techniques to auditors can minimize management bias and verification problems. Also, providing training on how to trace assumptions made by managers can be a remedy.

The final question forwarded to respondents to see whether fair value measurement is difficult due calculations of cash flows, discount rates and future market growth estimations. The respondents stated there is a possibility of inaccurate management estimates due to the difficulty of the factors listed in the question. Therefore, these results show consistency with Christensen et al. (2012).

Remarkable results show that by applying different risk mapping modes (see Figure 5-2& 5-3), auditors at the Big 4 Firms were able to reduce the misstatements in financial reports and identify uncertainties in management estimates. Thus, an important insight from this study is that performing a reasonable adjustment in management estimates decreases the material misstatements in the financial statement.

6.10 Competence

Mark Olson (cited in Johnson, 2007) and Griffith et al. (2012, p. 1) argue that competence of auditors is one of the major challenges to AFV. The current study forwarded three questions to the respondents. The first question is inconsistent with results from prior studies. According to the results from the empirical investigation, most of the respondents do not agree with the idea that authorized auditors have no competence to AFV. Rather, it was stated that in Sweden experienced auditors working in audit firms have advanced knowledge of ISA 540 and related aspects. The second question pertained to auditor’s familiarity with techniques to ascertain measurements of fair value. The results of the second question do not support a prior study conducted by Griffith et al. (2012, p. 1) which states experienced auditors have just the same knowledge of AFV as inexperienced auditors. Moreover, the results from the phases of auditing indicate that audit firms have the required professionals. However, the remarkable results of the criteria for selecting the engagement team depend on the experience and familiarity to AFV. The findings also suggest that experienced auditors’ audit FV easier than fresh starters.

The third question was whether there are ample opportunities for auditors to perform FVA. The results show that auditors at the Big 4 Audit Firms have extensive training opportunities but not specific to audit FV. The combination of the findings with the
phases of auditing implies that junior auditors have the required knowledge of AFV, but they are not exposed to a practical audit of listed companies as there are only limited public companies in Umeå. To address this issue, the current study has conducted interviews from PwC in Stockholm, Deloitte in Umeå, and KPMG in Copenhagen. The study also found that auditors have enough exposure in the bigger cities than regional audit offices. Further studies are recommended to see what the reasons for the inconsistencies with prior studies are. Overall, the author does not consider competence as a major challenge to AFV.

6.11 Leadership

The focus of this study has also been towards management role and leadership style. The idea comes from the ISA 315. According to ISA 315 and Sarbanes-Oxley Act like S. 404, managers are responsible for the weaknesses and strengths of internal control. The first question reveals that respondents were not in total agreement as to whether managers at the audit firm are capable of addressing the challenges of auditing fair value. The result of the second question reveals that the leadership skill of managers at the client firm affects the auditing process and AFV as well.

Results show inconsistency with the requirement of the Sarbanes Oxley Act 404. The Act states that management is responsible for maintaining the strength of the internal control system. The findings suggest that auditors at the client firm are also equally responsible for the strength of internal control. Additionally, as long as management is responsible for management estimates, the style, role and leadership skills of the manager affect the accuracy of valuations and estimates. In this regard, it is recommended that the issue is considered from the client’s perspective. Evaluating the challenges related to the skill and leadership style of managers at the client firm can possibly provide a signal for audit firms, national regulatory agencies and stakeholders to see the fairness of management estimates. The third question was whether auditors obtain sufficient material to develop their knowledge and expertise in auditing fair value. The study reveals from respondents that management at the client firm level does not readily provide training for internal auditors. There are ample training opportunities at Big 4 Audit Firms. However, it is the author’s suggestion that audit firms operating in Umeå should create an exposure of FVA for auditors, even if there are a limited number of public companies in Umeå. Lastly, respondents were asked questions related to management estimates and the leadership style. The answers were consistent with Martin et al (2006) in confirming that management estimates are difficult to validate.

6.12 Summary

This chapter analyses the Measurement and Disclosure issues of auditing fair value based on the framework developed in the frame of reference chapters. The data under investigation is based on results from authorized public accountants at the Big 4 Audit Firms. The purpose of the thesis is to look at the methods and approaches used by auditors while auditing fair values from practical perspectives. Hence, at first, the chapter summarizes the results of the audit phases based on the requirements of ISA 540. Moreover the corporate governance requirements to internal control and Sarbanes Oxley Act considerations are presented. Second, a summary of the identified challenges
of auditing fair values were briefly presented. Both steps, allowed the thesis to address the research questions. Summaries of answers for each research question are presented in the next chapter. The overall results of chapter 6 show that due to the “susceptibility of management estimates”, the auditor should assure the reliability of confinement to the FV estimates including fraud ISA 540 (IFAC, 2010; Dauber et al., 2009). Assuring the reliability of management estimates incorporates checking of necessary assumptions related to the intent and nature of estimates and relevance of necessary disclosures. For instance, auditors while auditing debt securities should not classify them as „held to maturity” if the intention of keeping the debt for a definite period as financial security, it should not be classified as held to maturity.

Although auditors are required to use own point or range estimates to gain assurance over management estimates, results show that it is an easy process to come up with auditors estimate similar to management estimate. However, the competence of the Big 4 Audit Firms minimizes the challenge of AFV. In addition, in case of lack of quoted prices, there is still an option of assuring management estimates with estimates from a broker or third-party transactions. However, the issue here is if the auditor got his confirmation from broker dealers, he/she should work according to ISA 540. This study also confirms there is less exposure of auditors to ISA 540 Audit regulations at regional offices of the Big 4 Audit Firms.
7 Conclusion

This chapter conclusively presents the results of the findings in light of the research questions. All subsequent recommendations and future implications are briefly covered in the chapter. Results are synthesized and managerial implications are pinpointed.

This thesis analyzes the methods and procedures applied by auditors to audit fair values. Furthermore, the thesis has paid attention and identifies the challenges of auditing fair values from a practical perspective. The problems of getting reliable market information, auditors limited exposure to audit fair values, the role and leadership style of managers at the client firm are considerable challenges discovered in this study. The following few paragraphs summarize the main findings of the research questions.

7.1 Addressing Research Questions

RQ 1(1) What Models the Auditor Used to Come Up with the FVA?

Following the fundamental audit phases that begin with understanding the client and ends with the reporting phase, this thesis has tried to address working models that the auditor has applied while auditing FV. By studying the audit phases with additional strategic analysis of issues covered by the ISA 540 disclosures, the current study yields adequate summaries of audit models used by auditors while AFV. Using the data collected with the phases of auditing, the findings in this study suggest key audit procedures to conduct FV audit. The audit procedures identified in this study are not yet covered by IFAC (2010). Significant audit models covered in this thesis include strategic risk mapping models, and proposed phases of audit planning at the general audit point of view. Furthermore, the client awareness and internal control procedures of the audit phases have enlisted some of the models used for strategic risk mapping process. Moreover, investigating the phases of the audit reveals that the Big 4 Audit Firms use different models and strategies to audit FV. For instance, Ernst & Young and PwC use different models for risk assessment at different phases of the audit. Furthermore, Tables and Figures presented in the empirical investigation show distinct models the auditor uses to come up with FV audit. To sum up, this study identifies models that the auditor used at different phases of the audit to come up with a fair representation of financial information. To illustrate some of the models that this study identified, Figure 5.1 Client Identification process; Table 5-1 Criteria’s for selecting an engagement team; Table 5-2 Risk Assessment Procedures; Table 5-3 Substantive Procedures and Documentation are notable ones. Furthermore, in section B of the empirical investigations, the challenges of AFV are identified based on the inferences from previous studies.

RQ 1(2) Is It Relevant for the Auditor to Know How the Management Came Up with the Accounting Estimates?

The evidence from this study suggests that it is important for the auditor to know how the management came up with accounting estimates at least for two reasons. First, it helps auditors to evaluate the validity of internal control mechanism. Second; it helps
auditors to execute decisions pertaining to the degree of reliance on the work of internal auditors. The empirical findings of this study provide detailed analysis of the reason why auditors seek information about accounting estimates, the reasonableness of management estimates, auditors reliance on internal control, auditors’ rotation, as well as the impact on auditor independence at different sections of this thesis. The contributions of the current study towards enhancing the understanding of the methods and procedures applied to audit FV are summarized at sections 6.4.1, 6.4.2 and 6.4.3. Moreover, this study presents additional findings of the analysis at section 6.7. Overall, it is recommended to further investigate the interconnection between accounting estimates and its impact on FV audit.

Research Questions 2 (RQ2) what are the Challenges and Complexities of a FV Audit?

RQ2 (1) examined the key challenges and its impact on financial reporting. The major challenges of fair values are identified. Hence, the challenges are auditors’ lack of exposure to fair value audit, reliability of market information, competence, management bias and verification of the client firm, leadership style and the role of managers of the client. The results from this study also suggest that issues that hamper the capability of the authorized auditor to audit FV are considered supplementary challenges of auditors. Thus, the results of this study show that the audit industry has no chance but to audit fair values with complexities. In this regard, the results in this study suggest that the Big 4 Audit Firms emphasized the importance of following the rules outlined by IFAC. However, the industry performs AFV with problems. First, results have shown that the industry is rendering the FV audit with complex valuation techniques. Second, the audit industry is facing a challenge in determining the values of the assets since there are different prices for the same asset in the market. Third, the audit industry is performing the valuation of fair values with two weaknesses. These are the limited availability’ of listed companies and auditors’ lack of exposure to fair value audit at regional audit firms. The current study discussed the AFVM and disclosures, and challenges of auditing fair values in a separate chapter (details could be seen from chapter 3); wherein, the applications of ISA 540 audit procedures were covered in detail. In this regard, broader investigation of auditors’ opinions is recommended to further studies.

This study also finds that auditors’ lack of exposure to audit of FV is a crucial challenge. That is auditors’ technical knowledge of ISA 540 and related pronouncements at a regional office of the Big 4 Audit Firms are limited. Hence, it is considered as one of the shortcomings of audit firms. Provided that the ISA 540 is an advanced audit regulation and designed to have a significant impact on quality of an audit report, the study reveals that auditor with previous expertise in the field of auditing help companies to audit FV with more degree of precision than junior auditors. Moreover, the desirability of auditors' expertise is also considered as an important element for audit quality. Based on the empirical findings, understanding the client business environment, engagement team formation, internal control, and audit planning are crucial phases of a FVA.
Another potential challenge revealed through this study which is inconsistent with prior research is related to management bias and verification. In this regard, respondents draw their attention for managerial characteristics and leadership styles. They demand from Swedish client firms a managerial hierarchy that can maintain strong internal control and construct proper adjustments to uncertainties. Furthermore, the results also indicate that internal auditors are responsible for the challenges of management verification. Hence, internal auditors are expected to report any acts of irregularities made by managers.

**Research Q 2 (2) What Audit Procedures Should the Auditor Use to Obtain Evidence About FV Measurements and Disclosures?**

By studying the phases of auditing and investigation of ISA 540 applications, the current study identifies remarkable legal courses of action or procedures that the auditor applies to obtain evidence about FVM and disclosures. In the auditing industry, auditing fair value has problems of market reliability and management bias. Due to the nature of the challenges of AFV, the result reveals that audit firms are curious about the evidence that they are collecting. By applying the risk assessment procedures at Ernst & Young or the risk mapping domains applied at PwC, first, auditors are able to reduce the risk of the market reliability. Second, it enables auditors to explore management estimates. Third, it enables auditors to understand the scope of the clients' internal control procedures. Hence, the auditor can collect evidence required for audit of fair value. As for procedures to obtain audit evidences, the empirical analysis and empirical investigation chapter describes the criteria for the engagement team formation, substantive procedures, and related documentation that provide visibility for auditors. These procedures are found helpful in deciding what audit procedure the auditor should focus on during a FV audit.

To sum up, Figures 5.1, 5.2, 5.3, and 5.4 presented in the empirical investigation chapter reveal remarkable audit procedures the auditor should apply to collect evidence at the client acceptance stage. Furthermore, some of the results at the stage of client acceptance are somehow consistent to Johnstone and Bedard (2003, p.1005). The results related to the criteria to select the engagement team, and focus activities or directions presented in Table 5.1 are more to the technical knowledge of an engagement team. The results also hold that the relative degree of risk and the quality of audit report are dependent on the experience of the auditor. The lower the risk, the experienced the auditor is. Furthermore, the thesis reveals at different stages of the empirical investigation chapter that auditor who understands the overall audit procedures is effective in collecting audit evidence, including evidence that helps to identify the stream of the business and legitimacy of activities. This in turn affects the auditors-client relationships pertain to an audit fee. The relationship of client and audit fee is not deemed as a fundamental part of this study, and a further study is recommended.

The current study interpreted data related to this research question at the major phases of auditing. However, the results to a certain extent show that the managers’ estimates are verified by checking the market value of the assets or receiving information from third parties. However, there is a challenge auditors are facing due to the estimation of uncertainties. This challenge is the inconsistency between the requirements of ISA 540, and adjustments made by managers. ISA 540 requires auditors to provide high level of assurance. The work of the auditors is affected since uncertainties are very big and difficult for the auditor to offer an assurance due to credit default or high interest rate. The uncertainties are estimated by specialized auditors who have an engineering background. However, by changing the direction of this study to find a solution for the RQ3 (2), the study tried to explain this research question briefly in different parts of the study. The effect of management estimates and other audit methods, models and procedures are thoroughly covered by different sections of empirical findings and analysis.

### 7.2 Future Implication

#### 7.2.1 Managerial Implication

This study based on a case study of the Big 4 Audit Firms has provided detailed information about the methods and procedures applied by auditors from a practical perspective. From the management point of view, this study pinpointed the basic working models and procedures that are relevant for auditing fair value measurements and disclosures. This study finds that the effectiveness of a fair value audit is affected by the leadership style and role of managers. At the same time, the study shows that the role and leadership style of managers are challenges of auditing fair values. Moreover, the study is an early-warning system that managers should provide comprehensive training for auditors related to the measurement and disclosure practice of FV for auditors working inside their companies. Managers can apply the approaches and methods found in this study to increase the strength of internal control and enhance the corporate governance of their company. For example, by applying the auditors-rotation concept and determining the degree of relationship with clients in terms of non-audit services, managers can enhance the quality of corporate governance. The summary of Figures and Tables are presented as a methodology and procedure for managers to respond to challenges of auditing. Moreover, this study suggests managers should follow a systematic risk audit research approach to increase the effectiveness of internal control.

From the author’s point of view, the auditor should be ready to understand the methods and approaches applied to each phase of the audit. This is not only increasing the competence of the auditor, but also to maintain a strong internal control. This study suggests that auditors should be aware of challenges of auditing fair values. Even though the challenges in terms of the competence of auditors are increasing, the auditor is compensated by more training and understanding the audit procedure related to each phase.
7.2.2 Discussions for Future Research

Despite a lack of research in the field, the IFAC procedures for auditing fair value measurement and disclosures did not consider SME’s. This thesis, however, addressed the issue from the practical perspectives, and incorporated real time working models that could provide efficiency for both listed and unlisted firms. It is recommended that the procedures proposed by the IFAC should address issues of auditing fair value from a risk assessment point of view. In addition to this fact, the current study opens a door for both masters, and doctoral level research related to auditing fair value. More broadly, the study has contributed to the literature by providing information for managing and designing internal control, the formation of the engagement team, the risk assessment procedure and critical analysis of challenges for auditing fair value. Far beyond this, this study discovered the importance of corporate governance principles both for client screening or risk assessment, and protection of management bias. However, a further research in the role of the impact of audit quality and fair value would be great in determining the challenges of auditing fair values. To summarize, there are four main contributions that this thesis has contributed related to the literature and practical applications. To begin with, this study found that client understanding process is the fundamental stage for auditing fair value, which supports the idea of (Dauber et al, 2009, Johnston, 2000; Johnston & Bedrad, 2003 and ISA 540). Secondly, the study contributed visibility to the assessment procedures and methods that are used to evaluate and audit management estimates. The study brings out relevant points that are beneficial but not covered by the IFAC as an approach for reducing bias while auditing fair value. For instance, criteria for selecting the engagement team while auditing fair value as described in Table 5.1. Thirdly, the thesis identifies challenges of auditing fair values, which are also covered by the IAASB (2008) and Ryan (2008). The fourth contribution is the interpretation of internal control while auditing firms. In this regard, this study has substantially contributed a considerable knowledge in the field. This study has also shown the link between internal control and client understanding procedures by identifying methods and approaches essential to auditing fair value.
8 References

1. Acadamic Articles and Books


Felix, W., Gramling, A. & Maletta, M. (2001). The contribution of internal audit as a determinant of external audit fees and factors influencing this contribution. *Journal of Accounting Research (December)*, 513-534


Gramling, A., M. Maletta, A. Schneider, & B. Church. (2004). The role of the internal audit function in corporate governance: A synthesis of the extant internal auditing literature and directions for future research. Journal of Accounting Literature 23, 194-244


Solomon J. (2010). Corporate Governance and Accountability. 3rd ed., Wiley and Sons


Truscott, J. (2009). Fair value accounting the saviour or villain of the future? The Financial Week Special section, 45-46


Zimbelman, M.F. (1997). The effects of SAS No. 82 on auditor’s attention to fraud risk factors and audit planning decisions. Journal of Accounting Research, 75-97

2. Websites


3. Interviews, Lectures and Other Personal Communications


Andreas Rinzen. (2011). Interview about Briefing the topic, problem statement and methodology of AFV. [interview] (personal communication, April 15, 2011)


Appendix

Appendix 1: Questionnaires

In this part of the questionnaire, the auditing FVM - ISA 540 -Challenges and uncertainties of FVM are assessed. This ISA 540 is the latest revision of ISA 545. Please indicate your degree of agreement or disagreement. Select ‘Yes’ if you agree and choose ‘No’ if not. Abstinence is still a choice!

Competence

1. Auditors have acquainted with knowledge of auditing FVA
2. Auditors are familiar with the techniques used to ascertain fair value measurements
3. Auditors have ample opportunities to gain knowledge about fair value measurements

Leadership

4. Managers have the ability to address the challenges faced by auditors in auditing fair value measurements
5. The managerial style and leadership skills are amongst the most challenging tasks of auditing fair value measurements
6. Auditors get sufficient managerial support in the development of auditors knowledge and expertise
7. Ascertaining fair value measurement and providing a valid estimate is dependent on the leadership style of managers

Management bias and verifications

8. Measuring the fair value of an asset or liability is complex and amongst the most challenging tasks of auditors
9. The biggest challenge faced by auditors with fair value measurements is the difficulty of measuring the value of assets
10. The mathematical models and managerial assumptions used for Evaluating the fair values of an asset or liability is the most challenging task of auditors
11. Fair value measurements are challenging due to events from future cash flows, discount rates and other necessary events

Reliability

12. Auditing fair value is more reliable and complex than auditing historical costs
13. It is difficult for auditors to ascertain the fair values of an asset or liability without active market
Part II

The Following Questions are Open-Ended Questions Designed to Investigate Issues of Auditing Fair Value Measurements in General.
1. Could you explain the general audit procedures about fair value accounting?
2. What audit procedure that would most likely be used by an auditor in performing tests of control procedures while performing a fair value audit?
3. What are the methods and applicable procedures that the auditor involves in segregation of duties while creating an engagement team, auditing internal control and planning the audit?
4. What is the manager’s responsibility to protect occurrence of frauds and errors that have happened during estimation of fair values?
5. With respect to management estimates, the auditor should plan to detect errors or irregularities that would have an effect on the financial statements. Could you please mention what audit plans do auditors prepared in auditing FVMs
6. What are the auditor’s analytical procedures while performing an audit of fair value?
7. What is the auditor's responsibility for detecting management bias and verifications presented?
8. What audit procedures would an auditor perform to verify the completeness of management estimates?
9. What are the analytical procedures the auditor is applied while reacting uncertainties, including FV? Is there any risk mapping procedures the auditor is using to understand the client environment?
10. What are the main challenges confined to internal auditing procedures and tests of control?
11. How would your company approach for an estimate made by valuation experts?
12. What affects the auditors’ independence in providing an expression of audit opinion, including FV?
13. How the estimation of uncertainties done in your firm?
14. What are some of the primary audit procedures that the auditor should apply when testing management’s significant assumptions, the valuation model, and the underlying data?
15. What are the criteria for selecting a preliminary audit engagement team?
16. What does ultimately reflect the nature of the preliminary engagement team?
17. Which audit evidence is considered as the most persuasive in auditing FVM?
18. What are the audit procedures the auditor used to perform the reliability of management estimates?
19. In your opinion: is it only manager who is responsible for the effectiveness of internal control?
20. What is the most valid audit evidence relevant to be considered in FV audit?
21. Which audit evidence is assumed with the least degree of persuasiveness?