



Företagsekonomiska institutionen
EKONOMIHÖGSKOLAN VID
LUNDS UNIVERSITET

BUSP03 Master Thesis
Spring 2010

A study on auditor attributes affecting the judgment and approach towards risk

Advisor:

Torbjörn Tagesson

Authors:

Rikard Fransson

Niklas Lindqvist

Abstract

- Title:** A study on auditor attributes affecting the judgment and approach towards risk
- Seminar date:** 4th of June 2010
- Course:** BUSP03 – Degree Project / Master Thesis
- Authors:** Niklas Lindqvist 850531-0212
Rikard Fransson 860227-4170
- Advisor:** Torbjörn Tagesson
- Key words:** Audit risk, auditors risk judgment, auditor attributes, experience, auditor rank.
- Purpose:** The aim of this thesis is to explain if certain auditor attributes affect Swedish auditors judgment and approach towards risk.
- Methodology:** The chosen methodology for this study is an explanatory method with a deductive approach. The method has been commonly used in previous researches in the field of audit risk judgment. With this approach, hypotheses has been formulated and then later tested towards empirical data and existing theories. The data has been collected through a quantitative survey method, which included a questionnaire sent to a selection of auditors in Sweden.
- Theoretical perspectives:** The theoretical perspective is based on the Social Judgment Theory. Certain auditor attributes, which may influence the auditors' risk judgments, have been chosen as the base for the formulation of hypotheses for this study.
- Empirical foundation:** The empirical data has been gathered through a questionnaire that included four different cases concerning audit risk judgment. The questionnaire was distributed to the sample of the study. The answers of the participants were then aggregated into a risk profile for the individual auditor.
- Conclusions:** The findings of the study demonstrate that auditors are a homogeneous profession with a high level of socialization. A high level of consensus regarding values and professional beliefs characterizes the audit profession. The size of the audit firm showed significant influence over the auditor's risk approach, followed by age and social pressure.

Foreword

We would like to thank all the participants that answered our survey and provided us with helpful feedback and comments. Without your participation it would not have been possible to collect the empirical data that were compared to the theoretical framework. Further, we really appreciate the important comments and thoughts from the pilot test group.

We would also like to thank our adviser Torbjörn Tagesson for valuable comments and feedback on our thesis.

Lund, 28/5 2010

Niklas Lindqvist

Rikard Fransson

Table of contents

1. INTRODUCTION	6
1.1 BACKGROUND INFORMATION.....	6
1.1.1 <i>The Audit Risk Model</i>	7
1.2 PROBLEM DISCUSSION.....	8
1.3 PROBLEM SPECIFICATION	10
1.4 AIM	10
1.5 DISPOSITION OF THE STUDY	11
2. METHODOLOGY	12
2.1 RESEARCH APPROACH	12
2.2 THEORETICAL FRAMEWORK.....	13
3. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT	15
3.1 SOCIAL JUDGMENT THEORY	15
3.2 THE PURPOSE WITH AUDITING AND THE CONCEPT OF AUDIT RISK	15
3.3 THE FORMULATION OF HYPOTHESES	16
3.3.1 <i>Development of the Hypotheses</i>	17
3.3.2 <i>Auditing Experience</i>	17
3.3.3 <i>Age</i>	18
3.3.4 <i>The Audit Firm</i>	19
3.3.5 <i>Auditor Rank</i>	20
3.3.6 <i>Accountability and Social Pressure</i>	21
3.4 <i>Summary of the Hypotheses</i>	22
4. EMPIRICAL METHODOLOGY	23
4.1 PREVIOUS RESEARCH METHODS	23
4.1.1 <i>Data Collection</i>	23
4.2 PARTICIPANTS.....	24
4.3 RESEARCH INSTRUMENT	24
4.3.1 <i>Task</i>	25
4.3.2 <i>Pilot Testing</i>	25
4.4 DEPENDENT VARIABLE	25
4.5 INDEPENDENT VARIABLES	26
4.5.1 <i>Experience</i>	26
4.5.2 <i>Age</i>	26
4.5.3 <i>Audit Firm</i>	27
4.5.4 <i>Auditor Rank</i>	27
4.6 ACCOUNTABILITY AND SOCIAL PRESSURE – ANALYSIS OF DESCRIPTIVE STATISTICS	27
5. RESULTS AND ANALYSIS	29
5.1 RATE OF RESPONSE	29
5.2 TEST OF HYPOTHESES.....	30
5.2.1 <i>Hypothesis 1</i>	31
5.2.2 <i>Hypotheses 2a and 2b</i>	32
5.2.3 <i>Hypothesis 3</i>	32
5.2.4 <i>Hypothesis 4</i>	33
5.2.5 <i>Hypothesis 5</i>	34
5.2.6 <i>Hypothesis 6</i>	34
5.3 SUMMARIZING THE RESULTS AND ANALYSIS	36
6. DISCUSSION AND CONCLUSION	37
6.1 FURTHER RESEARCH	40
APPENDIX	41
REFERENCES	51

List of Tables

Table 4.1: Alpha-test on Cases 1-4.....	25
Table 5.2: Sample of the Participants.....	28
Table 5.3: Audit firm belongingness and classification of auditors.....	29
Table 5.4: Descriptive statistics on the case scenarios.....	29
Table 5.5: Correlation Matrix.....	30
Table 5.6: Regression results.....	30
Table 5.7: Descriptive Statistics – Experience.....	31
Table 5.8: Descriptive Statistics – Age.....	31
Table 5.9: Descriptive Statistics – Audit Firm.....	32
Table 5.10: Descriptive Statistics – Auditor Rank.....	32
Table 5.11: Descriptive statistics – Auditor Rank.....	33
Table 5.12: Descriptive statistics – Social Pressure (Difference).....	34
Table 5.13: Independent Samples Test – Audit Firm (Difference).....	34
Table 5.14: Independent Samples Test – Authorization (Difference).....	35

1. Introduction

This chapter introduces the reader into the subject of auditors' judgment and approach towards risk. This leads to the discussion of the research problem and the aim with the study. The chapter ends with a short disposition to present the structure of the study.

The history and development of what we today call statutory audit have been characterized by an uncertainty about the purpose, content and effect that are supposed to be carried out by the audit (Humphrey et al., 1992). This fact may explain the ambiguities recent accounting scandals have resulted in, especially when it comes to the discussion about auditors' role in the scandals and how the auditing standards need to be changed to avoid further scandals. Having this in mind, it can be argued that everyone, to some extent, is affected by the work conducted by auditors.

The role and importance of external auditors can be discussed within several different perspectives and it is no exaggeration to claim that there also exist some ambiguities around the expectations you can have on an external auditor (Hassink et al., 2009). The development and role of external auditors has varied according to the regulatory framework regarding the functions of auditing (Lee et al., 2008). Auditors are closely related to the concept of audit process, which is the activity auditors are supposed to perform during the audits of corporations. While prior researches have focused on the technical aspects of the audit process, Humphrey & Moizer (1990) views auditing as a socially-constituted activity which contains judgment by professionals. Regarding the audit process as a social-constituted activity, which includes individual judgment, it is confirmed that the attributes affecting the risk approach is of great importance during the audit process (Humphrey & Moizer, 1990).

1.1 Background Information

The risk judgment used by auditors affect the outcomes of the audit. Since the audit process can be regarded as a social-constituted activity with involvement of professional judgment, the risk assessment of different accounting issues will vary from auditor to auditor. The international theoretical framework or guidelines, issued by IFAC, related to audit risk defines the process of evaluating the audit risk as follows: "Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment" (International Federation of Accountants (IFAC), ISA 315).

The convergence of auditing standards reinforces the importance of such standards on an international level. The International Standards on Auditing (ISAs) offer a comprehensive guideline for auditors regarding the audit process. The guidelines of auditing are broad in terms of explaining the considerations required to be performed by auditors. Although the guidelines are relevant in explaining the purpose and content of auditing, there are several factors affecting the actual performance by auditors and how auditors prioritize between different issues. It is incorporated in the word "assess" from the guideline above, that differences in auditors' perceptions of risk will arise in the daily practicing of auditing. This fact implies that it is meaningful to examine the explanations of differences between auditors' judgment and approach towards risk.

1.1.1 The Audit Risk Model

A widely practiced model to apply for auditors when determining the audit risk is the audit risk model. The audit risk model serves as a guide for the planning of the audit (Houston et al., 2000). The original audit risk model has three different components, which the auditors need to assess when planning the audit and determine the audit risk. The three components of the audit risk model are; inherent risk, control risk and detection risk (Hayes et al., 2005; Hogan & Wilkins, 2008).

The auditors' use of the audit risk model is based on the need to assess the risk of the audit engagement and a tool for planning which audit activities needs to be performed during the audit. Earlier research tested how auditors use the audit risk model in practice and how they react to changed levels of risk in the three components, which demonstrated the practical usefulness of the audit risk model (Aldersley, 1989). A proper use of the audit risk model requires that inherent risk; control risk and detection risk need to be specified as conditionally dependent (Dusenbury et al., 2000). If the components are measured independently, there will be limited opportunities for the auditor to assess the overall audit risk. The potential weaknesses of the audit risk model are confirmed in a study by Messier & Austen (2000) where a correlation between control risk and inherent risk was found. More interesting was the notion that the auditors' judgment of control risk was highly influenced by the results of the assessment of inherent risk (Messier & Austen, 2000).

Conditionally dependencies among the components last on the assumption that the assessed level of risk in one component will automatically have consequences for the assessed level of risk of the other two components. An example can illustrate the conditional dependency: if the auditor finds the inherent risk to be high, this will affect the detection risk in the way that the auditor needs to perform more substantive procedures, which will lower the detection risk. The conditionally dependencies among the components have been illustrated by many researchers, although in different ways (Dusenbury et al., 2000; Houston et al., 1999; Hayes et al., 2005). An understandable way of illustrating the relationships between the three components of the audit risk model was presented by Houston et al. (1999):

$$Detection Risk = \frac{Acceptable Audit Risk}{Inherent Risk * Control Risk}$$

The conditionally dependencies among the components as illustrated above clarify how the model works as a tool for auditors to manage the risk associated with the audit engagement. The implementation of the model by audit firms is combined with extensive guidelines on how to apply the model in practice. This is proven by prior studies showing that the audit firms use a predetermined level of acceptable audit risk, which then serves as a basis for the detection risk, inherent risk and control risk (Houston et al., 1999).

1.2 Problem Discussion

Despite the commonly practiced audit risk model, there are still differences in how auditors consider the risks associated with their audits. Consequently, research in the field demonstrate that there exist differences in what auditors need to consider in making correct judgments of the overall audit risk. There are several studies that have focused on the influence of the auditees business risk on the audit risk determination (Schultz et al., 2010; Robson et al., 2007). The issue of internal controls has also been a common issue for studies on what really affects the auditors' perception of audit risk (Dusenbury et al., 2000).

As noted above, much of the researches on what affects the auditor's perception of audit risk have focused on business risk and internal controls. It is the intention of ISA 315 to focus on the entity's environment and internal controls to assess the risks of material misstatements in the financial statements. However, the social-constituted perspective of auditing stresses the importance of further relevant issues or attributes of the auditor, that contributes to the determination of audit risk.

During the 1970s several auditing researchers adopted a new research focus, which highlighted studies on auditing judgment and decision-making (Solomon & Trotman, 2003). However, behavioral decision research, which in general is highly interdisciplinary, has been the foundation for studies of auditors' performance. Prior researches focus on the impact of basic cognitive abilities and deficiencies of the decision makers' performance (Ibid). Existing judgment and decision-making audit research can be classified into three different categories: the audit task, attributes of the auditor and auditors interaction with other stakeholders (Nelson et al., 2005). The first category covering the audit task, deals with the variety of tasks performed by the auditor. These tasks will be influenced by the auditor's attributes, which is the second category, such as: individual characteristics, knowledge and expertise, decision aids and cognitive limitations. According to the influence of individual characteristics, previous researches have proven that there is reason to believe that there exist differences in auditors' judgments. The final category consists of the interpersonal interactions between auditor (accountability), auditor/client (negotiations), auditors and others (users of the reports) (Nelson et al., 2005).

Accounting and audit related tasks are affected by education, training and experience of the auditor (Libby & Luft, 1993). Training and experience will influence the performance of certain tasks, implying that these attributes contribute to differences in judgments made by the auditors. Furthermore, the knowledge gathered by experience and training is not equally relevant to all tasks performed by the auditor (Ibid). Training and experience form the ground for large parts of the expertise that the auditor possesses since the knowledge gathered through educations from universities and colleges have limited focus on the practical aspects of auditing. This research and characteristic of the audit profession supports the thesis that audit judgment will differ between auditors. It has also been proven that experience and training have different effects on the audit quality depending on what specific audit task that is measured (Nelson et al., 1995). A great issue of contemporary research in the field of audit judgment is gender. A study on audit judgment by Chung & Monroe (2001) shows that there exist differences in the information-processing ability between genders. Although there are a limited number of researches supporting this notion, gender may explain differences in auditors' judgment. Further attributes of the auditor affecting the knowledge and task performance are the auditor rank and what audit firm the auditor is employed by (Tan, 2001; Carpenter et al., 1994). These studies determine divergence between auditor's judgment that

arise based on the task differences between different levels of auditor ranks and the audit firms propensity to let the auditors use individual judgment in the audit process. It seems reasonable to expect differences in audit judgments between different auditor rank groups according to varying degrees of experience and training as well as variations in audit tasks. A relevant issue regarding auditing judgments and decisions is the great difference between large and small audit firms. The difference in firm structure and task performance between these firms constitutes an interesting phenomenon to explain within the social-constituted perspective of auditing (Morris & Nichols, 1988).

The great number of researches on what different factors that affects the auditor's judgment and approach towards risk implies that risk judgments will not be consistent between different categories of auditors. It is expected that for example differences in training and firm structure between firms will lead to differences in judgment. According to the relevance of social dimensions in the audit profession, it is of relevance for the behavioral research field of auditing to develop a study on what parameters determine the auditors' judgment and approach towards audit risk.

As noted above, the focus of previous researches have been on the interdependencies between different components of the audit risk model, for instance inherent risk or control risk. This approach infers that previous studies have limited the social-constituted perspective of the audit process and instead sought to explain the use of the audit risk model by measuring business risk and internal controls (Dusenbury et al., 2000; Houston et al., 1999). This study will exclude the clients' procedures and responsibilities and focus on the auditor attributes within the social-constituted perspective. The gender perspective will also be excluded because it is our belief that this perspective constitutes a potential study on its own. This is not to say that gender does not explain audit risk judgment, however we have chosen to put our efforts on other explanatory attributes. The different perspectives on auditing and audit risk include existing differences among auditors regarding the risk approach and the assessment of risk during the audit.

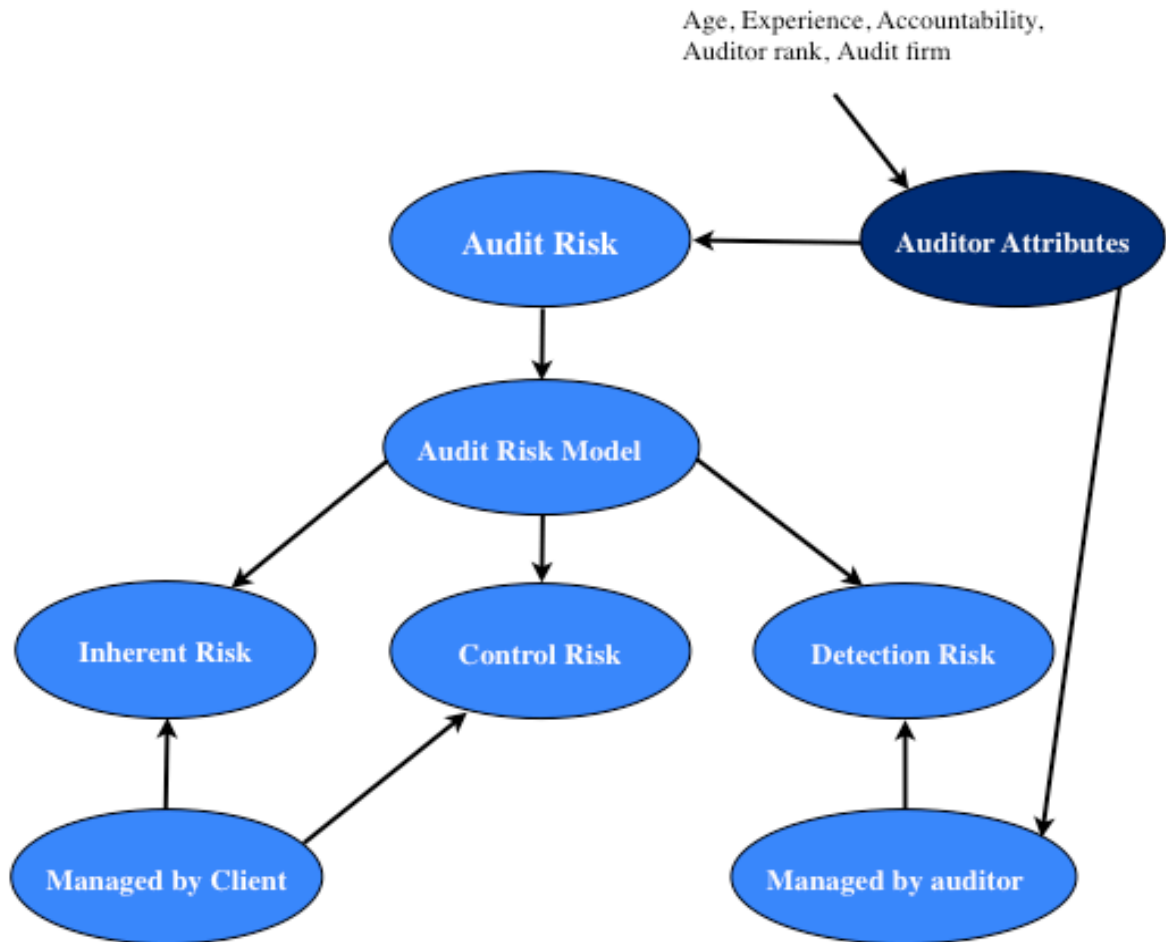


Figure 1: The framework of this study

Figure 1 is intended to describe this study in a wider audit perspective, including the concept of audit risk and its components. The circle named auditor attributes illustrates the focus of this study, namely the auditor attributes that affect auditors' judgment and perception towards risk. The attributes this study focuses on are mentioned above the circle of auditor attributes and are managed by the auditor. The illustration clarifies that this study will exclude the risk components and determinants normally managed by the client.

1.3 Problem Specification

The discussion of auditors risk judgment in relation to previous research has resulted in the following research questions for this study. Do certain auditor attributes explain differences among auditors' judgment and approach towards risk?

1.4 Aim

The aim of this thesis is to explain if certain auditor attributes affect Swedish auditors' judgment and approach towards risk.

1.5 Disposition of the study

Chapter 2: Methodology

This chapter describes the chosen explanatory methodological approach that results in a deductive theoretical process. The purpose with this approach is to be able to test hypotheses and make generally applicable conclusions from the generated empirical results. Also included in this chapter is a review of prior research methodologies in the area of audit risk judgment and decision-making.

Chapter 3: Literature Review and Hypothesis Development

The main content of this chapter are theories concerning the attributes affecting auditor's judgment and approach towards risk. From the reviewed theories we will formulate hypotheses that later will be tested in chapter 5. The attributes used in this study are the auditors' experience, age, auditor rank, audit firm, accountability and client knowledge. The selected attributes derive from relevant existing research in the field of auditors' judgment and approach towards risk.

Chapter 4: Empirical Methodology

This chapter begins with a review of empirical methods used in prior research. The data has been gathered through a questionnaire sent to 1 500 auditors representing both large and small audit firms in Sweden. Furthermore, the dependent variable as well as independent variables will be discussed in relation to how they were intended to be measured.

Chapter 5: Results and Analysis

The statistical data received from the questionnaire is organized to be able to test the hypotheses. The analysis of the data results in supporting or rejecting the hypotheses. The response rate of the questionnaire is analyzed as well.

Chapter 6: Discussion and Conclusion

The last chapter includes a discussion if the aim of the study is fulfilled and if the results that were obtained from the analysis provide any answers to the research problem. Finally the chapter ends with suggestions for further research in the field of auditor's approach and judgment towards.

2. Methodology

In this chapter, the choice of scientific methodology is presented. It starts with the selected research approach that is used to fulfill the aim of the study. Then is the theoretical framework that was chosen for this particular study explained.

The aim with this research is to explain if certain auditor attributes affect Swedish auditor's judgment and approach towards audit risk. To be able to fulfill this aim, a suitable methodological approach had to be selected. Since, the aim is connected to the accomplishment of explaining factors that influence the judgment of Swedish auditors, a research approach that involved the possibility to collect quantifiable numerical data was considered to be necessary for this study. This was due to our intention to generalize the results and not examine a certain situation where the results are more related to that specific context as in the qualitative research method. It would have been difficult to complete a qualitative study with this study's time constraint because of the time it would have taken us to collect sufficient qualitative empirical data on auditors in Sweden in order to make generalizations. Another aspect in favor for the quantitative research method was that the selected attributes of the auditor concern auditor characteristics such as age, auditor rank, audit firm and experience, which can be measured numerically and therefore possible to collect through a quantitative method (Saunders et al., 2007). The quantitative research method was therefore preferred for this study rather than the qualitative method. The quantitative method has been used by other researchers (Abdolmohammadi & Wright (1987), Schultz et al., (2010) and Carpenter et al. (1994) in the field of audit risk judgment. This supported our choice of method for this research. Our intention to base the study on a quantitative research method was to be able to collect a sufficiently amount of empirical data in order to make generalizations concerning the influencing attributes for the whole population of auditors in Sweden. For that reason was this study's epistemological approach based on the research philosophy positivism, which enables the possibility to make generalizations from an observable social reality. The positivistic research philosophy also emphasize quantifiable observations and thereby the use of statistical analysis (Ibid).

2.1 Research approach

The research philosophy of positivism often involves the strategy of generating hypotheses from existing theory, which then will be tested and confirmed. This research strategy is called deduction (Bryman & Bell, 2005). Our intention with this research was to explain if certain attributes could influence the auditors risk judgment. This can be related to one of the important characteristics of the deductive approach, to explain causal relationships between variables (Saunders et al., 2007). Furthermore, other characteristics that the deductive approach possess, which was related to our purpose was to gather information that could be measured quantifiably on a sufficient sample to be able to make generalizations of the statistical results (Ibid). The main purpose with this study was not to generate new theories but rather to use existing theories and empirical research in the field of audit risk judgment in order to find the factors that influence the auditors. However, a result from the chosen approach can be that potential influencing attributes are neglected and that the chosen theories affect the collected empirical data.

The deductive strategy implies that the researcher should be objective of what is being observed. Nevertheless, it is difficult to exclude the effects on a study of the researchers personal views because of the subjectivity in for example selecting and phrasing questions (Saunders et al., 2007). To reduce the effects from our personal views were the hypotheses and survey approach based on audit risk and judgment theories and previous empirical research.

An explanatory approach was then selected, since the aim was to explain the influence of auditor attributes on the auditor's judgment. The explanatory approach focuses on explaining the relationships between variables through studying a situation or a problem (Saunders et al., 2007). The quantitative method enabled us to use a questionnaire to gather empirical data from auditors in Sweden.

According to Solomon & Trotman (2003) is the experimental research method among the most dominant in audit risk judgment research but archival, analytical and survey methods have also been widely used. The main characteristic in the experimental method is the researchers' reproduction of a phenomenon from an inquiry consisting of subjects within a controlled setting, which is assigned randomly. Numerous observations are then made from an active manipulation of that phenomenon (Solomon & Trotman, 2003). The popular experimental research approach inspired for example Carpenter et al. (1994), who used an interpretive experimental simulation research method. Another way of develop an experimental approach is by using an experimental case design as was done by Krogstad et al. (1984). To collect the empirical data we chose a survey method approach by using a questionnaire distributed to a selection of auditors in Sweden. The contents of the questionnaire were inspired by previous research where we created audit risk judgment situations that we could make observations of.

2.2 Theoretical Framework

The theoretical framework for this study was based on theories that are able to explain auditor's risk judgment and decision-making. The theory chapter begins with a review of the Social Judgment Theory to provide a comprehensible view of human decision-making and judgment. The Social Judgment Theory claims that the judgment and decision making of individuals can be influenced by factors that the auditor possesses (Cooksey, 1996). We used this theory as the base for the literature review and related it to research that have examined auditor attributes and risk judgment. From the Social Judgment Theory and reviewed literature were hypotheses then formulated according to the deductive approach.

We developed a model (figure 2 in chapter 3) that was influenced by the Social Judgment Theory, which state that individual attributes can affect the judgment and decision-making (Cooksey, 1996). The model presents the different attributes that we intended to examine, which was: experience, age, audit firm, auditor rank, accountability and social pressure. The selected attributes were selected from previous research such as Libby & Luft (1993), Abdolmohammadi & Wright (1987), Reckers & Schultz (1993), Tan (2001), and Carpenter et al. (1994). The choice to limit the selected attributes was due to a recommendation from the auditor in the pilot test group. The motivation of being selective in the number attributes analyzed was the importance of not doing the questionnaire too extensive. The auditor in the pilot test group meant that an extensive questionnaire could make the respondents less

interested to participate. However, we were aware that other factors could influence the auditor's risk judgment than the selected ones for this study, for example gender that was examined by Chung & Monroe (2001). As a consequence, these five attributes cannot explain a totally comprehensive picture of what influence the auditor's risk judgment. Nevertheless they provide some important explanations to the field of auditor's risk judgment.

3. Literature Review and Hypotheses Development

The third chapter includes the theories and research that concerns this study's aim. It starts with the Social Judgment Theory and is followed by the purpose with auditing and what constitutes audit risk. This is followed by a hypotheses model, which then leads to the literature review of existing research and development of hypotheses.

3.1 Social Judgment Theory

The Social Judgment Theory (SJT) was developed through the 1960s and 1970s with the aim of understanding human decision-making and judgments (Cooksey, 1996). The theory sought to understand human decision making by divide the process into separate parts where different kind of activities and circumstances take place. In making the theoretical, methodological and practical implications of the SJT available and useful, several researchers have used the Lens Model¹ by Egon Brunswik as the vehicle to conceptualize the theory (Bonner, 1990: Cooksey, 1996). The Lens Model of the SJT starts with the ecology (task environment) of the decision followed by the cues or information that later on result in the individual's judgment. The process is characterized by the ambiguities that first exist between the ecology and the cue information as well as the ambiguities around the process when the individuals turn the information to judgments.

The use of the Social Judgment Theory on empirical information and studies is most valuable when the human decision-making is analyzed through correlation statistics (Cooksey, 1996). The correlation statistics is used in order to describe how separate individuals differ in their judgments when they are confronted with available cue information. The ambiguities between the processes in the Lens Model are affected by the attributes of the individual, which affect the final judgment or decision. This makes the theory highly interesting in the sense that researchers may use the methodological characteristics of the model on studies of human judgment and decision-making (Ibid). Cooksey (1996) concludes the usefulness of the SJT on social science by pointing the opportunity to understand the judgment processes of individuals and from that draw general conclusions based on the circumstances surrounding the study.

3.2 The Purpose with Auditing and the Concept of Audit Risk

“The objective of an audit of financial statements is to enable the auditor to express an opinion whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework.” (IFAC, ISA 200, p. 2)

The auditor's function as an independent control mechanism securing the corporations conformity with the existing accounting standards, places great emphases on the auditor's ability to detect and react on different risks (Lee et al., 2008). The definition of audit risk

¹ The Brunswik Lens framework is a model, which consists of a collection of cues that diverge from a criterion in the environment. Different parties can then use these cues to predict the criterion (Dhimi & Olsson, 2008).

implies that there can be errors in the financial statements that the auditor does not detect during the audit:

“The risk that the auditor expresses an inappropriate audit opinion when the financial statements are materially misstated is known as audit risk.”(IFAC, ISA 200, p. 23)

The misstatements in the financial statements can be detected either by the controls and procedures of the client or by the audit process and the audit activities performed by the auditor (Hayes et al., 2005). Audit risk is of great importance since it affects the procedures the auditor needs to perform in conducting high quality audits that are in conformity with general accepted auditing standards (GAAS). These features of audit risk have been studied in earlier research where a relationship between the audit risk and the audit fee were discovered (Hogan & Wilkins, 2008). It was proven that higher audit fees were consequences of higher control risks in the audit engagement (Ibid). Furthermore, the assessment of audit risk is a matter of professional judgment, which implies that there is no one consistent measurement that can be used in determining the audit risk (IFAC, ISA 200, p. A32).

According to Watkins et al. (2004), audit quality is determined by the individual auditor’s judgment and thus it is affected by the individual auditors’ competence. The competence by the auditor is determined by the degree to which the auditor can apply and comply with existing standards on auditing, including the ethical dilemmas the auditor is confronted with (Pflugrath et al., 2007). The relevance of professional judgment in the decision process and the determination of audit quality open up for research about social and psychological aspects of the auditor’s attribute. Social aspects include the concept of audit environment where guidelines and methods by the audit firm will affect the auditor and the auditor’s judgment. The environment of accounting issues consists of technological aid, hierarchical group settings, accountability relationships and monetary incentives (Libby & Luft, 1993).

3.3 The Formulation of Hypotheses

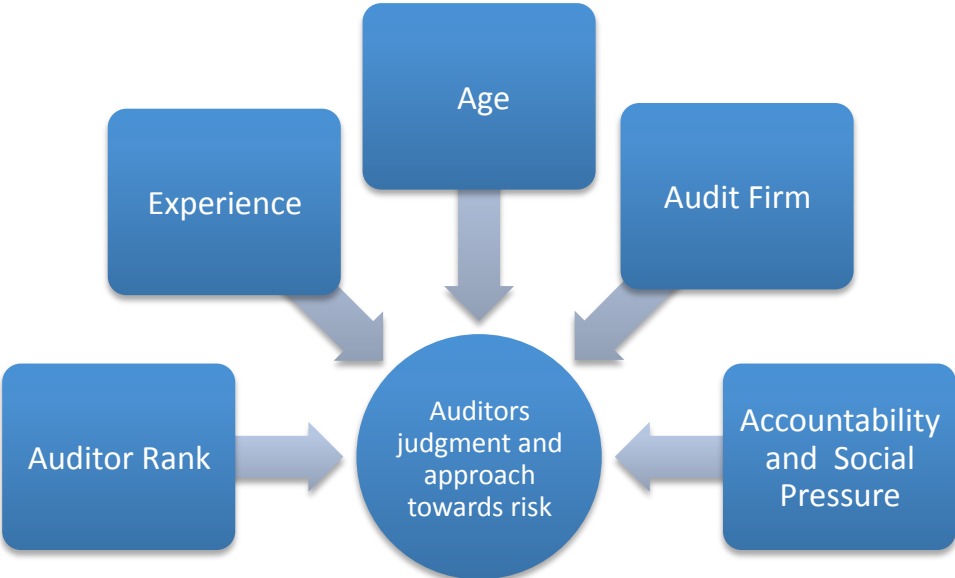


Figure 2: Hypotheses model

3.3.1 Development of the Hypotheses

The model is developed and structured from areas with capability to influence auditors' determination of audit risk. Relevant research concerning each area will be reviewed which will lead to the development of hypotheses. The five areas that this study focus on and which influence the auditor's risk approach are: experience (Libby & Luft, 1993), auditor rank (Trotman et al., 2009), age (Johnson, 1995), audit firm (Carpenter et al., 1994) as well as accountability and social pressure (Johnson & Kaplan, 1991). The selection of auditor attributes has derived from what previous research has focused on which was supplemented by the attribute of age. Selected auditor attributes will be explained with the understanding of the Social Judgment Theory in mind. During the literature review, age was selected because of the possibility to include experience that was not related to professional skills.

3.3.2 Auditing Experience

Auditing experience is an attribute used to describe variations in judgments by auditors confronting the same task. It is reasonable to use experience as an explanatory variable since it is an individual attribute affecting the judgment of the auditor. Experience is related to the concept of knowledge and more specifically error knowledge, which is the auditor's former experience of a particular accounting issue (Tubbs, 1992). Further on, experience is an important determinant of decision performance in the process of performing an effective and efficient audit (Libby & Luft, 1993). Libby & Luft, (1993) refer to a conceptual equation sought to explain the decision performance:

$$\text{Performance} = f(\text{Ability, Knowledge, Environment, Motivation})$$

Knowledge is task-specific as described above and can be changed by the decision-makers learning abilities which makes the knowledge attribute highly individual (Ibid). The importance of experience and knowledge in relation to auditor judgments is confirmed in a previous study where it was placed greater importance on experience than on personal risk attitude by the auditor, when explaining judgment differences between auditors (Farmer, 1993).

Abdolmohammadi & Wright (1987) studied the relevance of experience by testing different audit tasks and reached the conclusion that the importance of experience differ according to the specific task. The study confirmed that certain tasks were considered to be more important by experienced auditors than it was by less experienced auditors. With reference to Abdolmohammadi & Wrights (1987) study, the auditors risk approach and audit risk judgment will differ based on the experience the auditor possesses. In an additional research, it is confirmed that the more complicated and less standardized the audit task is, the more important will the experience be (Krogstad et al. 1984). The study by Krogstad et al. (1984) tested the auditors' judgment concerning materiality, which is a critical judgment in determining the overall audit risk. A similar phenomenon was recognized when the loan collectability was studied; the more experienced auditors concerning this specific task improved the quality and reduced the bias associated with the judgment (O'Reilly et al., 2004).

Based on findings from previous studies on how the experience affects the judgment of auditors, we conclude that auditors with greater level of auditing experience differ from less experienced auditors in their judgment. The findings are more significant for less structured audit tasks like inventory valuation where improved quality is a result of more auditing experience (Martinov-Bennie & Pflugrath, 2009). The indication that the judgment quality of less structured and less standardized audit procedures differ among auditors can be applicable to our study where audit risk is the dependent variable. Using the Lens Model from the Social Judgment Theory, it is likely that the judgments will differ between auditors according to the level of experience, although the same ecology is expected for the questionnaire. The theoretical applicability is due to the second ambiguity zone where the auditor analyzes the cue information, which results in judgments and decisions (Cooksey, 1996). In this study, general auditing experience will be proxied by how many years of experience the auditor possess. The actual quality of the experience is difficult to measure and to supplement potential biases from this fact, age is measured as an independent variable on its own. We expect to find a relationship between auditors' risk judgment and the years of experience they possess.

Hypothesis 1: There is a positive relationship between the risk judgment and the level of experience the auditor possesses.

3.3.3 Age

The research field of risk judgment by auditors tends to generate explanations by combining the two demographic variables experience and age of the auditor. In this study, age is measured as an explanatory variable, independently of experience. The aim with measuring age is to provide a potential explanation of risk judgment by auditors according to the age of the auditor. Furthermore, age provides an additional measure of life experience that is independent from specific job tenure (Johnson, 1995). In some research, age (life experience) has been related to ethical judgments and the correlation between age and ethical judgments is proven to differ according to the type of audit firm the auditor works for (Bernard & Breda, 2010). According to the study by Reckers & Schultz (1993), older auditors made fewer adjustments concerning fraudulent signals than the younger counterparts, implying a more conservative approach by the younger professionals. A study on the moral development with age as an independent variable recognized that the moral development was positively correlated with the age of the participant (Barnett & Valentine, 2004). It is reasonable that the moral development affects the auditor in their assessment of risks associated with their audits. As the Social Judgment Theory infers, the ambiguities between the cue information and the final judgment is affected by the individual attributes where age is one explanatory factor. According to the study by Barnett & Valentine (2004) the moral development, which is an effect of the age of the auditor, will influence the auditor in the judgment process and referring to Reckers & Schultz (1993), this will result in fewer adjustments. In line with that reasoning, we expect that the younger auditors will consider the risks to be higher than the older auditors will do.

Hypothesis 2a: There is a relationship between younger auditors and more conservative risk judgments.

Contrary to the findings by Reckers & Schultz (1993), some studies provide evidence for the conclusion that older auditors are more conservative (Marxen, 1990; Raghunathan, 1991). A

limitation of the findings presented in this section is that the studies do not primarily focus on the judgment of risk. Even though these certain limitations exist and due to the ambiguities that seem to exist between the influences of age over risk judgments, we find reasons for testing the thesis that older auditors are more conservative.

Hypothesis 2b: There is a relationship between older auditors and more conservative risk judgments.

3.3.4 The Audit Firm

A study by Morris & Nichols (1988), specifically examined the audit firm structure in relation to audit judgment consensus. They found a significant positive relationship between the degree of audit firm structure and audit judgment consensus, thereby providing empirical evidence that audit materiality judgment were influenced by audit firm structure (Morris & Nichols, 1988). Another study by Carpenter et al. (1994), focused on how the social context of the audit firm influence the audit judgment process as a social behavioral phenomenon. According to Carpenter et al. (1994) is the structure of the audit firm defined as a part of its culture. Cushing & Loebbecke (1986) inspired the future research concerning the audit firm structure by categorize an audit firm into unstructured (organic), partially structured and highly structured (mechanistic). Carpenter et al. (1994) used this classification of audit firms into their research. Emphases in the unstructured firms are on the auditor's judgment in the process of the audit. This approach derives from fewer details and standardizations in the pre-engagement planning, thereby allowing the individual auditor to make their own non-routine conclusions concerning materiality. In contrast to the unstructured firms, the structured firms pre-engagement planning is highly emphasized. This is due to the fact that responsibilities of the staff were explicitly defined which strengthened the reliance on specialists. In the structured firms was the audit risks quantified during each audit thus making the audit process more standardized (Carpenter et al., 1994).

Carpenter et al. (1994) argues that mechanistic audit firms encode the judgment expertise into a symbolic display into the structure of the organization. Due to the use of models in which the individual feeds information, the auditor's judgment possibilities will be limited (Carpenter et al., 1994). In the organic audit firms is materiality judgment encoded within the individual auditor because of the firms focus on autonomy, decision-making discretion and context-specific decisions. The firm's culture or social context appears to influence the individual auditor's conception of audit judgment. As a result, organic and mechanistic characteristics are important aspects of the firm's culture (Ibid). The reasoning concerning mechanistic and organic firm structures within the audit industry is interesting to interpret into the theoretical perspective on the Social Judgment Theory. Differences in the structures of the audit firms imply that auditors are confronted with different task environments (ecology). These differences have implications when the cue information is presented and thus affects the final judgments and decisions.

According to Libby & Luft (1993) do hierarchically structured groups perform several judgment and decision-making tasks in different accounting settings. The group's strategy choice is closely controlled by firm policies and procedures, decision support systems and professional standards (Libby & Luft, 1993). Further on, Libby & Luft (1993) argues that these environmental characteristics of accounting and auditing have the capability to

influence auditors' judgment performance by interacting with the aspects of experience, knowledge and ability.

The dominance from large audit firms in the audit industry is the consequence of numerous mergers and acquisitions since the 1980's. This dominance makes other audit firms small in comparison to the Big 4 (PwC, E&Y, Deloitte, KPMG) (Cabán-García & Cammack, 2009). It should be clarified that the large audit firms represent the mechanistic firm structure and that the small audit firms represent the organic firm structure. This special characteristic of the audit industry will be examined in this study if it has any influence on auditor's judgment concerning audit risk. The research by Carpenter et al. (1994) and Morris & Nichols (1988) demonstrates that different contexts in audit firms can influence the auditor's materiality judgment. Further on, the findings by Cushing & Loebbecke (1986) pointed out the importance of audit firm structure for the standardization and individual decision making for an auditor. However, some of the reviewed articles derive from the 80s and 90s, thereby not completely up to date with existing conditions today. Carpenter et al. (1994) criticized Morris & Nichols study for the risk of being affected by contemporaneous effects because of the quasi-experimental research design. Since later research refers to these studies, they are not neglected but we are aware of the aspect of timeliness. However, as these researchers have verified through their studies that audit firm characteristics can affect the auditor's judgment, audit firm size influence on the auditor's judgment will be tested.

Hypotheses 3: There is positive relationship between large audit firms and conservative risk judgments.

3.3.5 Auditor Rank

Another auditor attribute is auditor rank, which is a way of describing the category the auditor belongs to. Auditor rank is often used as an alternative variable for measuring auditing experience. Based on the many similarities between the large audit firms, it is suitable to measure how the risk judgment vary along with the category the auditor belongs to. It is expected that auditor rank will influence the judgment made by auditors since the role and responsibilities diverge between the different groups or ranks (Trotman et al., 2009). An example of potential difference is the partner's role, which often includes final decision authority and evaluation of decisions (Ibid). Tan (2001) describes the different ranks as a measure of knowledge since it is the knowledge that determines the category the auditor belongs to. This implies that the higher auditor rank, the higher the quality of the risk judgment will be (Tan, 2001). In a previous study regarding inventory valuation, the partners took a tougher stand than managers and moreover, it was found that the partners reached larger consensus in their valuations than other auditor rank groups (Trotman et al., 2009). A theoretical approach of the Social Judgment Theory infers that the second ambiguity zone between cue information and final judgment will result in differences in judgments between auditors (Cooksey, 1996). Differences in roles and tasks impact how the information is used and evaluated and therefore it will arise differences in judgments according to which level of auditor rank the auditor possesses. Relating these findings to this study, it is expected that the auditor rank will impact the risk judgment in the direction that higher rank imply more conservative judgments and reach higher consensus.

Hypothesis 4: There is a positive relationship between higher auditor rank and conservative risk judgments.

Hypothesis 5: There is positive relationship between higher auditor rank group and larger consensus in risk judgments.

3.3.6 Accountability and Social Pressure

There are further characteristics in the social-constituted perspective of auditing that have been discussed and studied through behavioral researches. The next characteristic to consider is the accountability, which is closely related to the issue of former involvement in a decision or judgment, like participation in prior year's audits (Libby & Luft, 1993). Accountability in the perspective of auditing is the fact that the auditor is accountable for its decisions and judgments to supervisors, clients and regulators (Ibid). The accountability by the auditor can be regarded as a relation with the group or individual the auditor is accountable to, which implies that the nature of the accountability will differ depending on whom the auditor is accountable to (Ibid). Previous researches have focused on the accountability within the audit team, which is the opposite of this study, where the primary focus is the accountability to the client and the effect on judgments of former involvement with the client.

The motivation of researches on accountability and auditor judgment originates from the biases and errors in judgment and decisions due to the fact the auditor is accountable to a group or individual (Johnson & Kaplan, 1991). Johnson & Kaplan (1991) contend that auditors normally take decisions and make judgments, which are later on reviewed and evaluated, which makes the accountability to an important factor in the auditor's judgment environment. A previous study that focused on what signify high quality judgments in public accounting claimed that auditor judgments were influenced by the continuous evaluation of the judgments (Emby & Gibbins, 1988). The results from the study by Johnson & Kaplan (1991) indicate that auditors with a large amount of accountability reach greater consensus in their judgments while a second conclusion implies that auditors with much accountability got improved self-insight. Following this reasoning, there is reason to expect a difference between the audit judgments according to the auditor's level of accountability. The research by Kennedy (1993) places a different perspective on the influence of accountability over auditor judgments. In a going-concern context, the judgments will suffer from insufficient quality of the input data (Kennedy, 1993).

Accountability in front of the client is closely related to the degree of involvement in prior year's audit (Libby & Luft, 1993). This research is followed by studies on to what extent auditors rely on prior working papers in their audits (Wright, 1988). There is previous research indicating that reliance on prior years working paper will negatively affect the efficiency of the audit (Libby, 1982). However, a study on thirty-six auditors from US CPA firms contradicts to that findings and does instead provide evidence for the reverse conclusion. This study concludes that auditors using prior working papers were more capable of recognizing reoccurrence of errors in the financial statement (Wright, 1988). Furthermore, Wright (1988) provides evidence on that the planning and performance of the audit will be more efficient if the auditor gets access to prior working papers by pointing the difficulties in auditing a new client. A third perspective is offered by Tan (1995), where the degree of involvement is measured against the effect on the audit judgment. Libby & Luft (1993) stress the effect of self-esteem and self-presentation by auditors when they claim that there is a risk

that auditors become less critical against their own prior work than work conducted by other auditors, which will decrease the judgment quality.

Summarizing the research on accountability and its influence on audit judgments, we find several potential effects. Along with Wright (1988), the use of prior working papers will enhance the quality of audit judgment and in this study; the authors expect to find differences in the risk judgment between auditors according to the length of the audit engagement. Previous research has found a relationship between accountability and the audit judgment out of the social pressure the client expose the auditor to and the relationship becomes more significant as the length of the audit involvement increases (Tan, 1991). These findings support our thesis about the effect of accountability on the audit judgment.

Hypothesis 6: Social pressure will influence the audit risk judgment made by the auditor.

3.4 Summary of the Hypotheses

Hypothesis 1: There is a positive relationship between the risk judgment and the level of experience the auditor possesses.

Hypothesis 2a: There is a relationship between younger auditors and more conservative risk judgments.

Hypothesis 2b: There is a relationship between older auditors and more conservative risk judgments.

Hypotheses 3: There is positive relationship between large audit firms and conservative risk judgments.

Hypothesis 4: There is a positive relationship between higher auditor rank and conservative risk judgments.

Hypothesis 5: There is positive relationship between higher auditor rank group and larger consensus in risk judgments.

Hypothesis 6: Social pressure will influence the audit risk judgment made by the auditor.

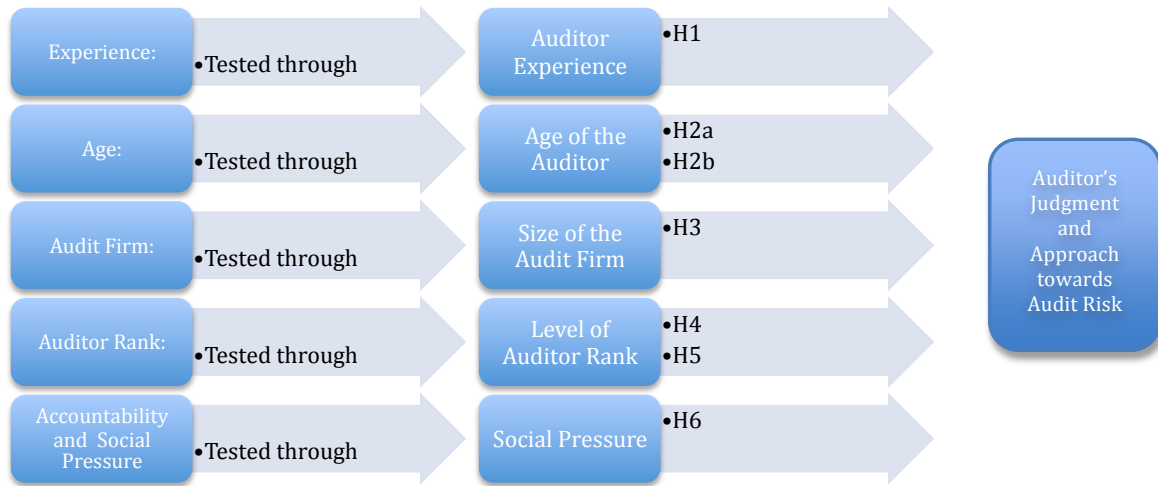


Figure 3: Summary of the hypotheses

4. Empirical Methodology

This chapter describes the method used in order to collect data concerning the hypotheses. The research instrument used was a questionnaire, which was sent to auditors in Sweden. Further on, the dependent variable and independent variables will be explained.

4.1 Previous Research Methods

This study has an explanatory approach with the aim of explaining how different auditor attributes affect Swedish auditors judgment and approach towards risk. Previous research in the area of audit judgment such as Schultz et al. (2010) and Abdolmohammadi & Wright (1987) use an experimental design in their studies. These studies were conducted by formulating hypotheses, which were then tested by surveys or cases that enabled them to analyze the results statistically (Schultz et al., 2010; Abdolmohammadi & Wright, 1987). The approach for this study has been inspired of the mentioned researches including hypotheses development, cases and statistical analysis.

4.1.1 Data Collection

The chosen data collection approach used was a quantitative cross-sectional survey method. To reach our desired quality of data, the survey method was found to be a suitable method with respect to the time limit of the study and the limited possibilities to bring personal interviews into existence. The survey is an appreciated method because it is simple to understand and provide the researcher with standardized and quantitative data. Further advantages with the survey method are the exclusion of potential biases of personal interviews and the possibility to collect a large amount of data in a limited period of time (Saunders et al., 2007). This method enabled us to perform statistical analysis of the collected data. The negative aspects of the chosen method are a potential low rate of response,

limitation of the number of questions that is possible to include in a questionnaire and the possibility of participants misunderstanding the case material and the questions (Ibid).

4.2 Participants

The participants selected for this study represents auditors from the Big 4 audit firms, complemented by auditors from small audit firms. A first selection of participants was made through utilizing our contacts in the auditing industry. The selected auditors represented the different categories used as independent variables. Another selection of participants was made from the FAR SRS database over authorized auditors. The survey was distributed to a total amount of 1 500 auditors, which formed the sample for this research. The population of auditors in Sweden consists of approximately 4 300 auditors according to the trade organization FAR. The cause of not distribute the questionnaire to the population was that we could not get access to the register of the members of FAR. The questionnaire were sent on the 5th of May 2010 and then expired the 16th of May.

To avoid firm specific biases in the study, there are several different audit firms represented in the empirical data. Auditor's representing the Big 4 audit firms consists of auditors from different levels of auditor rank, from associates to partner level. The relevance of selecting auditors from different levels of auditor rank in judgment related studies is widely used by judgment and decision-making researchers (Krogstad et al., 1984; Abdolmohammadi & Wright, 1987). The selection has been proven to be suitable for judgment studies on more complicated and less standardized audit tasks (Ibid).

4.3 Research Instrument

The research instrument used to collect relevant data was a questionnaire, which included specific audit scenarios in the form of cases. The design of the questionnaire was based on audit research articles from Schultz et al. (2010); Johnson & Kaplan (1991); Tubbs (1992). The financial information in case one was inspired by the experimental design used by Schultz et al. (2010). This case reflects assessment on a financial statement level to measure the participant's initial ability to assess the financial position of the client. After the first case scenario, the questionnaire continued by measuring the assessment of specific items from the financial statements, including valuation of inventory, accounts receivable and revenue recognition. Especially inventory write-downs have been a common variable to use for examining differences in judgments (Reckers & Wong-on-Wing, 1991). The assertions and statements in case two and three were formulated to fit the aim of measuring auditors' judgment and approach towards risk as in the studies by Johnson & Kaplan (1991) and Tubbs (1992).

According to the data from the surveys, the auditors received an individual risk profile derived from all the four case scenarios in the survey. These profiles were then compared to the other auditors risk profiles and later on discussed in the perspective of the independent variables. Measuring the absolute difference in auditors' judgments has been used in previous research by Martinov-Bennie & Pflugrath (2009). A second type of analysis was used when testing the hypothesis regarding social pressure and accountability. In this analysis, two case

scenarios (totally four cases were used) form the basis for analyzing differences in judgments. Differences in judgments from the two case scenarios are presented and discussed when testing the applicability of hypothesis 6.

4.3.1 Task

To begin with, the participants were provided with some background information and instructions and then the disposition of the questionnaire were presented. The questionnaire started with brief questions in order to collect data for the independent variables for the study. In case scenario one, the participants were asked to make a judgment whether there were an overall risk of material misstatement in the client's classes of accounts from the balance sheet and income statement. The strategic aspect in the first case was supposed to take the perspective of audit risk into account. Judgments and assessments of risk were measured from low risk to high risk using a scale from 1 to 10. Remaining sections of the questionnaire provided the participants with several assertions on specific items from the financial statements, which all were intended to determine the risk level associated with the item. These were also measured from low risk to high risk by using a scale from 1 to 10. The questionnaire measured the assertions independently and after that, each case scenario was completed by a risk assessment of the item with all assertions taken into consideration. Auditors are often faced with time pressure during their audits, which previous studies have considered in the case materials (Martinov-Bennie & Pflugrath, 2009). Participants were asked to complete the questionnaire within 15 minutes in this study in order to reach a more realistic judgment situation. The questionnaire was distributed to the participants through the web survey tool Textalk.

4.3.2 Pilot Testing

The quality of the statements and questions used in the questionnaire influence the validity of the study. To improve the validity, the questionnaire was tested on one audit practitioner and two accounting academics independent of each other. The auditor in the pilot test group reviewed and commented on the case material to make certain that it reflects a potential audit task in their daily practicing. Another purpose of using a pilot test group was to assure that the background information and assertions were realistic in nature as well as it measured what was intended.

4.4 Dependent Variable

The differences between auditors risk judgments in this study were measured by one dependent variable in our regression, namely by using an aggregated risk profile for each auditor. Aggregated risk profile of each auditor was determined by the mean of the risk values arrived from the four separate cases, case one to case four. The dependent variable gave the participants an individual risk profile where a high number (ranging from 1-10) indicated that the auditor regarded the risks associated with the case as high. In order to be sure about the

relevance of aggregating the four separate cases, an alpha-test in SPSS was conducted. The alpha-test measures the reliability between the variables to control that they do not measure the same aspect (Djurfeldt et al., 2010). The internal consistency between the separate cases shows a value of 0,714, which is more than acceptable. In most social science research situations a coefficient of 0,7 is considered to be acceptable.

Reliability Statistics

	<i>Number (N)</i>	<i>%</i>	<i>Cronbach's Alpha</i>	<i>Number of items</i>
Cases – Valid	75	100	0,714	4
Excluded	0	0		

Table 4.1: Alpha-test on Cases 1-4

The nature of audit risk involves professional judgment by the auditor, which makes the variable appropriate in studies of the determinants of audit judgment. Since the aim with this study was to explain if certain auditor attributes influence judgment and approach towards risk, the focus of the dependent variable was not on the actual quality of the judgments made by the participants. Instead, the dependent variable was measuring differences in judgments between the participants that can be explained by the different independent variables.

4.5 Independent Variables

The independent variables used in this study are: experience (1), age (2), audit firm (3) and auditor rank (4).

4.5.1 Experience

The first independent variable in this study was auditing experience. Experience is one of the most used variables in studies concerning behavioral researches in accounting and auditing. The motive behind the choice of experience as an explanatory variable in this study was the relation between experience and knowledge. In previous researches, experience has proven to be a determinant of knowledge, which influences the performance of auditors (Libby & Tan, 1994; Libby & Luft, 1993). This relationship implies that auditing experience was measured in order to explain differences in auditors' judgment and approach towards audit risk. The notion that experience is a possible explanation of auditor judgments is supported in several studies (Gibbins, 1984; Birnberg & Shields, 1984). As in the study by Abdolmohammadi & Wright (1987), this research measures auditor experience by how many years the auditors have worked as auditors. Number of years and months measure experience in an objective manner and it is in accordance with the thesis that experienced accountants and auditors rely heavily on the wealth of job-related knowledge (Libby & Luft, 1993; Tubbs, 1992).

4.5.2 Age

Age can be related to some of the other independent variables in this study, for example auditor rank and experience. There is limited research on age as an independent variable in

studies on audit risk judgments. The intention with including age as a determinant of risk judgments is to explain differences in auditors approach towards risk. Age has the potential to divide auditors in different categories and explain attitudes among auditors that neither can be related to experience nor auditor rank (Johnson, 1995).

4.5.3 Audit Firm

Audit firm was used as an independent variable because of the existing conditions in the audit industry where four audit firms dominate the market. This difference in size between small and large audit firms was utilized as a factor to examine auditor's audit risk judgment. Audit firm size can be measured for example through turnover, profits, and number of auditors or audit partners. Pierce & Sweeney (2010) used audit partners as the audit firm size variable when measuring the influence of audit firm size on ethical judgment. However, we used both firm belongingness (one of the Big 4) and the number of auditors at a specific office to measure the size of an audit firm.

4.5.4 Auditor Rank

Another chosen variable for this study was auditor rank. Aranya & Ferris (1984) found that the commitment differed between staff employees and managers. The managers were more committed both towards the firm in which they were employed and the auditing profession in general. Another difference concerning auditor rank is the task performed by different levels in an audit firm. According to Jimbalvo & Pratt (1988) are auditors at higher levels of the audit firm, using more professional judgment and perform less structured tasks than auditors at lower levels. Thereby was auditor rank a preferred independent variable for this research and was tested if it influenced auditor's risk judgment. The amount of different levels of rank in an audit firm is dependent on the size of the firm. Due to the structure of today's audit firms, the levels chosen for auditor rank were associate, senior associate, manager, senior manager and partner. Another way of divide auditors in different ranking groups is by level of authorization, which was used as a complement in the analysis of auditor rank.

4.6 Accountability and Social Pressure – Analysis of Descriptive Statistics

Accountability and social pressure in connection to auditing exist in terms of evaluation of the work the auditor perform, where the judgments made by the auditor is critical (Martinov-Bennie & Pflugrath, 2009). The motive behind including accountability and social pressure as a variable to test in this study was that when there exist social pressure, studies have proven that auditors tend to tailor their judgments to their audience (Buchman & Tetlock, 1996). It has the consequence that very good client knowledge might affect the auditors risk judgment. Accountability can be regarded as internal or external depending on whom the accountability

or social pressure derives from (Kennedy, 1993). The external perspective in terms of social pressure from the client was in focus of this study.

To measure the influence of social pressure on audit risk judgment in this study, an additional case scenario in the case material was used. The analysis of hypothesis 6 was not conducted through the regression since it intended to measure the difference in risk judgment between two separate case scenarios, namely case two and case four. Analysis of hypothesis 6 was made by creating a new variable, which consisted of the difference between the auditors risk judgment in case scenario 2 and case scenario 4. A positive value of the difference between these two cases indicated that the auditors regarded the risks associated with the inventory as lower when they were exposed to social pressure. The participants were confronted with two different judgment scenarios, where the only difference was the accountability and social pressure that existed in case scenario four. Changed decision conditions have been used in a study on accountability and materiality judgment by DeZoort et al. (2006).

5. Results and Analysis

In this section, we analyze and discuss the seven hypotheses, H1-H6, in terms of their relevance and applicability over the dependent variable auditor judgment. Analysis and discussions are based on the empirical information received from the questionnaires that were answered by 75 Swedish auditors.

5.1 Rate of Response

The received answers from the sample resulted in a total rate of response of 5 %. This rather low rate of response can be explained by the fact that there were many similar surveys asking for auditor's participation at the moment. We therefore found difficulties in attaining their attention. Another possible factor explaining the rate of response was the high workload auditors experienced at the time of the survey and numerous auditors answered that they had too much to do with their client's tax returns. Table 5.2 shows the sample of auditors and which firms they represent. The smallest audit firms are classified as other. Out of the 1 500 auditors are both Big 4 firms and small firms rather equally represented. However, the firms in the middle segment; BDO, Grant Thornton and SET are underrepresented in the sample compared to the other two groups. This fact may imply that the result from the questionnaire might contain firm specific biases.

<i>Class</i>	<i>Firm</i>	<i>Sample of Auditors</i>	<i>Number of responses</i>		<i>Response Frequency</i>
			<i>(nmb)</i>	<i>(%)</i>	<i>(%)</i>
1	PwC	300	13	4,3	17,3
2	E & Y	207	13	6,3	17,3
3	Deloitte	65	9	13,8	12,0
4	KPMG	171	8	4,7	10,7
5	Grant Thornton	95	6	6,3	8,0
6	BDO	64	3	4,7	4,0
7	SET	35	1	2,9	1,3
8	Other	563	22	3,9	29,3
Total:		1 500	75	5,0	100,0

Table 5.2: Sample of the participants

Out of the 75 answers from the survey, 43 were from the Big 4 audit firms (57,3 %). This shows a slightly higher rate of response (5,8 %) from the Big 4 compared to the smaller audit firms in this study (4,2 %). Between the Big 4, Deloitte shows an outstanding rate of response of 13,8 %. A reservation of these findings needs to be done because of the limited sample of auditors from Deloitte. As table 5.3 shows are the respondents rather equally divided between the two types of authorized auditors that exist in Sweden. Another characteristic of the participants was that most auditors work in the three largest cities of Sweden (Stockholm, Göteborg, Malmö). The conclusion that can be drawn from the analysis of the rate of response in this study is that the results represent judgments of auditors from both large and small audit firms. Although the intention was to be able to draw conclusions about auditors from Sweden,

the bias of the participants induces that the conclusions are limited to represent auditors from the three largest cities.

<i>Class</i>	<i>Firm</i>	<i>Authorized (Auktoriserad)</i>		<i>Authorized (Godkänd)</i>		<i>No authorization</i>	
		<i>(nmb)</i>	<i>(%)</i>	<i>(nmb)</i>	<i>(%)</i>	<i>(nmb)</i>	<i>(%)</i>
1	PwC	6	46,1	6	46,1	1	7,7
2	E & Y	4	30,8	7	53,8	2	15,4
3	Deloitte	3	33,3	4	44,4	2	22,2
4	KPMG	5	62,5	3	37,5	0	0
5	Grant Thornton	4	66,7	2	33,3	0	0
6	BDO	2	66,7	1	33,3	0	0
7	SET	1	100,0	0	0	0	0
8	Other	9	40,9	13	59,1	0	0
Total:		34	45,3	36	48,0	5	6,7

Table 5.3: Audit firm belongingness and classification of auditors

5.2 Test of Hypotheses

Table 5.4 presents descriptive statistics over the risk judgments of the separate case scenarios as well as of the aggregated risk profile. Table 5.5 is a correlation matrix with aggregated risk profile as constant, which was measured with experience, authorization, age, auditor rank and audit firm. Together with the regression results of table 5.6, these two tables formed the bases for the analysis of hypothesis 1 to hypothesis 4. The regression results were created in two models due to collinearity problems between age and experience. After the correlation matrix and regression results we used a test of standard deviations of the different auditor rank groups in order to test hypothesis 5. The mean aggregated risk profile in the different categories of auditor rank was calculated and compared with each other. Finally was hypothesis 6 regarding accountability and social pressure measured using the descriptive statistics followed by test of the relationship with independent variables through Independent-Samples T-test.

<i>Case</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Deviation</i>
Case 1	2,25	7,5	4,9259	1,0653
Case 2	2,83	8,5	6,0717	1,2217
Case 3	2,00	10	6,6693	1,8323
Case 4	2,67	8,17	5,5868	1,1951
Mean of Case 1-4	3,28	7,96	5,6972	0,9627

Total respondents: 75 (N)

Table 5.4: Descriptive statistics on the case scenarios

<i>Variables</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
1. Aggregated risk profile	1					
2. Experience	0,373	1				
3. Authorization	0,236	0,001**	1			
4. Age	0,183	0,000**	0,002**	1		
5. Auditor rank	0,609	0,000**	0,002**	0,000**	1	
6. Audit firm	0,034*	0,000**	0,626	0,000**	0,001**	1

Total respondents: 75 (N)

*Correlation is significant at the 0,05 level (2-tailed)

**Correlation is significant at the 0,01 level (2-tailed)

Table 5.5: Correlation Matrix

<i>Variables</i>	<i>Model with the variables audit firm, experience, auditor rank and authorization</i>			<i>Model with the variables audit firm, auditor rank, authorization and age</i>		
	<i>B</i>	<i>Std. Error</i>	<i>Tolerance</i>	<i>B</i>	<i>Std. Error</i>	<i>Tolerance</i>
Constant (Aggregated risk profile)	4,216	0,783		5,029	0,707	
Audit firm	0,701*	0,289	0,681	0,632*	0,293	0,666
Experience	0,008	0,014	0,574			
Auditor rank	0,092	0,124	0,660	0,113	0,126	0,646
Authorization	-0,432°	0,255	0,732	-0,379	0,252	0,754
Age				-0,001	0,013	0,556
R ² /Adj. R ² /F-value/ Sig.	0,098/0,047/1,910/0,118			0,095/0,043/1,831/0,133		

Total respondents: 75 (N)

* Correlation is significant at the 0,05 level

° Correlation is moderately significant at the 0,10 level

Table 5.6: Regression results

5.2.1 Hypothesis 1

Hypothesis 1: There is a positive relationship between the risk judgment and the level of experience the auditor possesses.

Result of the correlation matrix in table 5.5 showed no significant evidence for the hypothesis that experience is a determinant of risk judgments by auditors. Although the results did not showed any significant relationships, the regression result of table 5.6 showed indications that a positive relationship exists between aggregated risk profile and experience (B-value = 0,008). Auditors with more experience regarded the risk associated with the cases as higher than auditors with less experience. This is a vague assumption since the correlation coefficient was measured to be 0,373, which mean no significance of the regression at all. When the hypothesis was tested separately on the four different cases, the situation changed marginally were cases 1, 2 and 4 showed no significant evidence of hypothesis 1. However, case 3 supported the hypothesis, provided a P-value of 0,091. Case 3 contained a scenario with valuation of several items from the financial statement, which served as tool for assessing the overall audit risk of the client (Reckers & Wong-on-Wing, 1991).

<i>Variable</i>	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Deviation</i>
Experience	75	1	40	17,93	10,241

Table 5.7: Descriptive Statistics – Experience

5.2.2 Hypotheses 2a and 2b

Hypothesis 2a: There is a relationship between younger auditors and more conservative risk judgments.

Hypothesis 2b: There is a relationship between older auditors and more conservative risk judgments.

The dependent variable aggregated risk profile was tested against the auditor’s age. To test hypothesis 2a and 2b, the correlation test was conducted to possibly find any significant relationships in line with the developed hypothesis. Results indicated no significant relationship between the aggregated risk profile and the age of the auditor. The regression results indicated that a negative relationship exists between the individual risk profile and the age of the auditor, as expected in hypothesis 2a. In other words, the results slightly supported the notion that younger auditors are more conservative than the older counterparts regarding audit risk.

During the analysis of hypothesis 2a and 2b, the age of the auditor was tested against the four cases one by one. The intention was to observe if there were any cases differing from the other in the sense of giving significant support for the formulated hypothesis. It was proven that case 3 differed from the other cases by giving stronger support for hypothesis 2a; younger auditors are more conservative regarding risk than older auditors. The negative relationship was confirmed and a correlation value of 0,058 means that the relationship is almost significant at a 0,05 level. Summarizing the results for hypothesis 2a and 2b, the overall risk judgment cannot be explained by the age of the auditor. On the other hand, as the analysis of case 3 shows, age is an explanatory factor of overall judgment of items from the financial statements in the direction that younger auditors are more conservative.

<i>Variable</i>	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Deviation</i>
Age	75	26	65	44,67	11,609

Table 5.8: Descriptive Statistics – Age

5.2.3 Hypothesis 3

Hypotheses 3: There is positive relationship between large audit firms and conservative risk judgments.

Hypothesis 3 was intended to measure the difference in risk judgments between auditors from large audit firms and auditors from small audit firms. To be able to measure the potential relationship between risk judgments and if the auditor is employed by a large or small audit firm, it was necessary to class the participants into two different groups. In the analysis of hypothesis 3 were auditors from PwC, E&Y, KPMG, Deloitte, Grant Thornton, BDO and

SET classified as auditors from large audit firms, either according to the firm (Big 4) or the number of auditors at the specific office. Dummy variables were created based on the classification in order to measure the correlation.

The regression results presented a positive relationship between the size of the audit firm and the aggregated risk profile (B-values of 0,701 and 0,632) implying that auditors from large audit firms generally are more conservative regarding audit risks than auditors from small audit firms. The observed data from the analysis confirmed previous researches and supports hypothesis 3. Furthermore, the positive relationship is proven to be significant according to the correlation matrix in table 5.5. Depending on what case scenario the analyze regards, hypothesis 3 showed differences in how strong the positive relationship between audit firm size and risk approach. Case scenario 4 showed little support for hypothesis 3 while case scenario 3 indicated a strong relationship that is almost significant at a 0,01 level (P-value = 0,011). These differences in support for hypothesis 3 are persistent with the results from hypothesis 1, 2a and 2b where case scenario 3 has been proven to show the most obvious relationships.

<i>Variable</i>	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Deviation</i>
Large Audit Firm (Aggregated risk profile)	53	3,28	7,96	5,8483	0,85396
Small Audit Firm (Aggregated risk profile)	22	3,4	7,76	5,3332	1,12396

Table 5.9: Descriptive Statistics - Audit Firm

5.2.4 Hypothesis 4

Hypothesis 4: There is a positive relationship between higher auditor rank and conservative risk judgments.

To test hypothesis 4 regarding the auditor rank as an explanatory variable of audit risk judgments, dummy variables were created in order to quantify the string variables (Djurfeldt et al., 2010). The analysis contained associates, senior associates, managers, senior managers and partners as a five-number variable. Result of the correlation tests showed no significant relationships between auditor rank groups and the aggregated risk profile. The regression result gave B-values of 0,092 and 0,113 respectively, indicating that auditors with higher auditor rank make more conservative judgments although the limited level of significance (0,609) means that no conclusions can be drawn. Out of the tests on hypothesis 4, it is concluded that there is no likelihood that auditors with higher audit rank will make more conservative judgments.

<i>Variable</i>	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. Deviation</i>
Associate	3	5,8	6,24	5,9600	0,24331
Senior Associate	3	5,12	5,92	5,5600	0,40596
Manager	29	3,68	7,96	5,8100	0,85548
Senior Manager	16	3,28	7,76	5,4575	1,19376
Partner	24	3,40	7,24	5,7050	1,03644

Table 5.10: Descriptive Statistics - Auditor Rank

5.2.5 Hypothesis 5

Hypothesis 5: There is a positive relationship between higher auditor rank group and larger consensus in risk judgments.

The hypothesis of differences in consensus between different levels of auditor rank were tested and analyzed through the use of standard deviation. This statistical measurement can be used to determine if auditors from higher levels of auditor rank make audit risk judgments with greater consensus. The less standard deviation recognized in the auditor rank groups, the higher is the consensus. Included in the analysis were the levels of auditor rank: Associates, Senior Associates, Manager, Senior Manager and Partner. These levels were tested towards the aggregated risk profile. A reservation needs to be done concerning associates and senior associates since the numbers of participants from these groups were small. As table 5 shows are the means for the five levels in the interval between 5,46 and 5,96 with manager and partner very closely to each other. The standard deviation is high for managers, senior managers and partners ranging from 0,86 to 1,19. The manager level shows a slightly lower standard deviation than the senior managers and partners, which is not consistent with the hypothesis that predicted that the partner would have a greater consensus. In sum: We find no results indicating that higher auditor ranks implies larger consensus in audit risk judgments.

<i>Auditor Rank</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error</i>	<i>95% Confidence Interval for Mean</i>	
					<i>Lower bound</i>	<i>Upper bound</i>
Associates	3	5,9600	0,24331	0,14048	5,3556	6,5644
Senior Associates	3	5,5600	0,40596	0,23438	4,5516	6,5684
Manager	29	5,8100	0,85548	0,15886	5,4846	6,1354
Senior Manager	16	5,4575	1,19376	0,29844	4,8214	6,0936
Partner	24	5,7050	1,03644	0,21156	5,2674	6,1426
Total:	75	5,6972	0,96265	0,11116	5,4757	5,9187

Total respondents: 75 (N)

Table 5.11: Descriptive statistics – Auditor Rank

5.2.6 Hypothesis 6

Hypothesis 6: Social pressure will influence the audit risk judgment made by the auditor.

Tests of hypothesis 6 differ from the other tested hypothesis since it measured differences in auditors' judgments concerning two specific case scenarios in the survey, namely case scenario 2 and 4. Both scenarios included the task of evaluating the inventory of their client, with the difference that the auditor was accountable to and confronted with social pressure by the client in case scenario 4. A new variable was created in SPSS to make an analysis of hypothesis 6 possible. The new variable consisted of the difference between the auditor's judgments in case scenario 2 and 4, where a positive value indicated that the auditor regarded the risk associated with the inventory as lower when they were exposed to social pressure.

The overall results of the descriptive statistics from the new variable showed a positive relationship between social pressure and less conservative risk judgment (Mean = 0,4983). In other words, this study indicates that auditors regard the risk associated with inventory

valuation as lower when they know their clients well and feel accountable in front of them. Although the results are obvious, the test indicated that the perceived difference vary substantially from auditor to auditor (Standard Deviation = 0,7843). Using a 95 % confidence interval of the difference between the case scenario 2 and 4, it is proven that auditor's make different judgments when the client exposes them to social pressure. Further analyses were made with the intention to test if there existed differences between auditor groups regarding the influence of social pressure and client knowledge. It was verified by the Independent-Samples T-test in table 5.14 that a difference in the effect of social pressure and client knowledge existed between authorized auditors and non-authorized auditors. A similar test was performed (table 5.13) to test if it existed an audit firm effect on social pressure and client knowledge. This test confirmed previous tests regarding audit firm effects since it showed that auditors from large and small audit firms differed in how they were influenced by the relation with their clients.

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
Case 2	75	6,0717	1,2217	0,14107
Case 4	75	5,5868	1,1951	0,13800
Difference	75	0,4983	0,7843	0,09057

	<i>T</i>	<i>Df</i>	<i>Sig. (2-tailed)</i>	<i>Mean difference</i>	<i>95 % Confidence Interval of the Difference</i>	
					<i>Lower</i>	<i>Upper</i>
Difference	5,502	74	0,000	0,49827	0,3178	0,6787

Total respondents: 75 (N)

Table 5.12: Descriptive statistics – Social Pressure (Difference)

<i>Audit firm</i>	<i>Levene's Test for Equality of Variances</i>		<i>t-test for Equality of Means</i>						
	<i>F</i>	<i>Sig.</i>	<i>T</i>	<i>df</i>	<i>Sig. (2-tailed)</i>	<i>Mean difference</i>	<i>Std. Error difference</i>	<i>95 % Confidence Interval of the difference</i>	
								<i>Lower</i>	<i>Upper</i>
Difference*	0,003	0,956	-0,306	73	0,761	-0,06123	0,20015	-0,46013	0,33767
Difference**			-0,320	43,397	0,751	-0,06123	0,19160	-0,44753	0,32508

Total respondents: 75 (N)

* Equal variances assumed

** Equal variances not assumed

Table 5.13: Independent Samples Test – Audit Firm (Difference)

Authorized	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2- tailed)	Mean difference	Std. Error difference	95 % Confidence Interval of the difference	
								Lower	Upper
Difference*	3,398	0,069	-1,550	73	0,126	-0,27929	0,18023	-0,63849	0,07991
Difference**			-1,606	70,206	0,113	-0,27929	0,17391	-0,62612	0,06754

Total respondents: 75 (N)

* Equal variances assumed

** Equal variances not assumed

Table 5.14: Independent Samples Test – Authorization (Difference)

5.3 Summarizing the Results and Analysis

To summarize the results of the empirical data; it was proven that auditors from large audit firms made significantly more conservative risk judgments than auditors from small audit firms. A further finding was that younger auditors tend to be more conservative than older counterparts, although the relationship was not significant for the aggregated risk profile. This finding was dependent on which specific audit task the auditor performs; inventory valuation showed limited evidence on that younger auditors are more conservative. Regarding the social pressure and accountability, the general conclusion was that auditors are affected by these circumstances when assessing the risks associated with the audit. Contrary to our predictions, experience did not show any significant effects on the aggregated risk profile. Neither was there any significant relationship between higher auditor ranks and more conservative risk judgments, which was predicted from the literature review. The study did not show any evidence of difference in consensus between different audit rank groups.

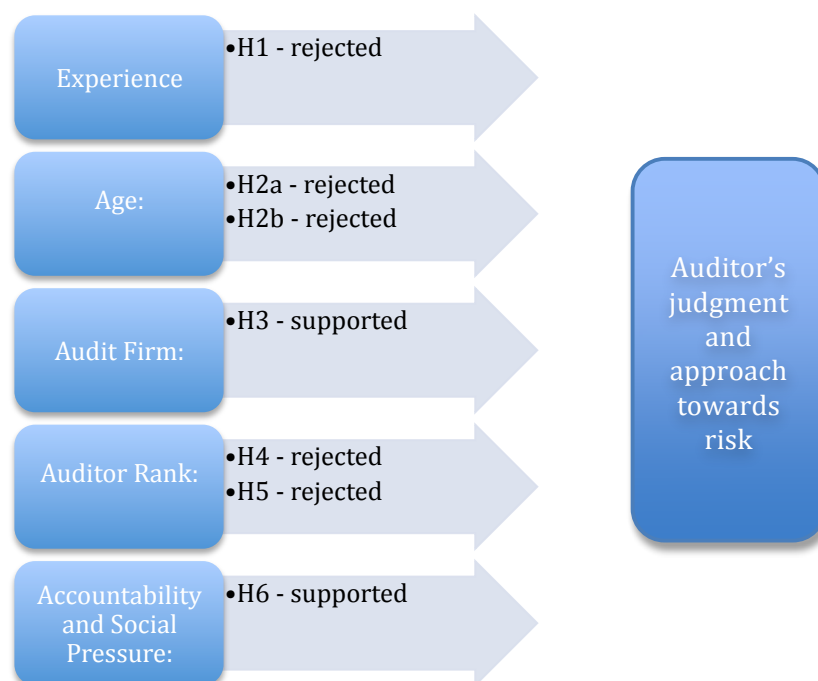


Figure 4: Summarizing the hypotheses

6. Discussion and Conclusion

This chapter contains a discussion concerning the results from the analysis of the empirical data and the theories presented in a previous chapter. The chapter continues with conclusions and suggestions for further research.

The aim with this study was to explain if certain auditor attributes affect Swedish auditors judgment and approach towards audit risk. During the process of this thesis, several auditor attributes have been discussed and reflected upon. The findings of this study will not present a complete picture of the attributes affecting auditors approach and perception towards risk. Instead it will contribute with findings on how certain auditor attributes affect audit risk judgments.

Experience is probably the most common auditor attribute discussed in behavioral research on auditing and auditors. Libby & Luft (1993) present a fundamental article where experience was placed as one of the cornerstones in the equation of auditor performance. However, the findings of this study do not support the hypothesis developed on experience; that auditor judgments will vary between experienced and less experienced auditors. No significant relationships were found between experience and risk judgments in this study. The limited support for the hypothesis on judgment and experience diverges from the findings of Abdolmohammadi & Wright (1987), which are commonly cited findings in behavioral studies on auditing. The findings of this study presented differences in the effect of experience between the different audit tasks that were tested in the surveys. The overall audit risk judgment (case scenario 3) showed to be the task where experience is most influential. Differences between specific audit tasks are in line with researches by Krogstad (1984) and Martinov-Bennie & Pflugrath (2009). Explanations of differences between this study and previous studies on experience and auditor judgment might be that the auditors regarded inventory valuation as less dependent on experience than the overall audit risk judgment. Another potential explanation of the limited support for the developed hypothesis on experience is that the inventory valuation did not represent a realistic and real audit judgment, although the survey was tested on a pilot group. In line with the findings of Krogstad et al. (1984) the less standardized audit task, the more will the influence of experience be. Since there were no relationship found between experience and risk judgment, it is possible that the participants regarded the case scenario as standardized audit tasks. Summarizing the discussion on experience and its effect on the audit judgments, it seems like experience add little value concerning risk. This finding should be valuable to know for managers at corporations since the charges between experienced and less experienced auditors differ substantially. An interpretation of this finding could be that the tasks performed by less experienced auditors in the large audit firms are scrutinized and controlled by the more experienced auditors to greater extent than researchers up to date have expected. This fact may explain why it is likely that you get almost the same judgment by experienced as less experienced auditors.

In order to find differences that were not explained by the experience of the auditor, analysis of auditor rank and risk judgments were conducted. Again no relationship was significant; it was proven that auditor rank does not explain differences in auditors approach and perception towards risk. Previous research is limited although Trotman et al. (2009) found evidence that auditor rank explain differences in auditor judgments with reference to the thesis that using auditor rank as a measure of knowledge. Analyzing these findings, the low support for auditor rank as an explanatory variable can be due to firm specific biases. Stronger support for the

hypothesis might have been proven if the study would only have been conducted on large audit firms or firms with identical hierarchical structure. The hypothesis concerning audit rank and consensus, Trotman et al. (2009) provide evidence for a relation between the attribute and the consensus in audit risk judgments. However, our collected data does not provide evidence in that direction. The managers showed a greater consensus than partners and therefore are auditor rank not explaining the influence of auditor rank on audit risk judgment in this case. Previous researches that have showed that auditor rank affect risk judgments have consisted of auditors from large audit firms. In our sample of auditors, the partner and manager groups include auditors from both large firms and very small ones. It is likely that the tasks performed by these two types of managers and partners differ substantially. It is our belief that these characteristics of this study have affected the results in the direction that no relationship was found between auditor rank groups and risk approach.

Auditors from large audit firms are more conservative than auditors from small audit firms. Results of this study support the thesis that auditors from large audit firms are more conservative. The more conservative standing from large firm auditors is probably explained by the structure of the firm and less utilization of individual judgment as Cushing & Loebbecke (1986) describes it. This is in conformity with how the audit firms were divided into two different groups in this study. Big 4 audit firms seem to have similar hierarchical structures and the other firms categorized, as large audit firms were of the size that formal structures and procedures reasonably dominate the audit process. Differences between large and small audit firms affect the quality of the audit judgments and thus have implications when the managers of corporations select auditors. Further conclusions from this empirical data might be that small corporations tend to choose small audit firms where the individual judgments by the auditor dominate. Differences in risk judgments were most significant in the case of overall audit risk judgment (case scenario 3). This relationship implies that the formal structures and procedures taking place in large audit firms are more important and used when the judgment concerns the overall risk assessment. Another interesting interpretation of these findings is that the limited relationship between inventory valuation and audit firm infers that auditors from large audit firms use more individual judgments on inventory valuation than on overall risk judgments.

From the empirical data, some evidence was provided that younger auditors are more conservative than older auditors. However, the relationship between age and audit risk judgment was not significant which makes it hard to draw any obvious conclusions from the data. The results from case scenario 3 supported the findings of Reckers & Schultz (1993) by showing that the conservative judgments were made by younger auditors. It can be argued that these findings point the importance of life experience in auditing, independent of job tenure (Johnson, 1995). It is possible that the explanation between older and younger auditors lies in the auditing and accounting standards that have been practiced by the auditor. Older auditors with more experience have been trained with different standards than younger auditors, which may have consequences for the risk approach.

The results of this study support the hypothesis regarding the effect of social pressure that the auditor in many cases is confronted with. From the empirical data it is proven that most auditors change their judgments concerning risks when there is a former relationship with the client as well as involvement in prior year's audits. Placing the results of this study in a context with previous researches on accountability and social pressure, it is in line with the findings of Wright (1988) and Tan (1991) regarding the fact that accountability and social pressure will affect the auditor's judgment. Although this study confirms the notion that

accountability and social pressure affect the judgments, it differs from previous researches in the sense that it has no intention to express an opinion as to whether the effects of social pressure and accountability will increase the quality of auditor judgments. In order to determine if accountability and social pressure will have positive or negative effects on auditor judgments, it is necessary to divide the audit work into separate audit tasks as Krogstad et al. (1984) have done. This study measured the differences in auditors' judgments of inventory valuation and studies on other judgment scenarios would probably have been given more comprehensive findings. There are some difficulties with how researchers intend to measure social pressure and the influence of client knowledge. The method used in this study has its advantages in not being time consuming as well as being quantitative from the beginning. Future potential studies should try to test the effects by observing auditors in their practicing and if possible, observe the whole audit process.

During the process with this thesis we extended the independent variables by measuring differences between authorized and non-authorized auditors risk judgments. A large share of the authorized auditors in this study can be found in the larger Swedish cities. This aspect may contribute to a potential bias of our analysis. The bias is due to the fact that many of these authorized auditors from the larger cities are auditing large corporations that probably use IFRS. IFRS imply more professional judgment by preparers and auditors than required by preparers and auditors complying with national standards. Working with more judgment based standards is presumed to result in less conservative risk approach by the auditor. Related to the above reasoning, this study supports the thesis that the authorized auditors in this sample who audits large corporations, made less conservative judgments. This explanatory factor should not be considered to be in conflict with the findings of the influence by large and small audit firms. Instead it should be regarded as a supplementing explanatory factor considered for the individual auditor.

By using the Lens Model of Social Judgment Theory, this study has confirmed the ambiguities that exist both between the ecology and the cue information but also the ambiguities between cue information and final judgment. This study has given empirical support for the explanatory capability of the selected theory by analyzing the judgments made by the auditor. At the same time, we are aware of the difficulties to test such an extensive theory on a sample of 75 auditors and with only the web survey as tool. Deeper understanding of the motives behind the recognized differences and the task environment of the auditors can be reached by combining the web survey with interviews and observations. Furthermore, we see great potential in the future to combine the Social Judgments Theory in an eclectic approach with other, more common theories used in explaining phenomenon in accounting and auditing, such as the Institutional Theory or the Positive Accounting Theory.

In sum: Auditors constitute a very homogenous profession based on the findings that there are limited differences in risk approaches between different categories of auditors. The audit profession is characterized by a high level of consensus regarding values and professional beliefs, indicating that the auditor profession constitutes a very strong professional group. Returning to the aim of this study, there are some auditor attributes that provided contradictive results compared to previous researches. Some of these findings may be explained by the fact that conditions of the audit industry have changed since the 80's and 90's in which several of former researches originate from.

6.1 Further research

This study has focused on examining a selection of factors that may influence the auditor's judgment of audit risk. However, the conditions for the audit industry in the Swedish context are probably going to change in the near future by a new legislation concerning the different levels of authorization. The legislative proposal suggests that there will be only one level of authorization but several ways to acquire the needed requirements. If this proposal is realized, further research should examine what influences and consequences the new conditions will have on the auditor's risk judgment. We are convinced that the new legislation will at least create differences in auditors experience and backgrounds. Furthermore, there is reason for future researchers to examine other potential factors such as auditors' education, training and gender explaining the risk approach of the auditors.

Appendix

Enkätundersökning

Instruktioner

Denna undersökning utgör grunden för en studie kring revisorers inställning och bedömning av revisionsrisk. Undersökningen utförs konfidentiellt och resultaten kommer endast presenteras i aggregerad form utan möjlighet att sammankoppla svar med deltagare. Enkäten består av korta case som avslutas med påståenden som ska bedömas utifrån de förutsättningar som ges. En viktig del av undersökningen är att ni som revisorer svarar ärligt och använder den kunskap och erfarenhet ni besitter. För att få så rättvisa resultat som möjligt ber vi er slutföra enkäten inom 15 minuter från det att ni startat. Denna undersökning är gjord av två masterstudenter med inriktning mot revision vid Ekonomihögskolan, Lunds Universitet.

Bakgrundsinformation

- Hur gammal är du? ____ år
- Vilken är din nuvarande titel?
Associate () Senior Associate () Assistant Manager () Manager ()
Senior Manager () Partner ()
- Vilken revisorsexamen har du?
Godkänd revisor () Auktoriserad revisor () Ej ännu avlagt revisorsexamen ()
- Hur många års erfarenhet av revision har du? ____ år
- Vilken revisionsbyrå arbetar du på? _____
- I vilken stad är ditt kontor beläget? _____
- Hur många arbetar på ditt kontor? ____ st

Case 1 – Livsmedelskedjan AB

Livsmedelskedjan AB är ett publikt bolag med ca 200 butiker i Sverige. Företaget har varit klient till er firma i sex år nu. Då påskrivande revisor nyligen gått i pension har du tagit över klienten och ska skriva under kommande revisionsberättelse. Tidigare års revisioner har resulterat i revisionsberättelser utan anmärkning. Livsmedelskedjan AB verkar i en konkurrensutsatt industri (80 % av marknaden domineras av fem stora aktörer), möjligheterna för tillväxt är begränsade och marginalerna är låga.

Risken för detta revisionsuppdrag bedöms att vara mellan låg och medel. Under förra årets revision gjordes en bedömning av interna kontroller vilken resulterade i en kontrollrisk mellan låg och medium. Revisionsrisken för detta uppdrag bedöms vara relaterade till några av Livsmedelskedjan AB:s kritiska delar i deras kärnverksamhet; såsom marknadsföring i butik och supply chain management. Berörda balanskonton för dessa processer inkluderar försäljning, lager, KSV och butikskostnader. Ni har nyligen inlett den löpande granskningen av Livsmedelskedjan AB och går nu igenom föregående års dokumentation. Livsmedelskedjan AB ändrade för ca 12 månader sedan sin värdeskapande strategi från en lågkostnadsstrategi till att fokusera på produktdifferentiering. Den nya strategin fokuserar på att erbjuda en tilltalande shoppingupplevelse genom att erbjuda kvalitetsprodukter tillsammans med en utökad servicekänsla, till ett lite högre pris. Förändringarna har hittills under året lett till en minskad försäljning på tio procent samtidigt som kostnad sålda varor och övergripande butikskostnader ökat med tre procent. Detta har påverkat företagets likviditet och leverantörsskulderna har ökat.

Uppgift:

Utifrån informationen kring strategi, likviditet, bedömd kontrollrisk och kunskap om Livsmedelskedjans verksamhet; vad är risken för väsentliga felaktigheter i utvalda poster från balans- och resultaträkning? Var vänlig fyll i ett nummer mellan 1 och 10 som motsvarar er bedömning av risken för de specifika posterna.

<i>Balansräkning</i>	<i>Saldobalans vid årets slut (MSEK)</i>	<i>Risk för väsentliga felaktigheter</i> <i>Låg (1) Medium (5) Hög (10)</i>
Likvida medel	110	
Varulager	273	
Förutbetalda kostnader	208	
Totala omsättningstillgångar	591	
Byggnader, mark, utrustning	1 023	
Förutbetalda pensionspremier	40	
Övriga tillgångar	21	
Totala Tillgångar	1 675	
Leverantörsskulder	484	
Kortfristiga skulder	59	
Totala kortfristiga skulder	543	
Långfristiga skulder	685	
Upplupna skatteskulder	37	
Aktiekapital	118	
Balanserat resultat	187	
Årets resultat	105	
Totalt Eget Kapital och Skulder	1 675	
Resultaträkning		
Försäljningsintäkter	2 885	
Kostnad sålda varor	2 034	
Bruttoresultat	851	
Butikskostnader	524	
Administrationskostnader	116	
Räntekostnader	36	
Skatt på årets resultat	70	
Årets resultat	105	

Case 2:

Denna uppgift går ut på att ni ska läsa ett antal påståenden om balansposten varulager i Livsmedelskedjan AB:s balansräkning. Posten bedöms vara väsentlig och den inneboende risken bedöms vara relativt hög. Ha i åtanke att det är ditt första år som påskrivande revisor för denna klient. Nedan vill vi att ni bedömer påståendena individuellt avseende dess påverkan för riskbedömning av posten varulager. På det sista påståendet skall ni göra en bedömning av risken för inkurans av varulager, med samtliga påståenden i beaktande.

Skala: Låg risk (1) – Hög risk (10)

<i>Var vänlig fyll i er bedömning av påståendenas inverkan vid en riskbedömning för varulager.</i>	<i>Bedömning</i>
Merparten av produkterna i varulagret har visat konstanta försäljningssiffror de tre senaste åren. Försäljningen är stark både i volym samt i kronor räknat.	
Din klient har lanserat nya uppdaterade versioner av flera produkter i det fjärde kvartalet, vilket medfört att de äldre versionerna fått mindre andel av den totala marknadsföringen.	
Omsättningshastighet för varulagret de tre föregående åren har varit konstant kring 6, medan detta år visar en minskad omsättningshastighet till 4,5.	
Under aktuellt räkenskapsår har en av Livsmedelskedjan AB:s huvudkonkurrenter lanserat en rad nya produkter med samma prestanda och egenskaper men till väsentligt lägre priser, tack vare effektivare distributionskanaler.	
Försäljningspriset för stora delar av varulagret sjönk under föregående räkenskapsår, vilket påverkat bruttomarginalerna marginellt.	
Var vänlig gör en bedömning av risken för inkurans av varulager med beaktande av samtliga påståenden.	

Case 3:

Antag att du är en del i revisionsteamet och att ni just nu bedömer poster ur balansräkningen från Komponenttillverkaren AB. Er klient tillverkar industrikomponenter och dina kollegor har bedömt den interna kontrollen som tillförlitlig. Nedan konfronteras du med ett antal påståenden om din klients nuvarande situation och utifrån dessa skall du göra en bedömning av risken för väsentliga felaktigheter i den finansiella informationen. Bedömningen görs från 1 till 10.

Skala: Låg risk (1) – Hög risk (10)

<i>Var vänlig fyll i er bedömning av risk för väsentliga felaktigheter.</i>	<i>Bedömning</i>
Intäkter som är hänförliga till pågående räkenskapsår bokfördes som intäkter för föregående år.	
Er klients anställda har mottagit material ur lagret utan att blivit debiterade för detta.	
Kundfordringar har inte blivit korrekt justerade; osäkra kundfordringar är bokförda till sitt ursprungsvärde.	
Ännu ej levererade varor har systematiskt bokförts som försäljningsintäkter.	
Under er granskning av kundfordringar upptäcker ni att er klients kreditpolicy inte följs; kunder som ännu inte betalt tidigare fakturor har kunnat göra nya beställningar.	

Case 4:

I detta case kommer ni att få information kring balansposten varulager i detaljhandelsföretaget ST AB. Ni har varit revisor för bolaget i åtta år och har god kunskap om bolagets verksamhet. Klientens företagsledning känner stor tillit inför er och det arbete er revisionsbyrå utför. Aktuell balanspost uppfyller väsentlighetskriterierna som er byrå följer. Efter att ni tagit del av påståendena, ska ni bedöma dess inverkan på er riskbedömning. Avslutningsvis ber vi er göra en sammantagen bedömning av risken för inkurant varulager hos er klient.

Skala: Låg risk (1) – Hög risk (10)

<i>Var vänlig fyll i er bedömning av hur påståendena påverkar risken för inkurans.</i>	<i>Bedömning</i>
Merparten av produkterna i varulagret har visat konstanta försäljningssiffror de tre senaste åren. Försäljningen är stark både i volym samt i kronor räknat.	
Din klient har lanserat nya uppdaterade versioner av flera produkter i det fjärde kvartalet, vilket medfört att de äldre versionerna fått mindre andel av den totala marknadsföringen.	
Omsättningshastighet för varulagret de tre föregående åren har varit konstant kring 6, medan detta år visar en minskad omsättningshastighet till 4,5.	
Under aktuellt räkenskapsår har en av Livsmedelskedjan AB:s huvudkonkurrenter lanserat en rad nya produkter med samma prestanda och egenskaper men till väsentligt lägre priser, tack vare effektivare distributionskanaler.	
Försäljningspriset för stora delar av varulagret sjönk under föregående räkenskapsår, vilket påverkat bruttomarginalerna marginellt.	
Var vänlig gör en bedömning av risken för inkurans av varulager med beaktande av samtliga påståenden.	

Questionnaire

General instructions

This survey forms the base of a study on the auditor's judgment and approach towards risk. The questionnaire is completed confidentially and the results will be presented only in aggregated format without any possibilities to connect answers to participants. Three short cases, which end with assertions about financial information, should be assessed with consideration given to the existing circumstances. It's important that you as an auditor answer honestly and utilize the professional skills and experience you possess. To get as fair results as possible, we beg you to complete the survey within maximum 15 minutes. Two master students specializing towards auditing at School of Economics and Management, Lund University constructed this survey.

Background information

- How old are you? ___ years
- What is your current title?
Associate () Senior Associate () Assistant Manager () Manager ()
Senior Manager () Partner ()
- What kind of professional examina do you possess?
First level of certified auditor () Authorized auditor () Not yet certified ()
- How many years of auditing experience do you have? ___ years
- Which firm do you work for? _____
- Where is your office located? _____
- How many employees work in your office? _____

Case 1: Livsmedelskedjan AB

Livsmedelskedjan AB is a publicly owned company with around 200 operating stores in Sweden. The company has been a client of your audit firm for six years, however the auditor in charge has recently retired and you are therefore now assigned this client. Previous years audits of the company have resulted in unqualified opinions. Livsmedelskedjan AB operate in an industry where competition is intense (80 % of the market is dominated by five major chains), the potential for growth is limited and the margins are low.

The engagement risk assessed for this year is between low and medium and during the evaluation of the control systems last year resulted in a control risk also between low and medium. The audit risk for this engagement can be attributed to financial statements accounts related to the key business processes of Livsmedelskedjan AB: in-store marketing and supply chain management. The concerned accounts include sales, inventory, cost of goods sold and store operating expenses. You have just begun your fieldwork after year-end and reviewed earlier documentation and work paper files. Livsmedelskedjan AB changed their value creating strategy from a low cost strategy to focus on product differentiation about twelve months ago. The new differentiation strategy focuses on providing an enjoyable shopping experience through offering high-quality products and a unique service feeling, at premium prices. The new differentiation strategy has affected the sales, which has decreased by ten percent in average and the cost of goods sold and operating expenses has increased by three percent in average compared to the previous year. The higher costs are results of the new strategy, which has affected the liquidity, and furthermore, the accounts payable has increased.

Assignment:

According to the information concerning strategy, liquidity, assessed control risk and business knowledge, what is the risk that the accounts below contain a material misstatement for Livsmedelskedjan AB? Please write a number between 1 and 10, which corresponds to your judgment of risk associated with the specific classes of accounts.

<i>Financial Statements</i>	<i>Balance at year-end (in million SEK)</i>	<i>Baseline Misstatement Risk Low (1) Moderate (5) High (10)</i>
Cash and equivalents	110	
Merchandise inventories	273	
Prepaid expenses	208	
Total current assets	591	
Property, plant and equipment	1 023	
Prepaid pension costs	40	
Other assets	21	
Total assets	1 675	
Accounts payable and accruals	484	
Current maturities of long-term debt	59	
Total current liabilities	543	
Long-term debt	685	
Deferred income taxes	37	
Common stock and paid-in capital	118	
Retained earnings	105	
Total liabilities and equity	1 675	
Income Statement		
Sales	2 885	
Cost of good sold	2 034	
Gross profit	851	
Store operating expense	524	
General and administration expense	116	
Interest	36	
Income taxes	70	
Net income	105	

Case 2:

In this section, you are supposed to read a number of sentences describing the inventory of Livsmedelskedjan AB. The balance sheet item is material for the financial statements and the inherent risk is assessed to be fairly high. Remember that it is your first year with this client since the previous auditor retired. After assessed the sentences independently, you shall assess the overall risk associated with inventory.

Scale: 1 = Low risk; 10 = High risk

<i>Please mark a number on the scale below that correspond to your assessment of the risk of obsolescence of inventory.</i>	<i>Judgment</i>
The sales for most of the products have been constant the last three years, both in terms of volume and SEK amounts.	
Your client has released new, updated versions of many products in the fourth quarter and your client gives less space to the older versions in the advertising.	
The inventory turnover has been constant the last four years at approximately 6, while this year's turnover has decreased to 4,5.	
During the fiscal year you are auditing, the main competitor of Livsmedelskedjan AB has launched new products offering the same features as your client's products but at substantial lower prices.	
The retail price for many of your client's products has decreased which has slightly affected the gross margin.	
Please make an assessment of the risk of obsolescence of inventory by considering all five assertions above.	

Case 3:

Assume that you are a part of the audit team and you are currently examining items from the balance sheet of your client Komponenttillverkaren AB. Your client is a manufacturing firm and your team members have assessed the internal controls of your client to be reliable. You will now be confronted with a number of assertions about your client's situation and from that; you shall make judgments of the risk of material error in the financial statements. In this case you should assess the risk from 1-10.

Scale: 1 = Low risk of material error; 10 = Material error will occur

<i>Please write the number that corresponds to your risk assessment of the assertions.</i>	<i>Judgment</i>
Revenues that should have been recorded in the next period have been recorded in the current period.	
Employees of your client have received goods from the company without being billed.	
Accounts receivable were not properly adjusted; potentially uncollectable receivables were recognized as fully collectable.	
Orders that have not been shipped have systematically been recognized as revenues.	
When you examine the accounts receivable, you realize that the credit policies of your client have not been taken into account.	

Case 4:

In the next section, we would like you to read a number of statements describing the inventory of ST AB. You have been the auditor in charge of ST AB for eight years and know their businesses very well. The manager of ST AB trusts in you and the audit work of your audit firm. After reading the sentences, you shall assess the risks associated with the inventory item.

Scale: 1 = Low risk; 10 = High risk

<i>Please mark a number on the scale below that correspond to your assessment of the risk of obsolescence for the relevant item.</i>	<i>Judgment</i>
The retail price for the products have been constant during the last three years, the sales are strong both in volume and SEK amounts.	
During the fiscal year you are auditing, the main competitor of ST Corporation launched several new products offering the same features as your client's products but at substantial lower prices.	
Your client has released new, updated versions of several products in the fourth quarter and your client gives less space to the older versions in the advertising.	
The inventory turnover has been constant the last four years at approximately 6, while this year's turnover has decreased to 4,5.	
The retail price for large parts of the inventory decreased during the last year, which has slightly affected the gross margins negatively.	
Please make an assessment of the risk of obsolescence for the relevant item by considering all five assertions above.	

References

- Abdolmohammadi M., Wright A. (1987), An Examination of the Effects of Experience and Task Complexity on Audit Judgments, *Accounting Review*, Vol. 62, pp. 1-13
- Aldersley S. (1989), Discussion of Achieved Audit Risk and the Audit Outcome Space, *Auditing*, Vol. 8, pp. 85-98
- Aranya, N. & Ferris, K. (1984), A Reexamination of Accountants' Organizational-Professional Conflict, *The Accounting Review*, Vol. 59, pp. 1-15
- Ashton, R. (1974), An experimental study of internal control judgments, *Journal of Accounting Research*, Vol. 12, pp. 143-157
- Auditing Standards Board of AICPA, Statement on Auditing Standards (SAS), US
- Barnett, T., Valentine, S. (2004), Issue contingencies and marketers' recognition of ethical issues, ethical judgments and behavioral intentions, *Journal of Business Research*, Vol. 57, pp. 338-346
- Bernard P., Breda, S. (2010), The Relationship between Demographic Variables and Ethical Decision Making of Trainee Accountants, *International Journal of Auditing*, Vol. 14, pp. 79-99
- Birnberg J., Shields M. (1984), The role of attention and memory in accounting decisions, *Accounting, Organizations and Society*, Vol. 9, pp. 365-382
- Bonner, S. (1990), Experience Effects in Auditing: The Role of Task-Specific Knowledge, *Accounting Review*, Vol. 65, pp. 72-92
- Bryman, A., Bell, E. (2005), *Företagsekonomiska forskningsmetoder* (Malmö: Liber Ekonomi)
- Buchman T., Tetlock, P. (1996), Accountability and Auditors Judgments about Contingent Events, *Journal of Business Finance & Accounting*, Vol. 23, pp. 379-399
- Cabán-García, M., Cammack, S. (2009), Audit Firm Concentration and Competition: Effect of Consolidation Since 1997, *The Journal of Theoretical Accounting Research*, Vol. 5, pp. 1-25
- Carpenter, B., Dirsmith, M., Gupta, P. (1994), Materiality judgments and audit firm culture: social behavioral and political perspectives, *Accounting, Organizations and Society*, Vol. 19, pp. 355-380
- Chung, J., Monroe, G. (2001), A Research Note on the Effects of Gender and Task Complexity on an Audit Judgment, *American Accounting Association*, Vol. 13, pp. 111-126
- Cooksey, R. (1996), The Methodology of Social Judgment Theory, *Thinking & Reasoning*, Vol. 2, pp. 141-175
- Cushing, B-E., Loebbecke J K. (1986), Comparison of Audit Methodologies of Large Accounting Firms, *Studies in Accounting Research*, Vol. 26, p
- DeZoort, T., Harrison, P., Taylor, M. (2006), Accountability and auditors materiality judgments: The effects of differential pressure strength on conservatism, variability, and effort, *Accounting, Organizations and Society*, Vol. 31, pp. 373-390
- Dhami, M., Olsson, H. (2008), Evolution of the interpersonal conflict paradigm, *Judgment and Decision Making*, Vol. 3, pp. 547-569
- Dusenbury, R., Reimers, J., Wheeler, S. (2000), The Audit Risk Model: An Empirical Test for Conditional Dependencies among Assessed Component Risks, *Auditing*, Vol. 19, pp. 105-118
- Emby, C., Gibbins, M. (1988), Good judgment in public accounting: Quality and justification, *Contemporary Accounting Research*, Vol. 4, pp. 287-314

FAR – Branschorganisationen för revisions- och rådgivningsbranschen, www.far.se, 2010-05-19

Farmer, T. (1993), Testing the Effect of Risk Attitude on Auditor Judgment Using Multiattribute Utility Theory, *Journal of Accounting, Auditing & Finance*, Vol. 8, pp. 91-111

Gibbins, M. (1984), Propositions about the Psychology of Professional Judgment in Public Accounting, *Journal of Accounting Research*, Vol. 22, pp. 103-125

Hassink, H., Bollen, L., Meuwissen, R., de Vries, M. (2009), Corporate fraud and the audit expectations gap: A study among business managers, *Journal of International Accounting, Auditing and Taxation*, Vol. 18, pp. 85-100

Hayes, R., Dassen, R., Schilder, A., Wallage, P. (2005), Principles of Auditing, *Pearson Education Limited*, Second Edition

Hogan, C., Wilkins, M. (2008), Evidence on the Audit Risk Model: Do Auditors Increase Audit Fees in the Presence of Internal Control Deficiencies?, *Contemporary Accounting Research*, Vol. 25, pp. 219-243

Houston, R., Peters, M., Pratt J. (1999), The Audit Risk Model, Business Risk and Audit-Planning Decisions, *The Accounting Review*, Vol. 74, pp. 281-298

Humphrey, C., Moizer, P. (1990), From Techniques to ideologies: An Alternative Perspective on the Audit Function, *Critical Perspectives on Accounting*, Vol. 1, pp. 217-238

Humphrey, C., Moizer, P., Turley, S. (1992), The Audit Expectations Gap – Plus Ça Change, Plus C'est La Meme Chose?, *Critical Perspectives on Accounting*, Vol. 3, pp. 137-161

International Federation of Accountants (IFAC) (2010), Handbook of international auditing, assurance, and ethics pronouncements – Part I. New York, NY: IFAC

Jiambalvo, J., Pratt, J. (1988), Group and Organizational Issues In CPA Firm Research, in Ferris, K (ed.), *Behavioral Accounting Research: a Critical Analysts*, pp. 249-280 (Columbus, OH: Century VII Publishing Company)

Johnson, E.N. (1995), Effects of information order, group assistance, and experience on auditors' sequential belief revision, *Journal of Economic Psychology*, Vol. 16, pp. 137-160

Johnson, V., Kaplan S. (1991), Experimental Evidence on the Effects of Accountability on Auditor Judgments, *Auditing*, Vol. 10, pp. 96-108

Kennedy, J. (1993), Debiasing Audit Judgment with Accountability: A Framework and Experimental Results, *Journal of Accounting Research*, Vol. 31, pp. 231-245

Krogstad, J., Ettenson, R., Shanteau, J. (1984), Context and Experience in Auditors' Materiality Judgments, *Auditing*, Vol. 4, pp. 54-74

Libby, R., Theodore, J. (1982), Accounting and Human Information Processing: Theory and Applications, *Accounting Review*, Vol. 57, pp. 451-452

Libby, R., Luft, J. (1993), Determinants of judgment performance in accounting settings: Ability, knowledge, motivation, and environment, *Accounting, Organizations and Society*, Vol. 18, pp. 425-450

Lee, T.A., Clarke, F., Dean, G. (2008), The dominant senior manager and the reasonably careful, skilful, and cautious auditor, *Critical Perspectives on Accounting*, Vol. 19, pp. 677-711

Marden, R., Brackney, K. (2009), Audit Risk and IFRS, *CPA Journal*, Vol. 79, pp. 32-37

Martinov-Bennie, N., Pflugrath, G. (2009), The Strength of an Accounting Firm's Ethical Environment and the Quality of Auditors' Judgments, *Journal of Business Ethics*, Vol. 87, pp. 237-253

Marxen, D. (1990), A Behavioral Investigation of Time Budget Preparation in a Competitive Audit Environment, *Accounting Horizons*, Vol. 4, pp. 47-58

- Messier, W., Austen, L. (2000), Inherent Risk and Control Risk Assessments: Evidence on the Effect of Pervasive and Specific Risk Factors, *Auditing*, Vol. 19, pp. 119-132
- Morris, M., Nichols, W. (1988), Consistency Exceptions: Materiality Judgments and Audit Firm Structure, *The Accounting Review*, Vol. 63:2, pp. 237-254
- Nelson, M., Libby, R., Bonner, S. (1995), Knowledge Structure and the Estimation of Conditional Probabilities in Audit Planning, *Accounting Review*, Vol. 70, pp. 27-47
- Nelson, M., Tan, H-T. (2005), Judgment and decision making research in auditing: A task, person, and interpersonal interaction perspective, *Auditing: A Journal of Practice & Theory*, Vol. 24, pp. 41-71
- O'Reilly, D., Leitch, R., Wedell, D. (2004), The Effects of Immediate Context on Auditors' Judgments of Loan Quality, *Auditing*, Vol. 23, pp. 89-106
- Pflugrath, G., Martinov-Bennie, N., Chen, L. (2007), The impact of codes of ethics and experience on auditor judgments, *Managerial Auditing Journal*, Vol. 22, pp. 566-589
- Pierce, B., Sweeney, B. (2010), The Relationship between Demographic Variables and Ethical Decision Making of Trainee Accountants, *International Journal of Auditing*, Vol. 14, pp. 79-99
- Raghunathan, B. (1991), Premature Signing-Off of Audit Procedures: An Analysis, *Accounting Horizons*, Vol. 5, pp. 71-80
- Reckers, P., Schultz J. (1993), The Effects of Fraud Signals, Evidence Order, and Group-Assisted Counsel on Independent Auditor Judgment, *Behavioral Research in Accounting*, Vol. 5, pp. 124-144
- Reckers, P., Wong-on-Wing, B. (1991), Management's Motive and Its Effect on selected Audit Decisions', *Behavioral Research in Accounting 3*, Vol. 3, pp. 66-85
- Robson, K., Humphrey, C., Khalifa, R., Jones, J. (2007), Transforming audit technologies: Business risk audit methodologies and the audit field, *Accounting, Organizations and Society*, Vol. 32, pp. 409-438
- Solomon, I., Trotman, K. (2003), Experimental judgment and decision research in auditing: the first years of AOS, *Accounting, Organizations and Society*, Vol. 28, pp. 395-412
- Saunders, M., Lewis, P., Thornhill, A. (2007) *Research Methods for Business Students* (Edinburgh, Pearson Education Limited)
- Schultz, J.J., Bierstaker, J.L., O'Donnell E. (2010), Integrating business risk into auditor judgment about the risk of material misstatement: The influence of a strategic-systems-audit approach, *Accounting, Organizations and Society*, Vol. 35, pp. 238-251
- Tan, H-T. (1995), Effects of Expectations, Prior Involvement, and Review Awareness on Memory for Audit Evidence and Judgment, *Journal of Accounting Research*, Vol. 33, pp. 113-135
- Tan, H-T. (2001), Methodological Issues in Measuring Knowledge Effects, *International Journal of Auditing*, Vol. 5, pp. 215-224
- Trotman, K. (2005), Discussion of Judgment and Decision Making Research in Auditing: A Task, Person, and Interpersonal Interaction Perspective, *Auditing: A Journal of Practice & Theory*, Vol. 24, pp. 73-87
- Trotman, K., Wright, A., Wright, S. (2009), An Examination of the Effects of Auditor Rank on Pre-Negotiation Judgments, *Auditing*, Vol. 28, pp. 191-204
- Tubbs, R. (1992), The Effect of Experience on the Auditor's Organization and Amount of Knowledge, *Accounting Review*, Vol. 67, pp. 783-801
- Wright, A. (1988), The impact of prior working papers on auditor evidential planning judgments, *Accounting, Organizations and Society*, Vol. 13, pp. 595-605