# **AUDIT QUALITY:**

# THE EFFECT OF PRIOR EXPERIENCE

# Jyväskylä University School of Business and Economics

Master's Thesis

2016

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#### **ABSTRACT**

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Title				
Audit Quality: The Effect of Prior Experience				
Subject	Type of work			
Accounting	Master's Thesis			
Time	Number of pages			
February 2016	39			

#### **Abstract**

Auditing regulation has been under constant change in the recent decades and it seems to continue to evolve. The latest European Union regulation (537/2014) and directive (2014/56) require mandatory auditor rotation. However the auditing research is not unanimous how the rotation and audit quality are related and there are still issues that have not been studied at all.

This study focuses on one of these unstudied issues by examining whether auditors' prior firm specific experience helps the auditors achieve higher quality audits when starting new engagements with previously familiar client. The theoretical framework is based on the research about the relationship between audit tenure and audit quality by Johnson et al. (2002); Geiger & Raghunandan (2002); Chen et al. 2008. In addition the analysis also takes into account other variables such as auditor and client size.

The study is conducted by creating regression models and utilizing correlation analysis. The variables used are based on a large sample of Swedish companies over a ten year period. The quality is measured indirectly using modified auditing reports and amount of abnormal accruals as proxies for audit quality. The results indicate that auditors' prior experience does in fact increase the quality of audits during the first years of new engagements. However the models' coefficients of determination are rather low and therefore further analysis on the subject might be beneficial.

### **Keywords**

Audit quality, auditing, audit tenure, going-concern opinion, modified opinion, abnormal accruals, auditor experience

### Location

Jyväskylä University School of Business and Economics

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# 1 INTRODUCTION

# 1.1 Background of the study

Efficient allocation of capital is important part of a well-functioning economy. According to Fama (1970) the market is efficient if the prices always reflect all the available information. However in reality there is often different amount of information available for different interest groups and sometimes the information might even be flawed. Because it is common that there are information asymmetries between company management and the outside interest groups, high quality financial statements and other financial reports are essential tools for ensuring the functioning of the capital market (Healy & Palepu 2001). As the agency theory indicates, asymmetrical information creates a possibility for moral hazard or a conflict of interest. Moral hazard represents situations where the agents (i.e. company management) pursue personal benefits and power instead of working for the best interests of the company. In conflict of interest the agents are working for the interests of the company but their view of the interests differs from the interests of the principal (i.e. owners).

There are ways to diminish the harms caused by agency problem but usually these methods cause additional expenses. Because of these expenses, agency costs, the agency problem or the information asymmetry cannot be fully removed and as Jensen (1993) points out, the internal corporate control systems can often be inadequate. One way of mitigating the problems is auditing. Monitoring performed by a third party can increase the quality of the financial statements (Johnson et al. 2002). Higher quality financial reporting and its verification mitigate the chance of moral hazards and increase the trust towards the company and thus help further improving the cooperation of the company and its interest groups. However the world has seen a fair share of questionable accounting methods or even outrageous accounting frauds in which before the revelation auditors had given clean opinions due to low quality auditing or auditors' intentional participation to the action.

The very nature of auditing makes it possible for these kinds of events to happen. Auditing is a process that is paid by the company but its product is used by outside parties. The product, in most cases, is just a standard piece of paper identical to any other auditor's report. Auditing is also a verification process that cannot be verified by others. With a little exaggeration it can be said that all that auditing produces is an "auditor's seal of approval" for others to blindly believe in. In reality the audit companies live and die with this trust, as seen in for example the Arthur Andersen case, so it is in their interest to preserve the reputation they have. Still there is a risk of malpractice which is the reason there is quite a lot of auditing regulation. For example there are ISA standards by IFAC and IAASB which are used mostly in the European Union as well as SAS standards by AICPA in the United States to guide the performance of auditing. In addition there are regional legislation and regulations concerning auditing.

The regulation of auditing is still a current topic since the European Union ratified new regulation (537/2014) and directive (2014/56) concerning auditing. These chances were published in the May 2014 which means they must be included into the legislations of member states by June 2016 at the latest. The new directive and regulation have several reforms to the auditing legislation but the ones highly related to this study are concerning the duration of the audit engagement. Currently the audit firm rotation is not mandatory in Finland, only the length of engagement partner's tenure is regulated. However the upcoming changes based on the EU regulation 537/2014 will introduce a mandatory firm rotation as well. According to the regulation the engagement of audit partner or audit firm, or any combination of these two, shall not exceed duration of 10 years. However the maximum duration may increase to 20 years if there is a public tendering process after the first 10 year period or even to 24 years if the entity uses joint audit. It is important to notice that these regulations affect only so called public-interest entities which mostly include listed companies, banks and insurance companies.

Similarly to the European Union's new regulations and directives, the Public Company Accounting Oversight Board (PCAOB) in the United States issued discussion paper called a concept release concerning mandatory audit firm rotation in the August 2011. Interestingly unlike the EU, it seems that the PCAOB has abandoned their plans due to large amount of objection and lack of empirical evidence that it would actually improve audit quality (AICPA website).

As Humphrey et al. (2011) point out; more regulations cannot be assumed to have a direct correlation to audit quality. Instead it is more about the quality of the regulations. Because the auditing regulation continues to develop and change, it is important that there is plenty of research available to base the decisions on. However as seen in the mandatory rotation case between the EU and the US, the existing audit research is not extensive enough to make well-reasoned decisions concerning the regulations.

# 1.2 Objective of the study

The general objective of the thesis is to participate to the audit research by verifying some previous research results from the field of auditing as well as offering some unique results about audit quality and its relationship to auditors' client-specific knowledge. There are rather a lot of studies how the quality of audit evolves with the auditor-client relationship as the auditors become more and more familiar with their clients. However there is very little information available whether the auditor's previously acquired client-specific knowledge has an effect on the audit quality as the auditor is already familiar with the client in the beginning of the engagement.

The existing research suggests that the quality of audit is on average lower during the first years of an engagement compared to the later years (see for example Johnson et al. 2002; Geiger & Raghunandan 2002). Often the explanation for the phenomenon is the auditors' lack of client-specific knowledge during the so called short tenured phase. As per this assumption, it would be reasonable to expect that auditors, who are already familiar with their new client, could get over the lower quality phase faster or even skip it completely. In other words the main objective of this study is to find out whether the quality of (short tenured) audits is higher amongst those auditors who have prior work experience with their new clients compared to those without the experience. To clarify, prior experience in this study means that the auditor has conducted audits to the same client in the past but there has been audit(s) performed by someone else between the prior and the current engagements.

The study will be conducted by quantitatively analyzing audit quality and its relationship to audit tenure and auditors' prior experience. As audit quality is not directly observable measurement, alternative methods are used. In this study there are two proxies used for audit quality: abnormal accruals and going-concern opinions. To separate normal accruals from the abnormal ones, this study uses a model by Ball and Shivakumar (2006) which is an extended version of the famous Jones (1991) model for estimating abnormal accruals. The regression analysis includes several control variables such as client size, estimated bankruptcy rate, leverage and the auditor's size.

As mentioned, this study is meant to participate to the field of auditing research by producing information that has not been studied before. Advancing the research is valuable on its own but in addition, having more research available might be useful for forming the auditing regulation and legislation. In theory the results could also be useful to the practice of auditing since it could provide information assisting in evaluation of the usefulness of client-specific knowledge. Although having an impact on the actual practice seems highly unlikely. To be able to truly participate to the auditing research, the study must be seen, which brings out the final objective of the thesis. Ultimately this thesis is meant to serve as groundwork for a future article aimed to be published in an accounting journal.

The second chapter of the thesis discusses of the basic terms and theories used in the study. It also puts together the most relevant research concerning the topic and formulates the hypotheses of the study. The third chapter is about data and methodology. It offers descriptive statistics of the data used and introduces the models used in the actual analysis. The fourth chapter displays the raw results of the statistical analysis and opens up the found results. The last chapter is a summary where it all comes together as a compact package.

## 2 LITERATURE REVIEW AND HYPOTHESES

# 2.1 Audit quality

What is audit quality? There are many different definitions but none of them has achieved universal acceptance. It can even be argued that quality itself is a concept that cannot be comprehensively defined. Probably the most used definition of audit quality is created by Linda DeAngelo. DeAngelo (1981) defines audit quality to be the market-assessed joint probability of discovering an error in the financial statements and reporting it to the stakeholders. In this definition quality requires both competence and independence from the auditor. Without adequate competence the auditor might not be able to detect the errors or irregularities and without high level of independence auditor might not be willing to report his findings truthfully. With adequate independence and competence the auditor should be able to find the material misstatements and report them thus completing the audit with high quality.



FIGURE 1 Audit Quality by DeAngelo (1981)

Audit quality can be viewed through the audit's accordance with auditing standards. There are several different standards or regulations concerning auditing. In the European Union the most commonly obeyed standards are the International Standards on Auditing also known as ISAs by the International Auditing and Assurance Standards Board (IAASB), which is an independent agent within the International Federation of Accountants (IFAC). In the United States the equivalent standards are the Statements on Auditing Standards (SAS) by American Institute of Certified Public Accountants (AICPA). These standards give detailed guidance how the audit should be performed and reported. If the audit is done in accordance with the standards, it should fulfill the objectives of the auditor and can thus be considered as an audit of high quality. The ISA 200 'Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance with International Standards on Auditing' defines the objectives of the auditor as:

"(a) To obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework; and

(b) To report on the financial statements, and communicate as required by the ISAs, in accordance with the auditor's findings." ISA 200

In other words, according to ISA 200, a high quality audit requires the auditor to be able to detect material misstatements and then report the findings truthfully which as a whole can be seen similar to DeAngelo's (1981) definition of auditor's competence and independence. However the definition of audit quality can be taken even further. As Zerni (2009) points out, there are two types of audit qualities: audit quality in fact and market perceived audit quality.

Auditing is a process that is not observable by outsiders. The product of auditing is auditor's report which can be so called clean opinion that confirms that the financial statements were done properly or it can be modified report. Usually modified reports are going-concern opinions (GCO) which tell that the auditor is uncertain whether the entity can continue its operations in the future. There are also other kinds of modified reports but the common factor in every report is that the interest groups for whom the audit is conducted cannot observe the actual process of auditing. They can only read what the auditor has reported.

Another way of looking audit quality is to link it to misreporting. If the auditor's report was not accurate then the audit quality can be considered low. The ISA 200 defines audit risk as the risk that the auditor issues an incorrect opinion when there were material errors in the financial statements. However not issuing a modified report when it would have been appropriate is not the only way to misreport. Issuing a modified report when it was not necessary is also considered as a misreport and thereby a low quality audit. As Francis (2011) and Lennox (1999) express it, auditors report accurately in two cases. These are,

if a client becomes (or remains) financially distressed after receiving a GCO or if a client does not fail after receiving a clean opinion. If the auditor does not issue a GCO and the client becomes financially distressed, it is classified as a Type 2 error or *false negative*, whereas issuing a GCO to client that does not fail is classified as a Type 1 error or *false positive*. In both cases the report can be any other modified report as well, going-concern just happens to be the most common.

As seen, there are different ways to define audit quality, but what is it besides these definitions. Francis (2004) recapitulates what is known about audit quality:

"Auditing is relative inexpensive, less than 1/10 of one percent of aggregate client sales;

Outright audit failures with material economic consequences are very infrequent;

Audit reports are informative, despite the presence of false positive and negatives;

Audit quality is positively associated with earnings quality;

Audit quality is affected by legal regimes and the incentives they create;

There is evidence of differential audit quality by Big 4 firms and industry experts, and differential audit quality across individual offices of Big 4 firms and across different legal regimes;

Academic research has had little impact on regulations and policy-making in the US, although it may have had more influence in other countries such as the United Kingdom." Francis 2004

Audit quality is not just a concept used by academics in theory. Since low quality audits can have significant impact on the markets, the central organs of auditing also tend to oversee it in practice. For example recently the PCAOB issued disciplinary orders against a partner of Grant Thornton in Japan because of a low quality audit. The auditor had failed to act on multiple known risks of material misstatements and did not properly supervise his auditing team. According to the PCAOB there were many indicators that should have alerted the auditor to the possibility of revenue enlargement. For example there were significantly high error rate in end-of-year sales cutoff tests and suspiciously large amount of material sales were reported to happen on the last day of the fiscal year. Therefore the PCAOB had the auditor temporarily suspended and she is mandated to complete education courses. (PCAOB website)

Unlike in the internal monitoring of auditing, the audit evidence is not usually available for the auditing researcher. Since the audit process is not observable and therefore the audit quality cannot be measured straightforward, some alternative methods are needed. Usually researchers use proxies for audit quality that can be measured more easily. There are plenty of different proxies used but three quite commonly used are *going-concern reports*, *amount of abnormal accruals* and *beating*.

### 2.1.1 Going-concern analysis

Going-concern is a universal accounting principle about the continuity of an entity. The assumption is that companies run their errands in a way that the operations may continue for the foreseeable future and the financial statements should be prepared on such basis. From the auditor point of view, it is one of the auditor's responsibilities to evaluate the client's ability to continue its operations. As for example the ISA 570 standard states that the auditor has to a) obtain enough audit evidence about the going concern issues, b) evaluate if there is a material risk or doubt about the entity's ability to continue its operations and finally c) determine the implications for the auditor's report. As mentioned in the previous chapter, in practice these guidelines mean that the auditor is required to modify the audit report by issuing a going concern opinion if there is doubt about the future of the client.

As the GCO is an essential and mandatory part of auditing, it can be used to analyze the quality of an audit. There are at least two ways of doing so. One is to inspect the auditors' sensitivity of issuing these modified going-concern reports instead of clean reports for financially distressed companies. For example it has been studied that office size of Big 4 companies is positively associated to the tendency to issue going-concern report indicating that larger offices have higher audit quality (Francis & Yu 2009). Another method of goingconcern analysis uses the accuracy of the issued GCOs. In this method of quality analysis the ratio of accurate and inaccurate reports the auditor has issued is in the focus. If the auditor issued a going-concern report and the company did not go bankrupt the audit is assumed to be a low quality one. Furthermore if a company goes bankrupt without the auditor having issued going-concern report beforehand the audits are yet again assumed to be low quality. Otherwise the assumption is that the audit was done properly. This method has been used for example in a study by Geiger and Rama (2006) where they found out that Big 4 companies have lower misreporting rate than smaller companies and therefore it could be generalized that the Big 4 audit companies perform higher quality audits than the smaller companies.

As this second method is based on assumptions, the result is just an estimate. There are also other kinds of facts that can be considered. As Francis (2004) says the objective of auditing is not to predict bankruptcies so basically these type 2 errors are not necessarily failures, but they are still considered as ones mostly because they create a litigation risk. It is also possible that the audit was conducted well but for example rapid changes in the markets may cause given audit report to become outdated, in which case this method would improperly indicate that there was a low quality audit. Empirical evidence suggests that a large portion of bankrupt companies do not receive a going-concern opinion before the bankruptcy. For example Vanstraelen (2002) studied Belgian companies from the time period of 1992 - 1996 and found out that a GCO was issued to only 37 percent of the bankrupt companies within a one year period before the bankruptcy. Using GCOs as a surrogate for audit quality might not

be a perfect measurement but still these methods are one of the most used ones and their results are usually considered trustworthy.

## 2.1.2 Abnormal accruals analysis

"Accounting accruals are managers' subjective estimates of future outcomes and cannot, by definition, be objectively verified by auditors prior to occurrence." Francis & Krishnan 1999

Another way to measure audit quality is to use abnormal accruals as a proxy for quality. Accruals are estimates of future cash outcomes. In this study accruals are defined as the change in current assets (minus the change in cash and cash equivalents) from which has been subtracted the change in current liabilities (minus the change in short-term debt and the current portion of long-term debt). Whereas these accounts are essential in order for the financial statements to provide a fair view of the entity's economic picture, they are also problematic because as estimates they can be quite inaccurate. Because the accruals are produced by the company management and only affected by the audit process, they can be used to manipulate the financial statements. According to Ball and Shivakumar (2006) it is common for studies to separate accruals into nondiscretionary and discretionary (aka normal and abnormal) accruals so that it can be estimated to which extent these accruals would have been there without earnings manipulation by managers. The base presumption of this audit quality analysis is that if there is high amount of abnormal accruals then there is higher potential for some sort of financial statement manipulation. If an auditor has given clean report for a company with high amount of these accruals then the audit's quality was more likely lower than standards require.

There are different models for separating abnormal accruals from the normal ones. The most well-known model for estimating the abnormal portion of accruals is the one introduced by Jones (1991). However, the Jones (1991) model has been proven to cause estimation errors, usually so that it understates the earnings manipulation (Dechow et al. 1995). In order to mitigate this short-coming, the empirical approach in the current study adopts the Ball and Shiva-kumar (2006) suggested extension of the Jones (1991) model by taking into account the asymmetrical recognition of gains and losses in time. Formally, the empirical model based on Jones (1991), and as extended by Ball and Shiva-kumar (2006), can be written as follows:

$$TACC_t = \alpha_0 + \alpha_1 X_t + \alpha_2 OCF_t + \alpha_3 DLOSS_t + \alpha_4 DLOSS_t * OCF_t + \varepsilon_t$$

Where TACC<sub>t</sub> means the total accruals of the company i in year t.  $X_t$  is in this case the Jones model for estimating abnormal accruals, which is described below. OCF<sub>t</sub> is the cash flow from operations and DLOSS<sub>t</sub> is a dummy variable that is 1 in the cases where OCF<sub>t</sub> is negative.  $\varepsilon_t$  is the error term which when combined with the error term of the Jones model, represents the amount of ab-

normal accruals. The Jones model in the form it is used by Ball and Shivakumar (2006) is:

$$TACC_t = \alpha_0 + \alpha_1 \Delta SALES_t + \alpha_2 PPE_t + \varepsilon_t$$

Where  $\Delta SALES_t$  is the change in sales between years t and t-1 from which has been removed the effect of change in accounts receivable from year t-1 to t. PPE<sub>t</sub> means the gross property, plant, and equipment. By combining these two formulas together and scaling the variables by lagged total assets in years t and t-1 in order to reduce heteroskedasticity and make observations from differentially sized companies more comparable among others, the final equation for estimation of abnormal accruals used in this paper shapes into form of:

TACC<sub>t</sub> / A<sub>t-1</sub> = 
$$\alpha_0$$
 +  $\alpha_1$ ( $\Delta$ SALES<sub>t</sub> / A<sub>t-1</sub>) +  $\alpha_2$ (PPE<sub>t</sub> / A<sub>t-1</sub>) +  $\alpha_3$ (OCF<sub>t</sub> / A<sub>t-1</sub>) +  $\alpha_4$ DLOSS<sub>t</sub> +  $\alpha_5$ DLOSS<sub>t</sub> \* (OCF<sub>t</sub> / A<sub>t-1</sub>) +  $\epsilon_t$ 

In this formula all the terms are the same as before with the addition of  $A_{t-1}$  which is the lagged total assets used to standardize the variables. Finally the abnormal portion of the total accruals is separated by using the residual from the model as the amount of abnormal accruals. In other words the variables above estimate the normal accruals of the companies. The amount that cannot be explained by the variables is left in the error term which in result is considered as the abnormal accruals. These abnormal accruals are referred as a variable ACC later in the study.

## 2.1.3 Beating analysis

Many companies have incentives for their management. Usually there are some key earning targets or the incentives are related to the stock price. It has been studied that missing the benchmarks by market analysts can have a significant effect on CEO's cash bonuses (Matsunaga & Park 2001). Therefore it is reasonable to expect that in a case where these incentives have just barely been beaten it is more likely that there has been earnings manipulation in the financial statements. When the earnings targets have been beaten by a small margin and the auditor has issued a clean report it can be assumed that the audit quality was low. Of course it is not the case in every occasion but when analyzing large amount of data it can be used as a proxy indicator.

The studies have found out that managers tend to avoid reporting losses, small decreases in earning are much rarer than small increases in earning and that it is unusually common for companies to meet or beat the benchmarks (Carey & Simnett 2006). As there are different benchmarks or goals for the company management, the beating analysis can also be conducted using different indicators of earnings manipulation. The essence of this method is that if the audit quality is high, there should not be these anomalies in the statistics.

#### 2.2 Audit tenure

Detecting and reporting material misstatements and thus conducting a high quality audit requires quite a lot of knowledge from the auditor. This required knowledge can be divided into categories: *general knowledge* and *client-specific knowledge*. General knowledge includes the essential generic know-how of auditing as well as more advanced knowledge for example industry knowledge. It is required for a successful high quality auditing and it is usually obtained with education and working experience. Whereas general knowledge can be seen as a requirement for auditors, client-specific knowledge is more like an advantage that can further assist the pursuit of higher quality. It is possible to some extent to replace client-specific knowledge by allocating more resources to the initial audits, but according to Arrunada and Paz-Ares (1997) there are assets for which time is a basic input and thus cannot be fully replaced by initial investment.

The only way to get client-specific knowledge is having an auditor-client relationship and that is the reason audit tenure is a key variable in this study. Audit tenure can mean either the time audit firm or audit engagement partner has continuously audited the client company. Although these are different matters they act quite similarly. Both of them are important factors to acknowledge because they have been proven to have an effect on audit quality by several researches. Most researchers agree that the audit quality is lower during the first years of new engagement (Johnson et al. 2002; Geiger & Raghunandan 2002; Chen et al. 2008). This can be explained by the lack of client-specific knowledge in the early years of an audit which has been somewhat a problem in auditing for decades (see St. Pierre & Anderson 1984). This can be seen as a competence issue but behind the phenomenon might also be factors such as lowballing and retaining a paying client. One of the objects of this research is to participate to the ongoing debate about the relationship between audit tenure and audit quality by confirm these previous findings with the data used in this one.

### *H1*: Short audit tenure is negatively associated with audit quality.

According to researchers as the time passes and auditor becomes familiar with the client company and its operations the quality of audits is becoming higher on average (see for example Johnson et al. 2002). This phase is known as medium tenured auditing and depending on researcher it is defined to include roughly the years 4-8 of an audit engagement. After this phase the audits are usually classified as long tenure audits. There is quite an active debate occurring in the worlds of academy and legislation about the tenure of audits, from which fine examples are the EU directives and regulations and the PCAOB plans concerning the mandatory rotation of audit firms mentioned earlier. The research shows mixed results how the quality of audit behaves after the medium tenured phase. The assumption of high quality continuing is based on the

same factors that increase quality in the medium tenure range. The auditor's client-specific knowledge and familiarity can help to understand the client company better and thus long tenure can be seen as a quality-increasing factor. However there are counter arguments. It is said that long enough tenure impairs the independence and professional skepticism of the auditor, resulting lower quality audits.

For example Geiger and Raghunandan (2002) studied companies that were entering bankruptcy using going-concern analysis and could not find evidence to show increased audit reporting failure rate for long audit tenures. Myers, Myers and Omer (2003) used abnormal accruals to measure earnings quality and found out that in their sample of over 40 000 companies the longer tenure was "associated with less dispersion in the distributions of Discretionary Accruals" indicating better audit quality. Chen, Lin and Lin (2008) studied both audit partner tenure and audit firm tenure and their effect on quality. Using accruals as a proxy they could not find evidence that neither of the tenures would affect negatively on the quality as the time elapses. On the other hand for example Davis, Soo and Trompeter (2009) discovered using beating analysis that during pre-SOX time frame the quality of audits decreased with long audit tenure. Using going-concern reports, accruals and beating analyses Carey and Simnett (2006) perceived that there were no association with long tenure and low audit quality when measuring quality using abnormal accruals but goingconcern and beating analyses showed results which indicate lower quality as the tenure increases.

Based on these studies it can be assumed that the client-specific knowledge helps the auditors to perform high quality audits. Most clearly it can be seen in the medium tenured auditor-client relationships. Normally it takes a few years to gain this knowledge. But if the auditor would have already gained client-specific knowledge in the past and a new engagement with the same client begins, it would be reasonable to expect that the auditor would be able to reach the medium tenured phase sooner or even skip the so called short tenured phase entirely. Therefore previous client-specific experience should increase the audit quality in the early years of the engagement. This is the main research hypothesis of this study.

*H*2: Audit partners' prior client experience mitigates the anticipated negative association between short audit tenure and audit quality.

In addition to research about the audit tenure itself, there are also studies concerning the effects of mandatory audit rotation. For example Lennox, Wu and Zhang (2014) used audit adjustments as a proxy for audit quality and found out an increase in quality in both last audit before and the first one after the mandatory rotation. The logic behind the findings can be explained by assuming that the departing auditor wants to protect himself and the audit company he is representing by making sure there are no significant mistakes in the financial statements before handing over the client to the next auditor. As for the new

auditor, the quality increase is explained by Lennox, Wu and Zhang (2014) by the fresh perspective the new auditor is bringing to the audit process. On the other hand Kwon, Lim and Simnett (2014) studied how the mandatory audit firm rotation affects audit quality and audit fees. In the study they used abnormal accruals as a proxy for audit quality but they could not observe any significant effect from the mandatory rotation on the audit quality. However the audit fees greatly increased in the cases of the mandatory rotation compared to similar cases in the pre-regulation period.

To summarize the relationship between audit tenure and audit quality is somewhat mixed, but one could say that on average the first roughly three years of a new engagement the audit quality is lower because of the lack of client-specific knowledge. During the time frame of roughly 4-8 years the quality is considered to be high. When moving to 9+ years there are no congruent results how the quality behaves. It could remain high due to specific knowledge or start to diminish due to auditor's familiarity with the client.

### 2.3 Audit firm size and client size

When talking about audit firms, they are usually divided into two groups. The four largest companies are called Big 4 auditors and the rest fall into group called non-Big 4 auditors or smaller auditors. The division can be justified by the market shares of the four biggest audit companies. Of course it varies between different markets but for example in Sweden where the data of this study is from, the Big 4 companies have almost 90 percent market share (Zerni 2012). The latter group is highly heterogeneous since it includes everything from international audit firms such as Grant Thornton to one-man audit firms.

In the auditing research the audit quality of the Big 4 companies is usually considered superior to the rest. DeAngelo (1981) reasons that the larger size of an audit firm makes the effect of a single client to the auditor's revenue smaller thus reducing the incentives for giving up their independence. In a smaller audit company one single client can generate most of the revenue. In such case the audit company cannot afford to lose the client and thus is not as independent. Another reason for higher quality might be the experience. As the Big 4 companies have more employees and they are often more specialized within auditing field, the Big 4 companies have more in-house knowledge and the employees have more peers with whom to consult. It is also said that the Big 4 companies have their reputation to protect and way more to lose. As seen in the Arthur Andersen and Enron case, even the biggest of companies can fall when they lose their reputation and the market's trust.

There is also empirical evidence supporting these statements. Kim, Chung and Firth (2003) found out that the big audit firms were more effective in monitoring income-increasing accruals. In addition the abnormal accruals of the clients of Big 4 companies are on average lower indicating less earnings management and higher audit quality (Becker et al. 1998 & Francis et al. 1999). Of

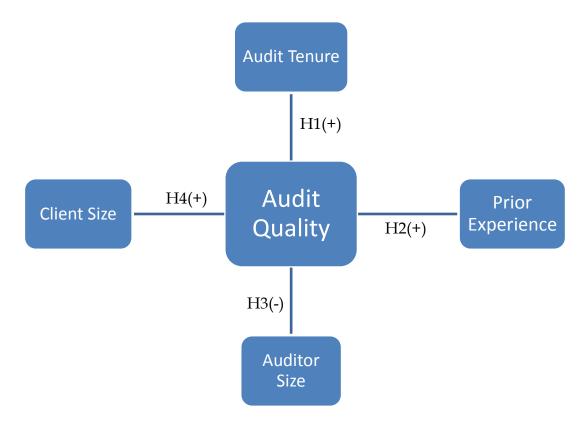
course the findings can be biased because of a possible endogenous problem meaning that the clients of the Big 4 companies might be more financially stable and less tempted to attempt any earnings management (Lawrence et al. 2011). When measuring quality with the auditors' propensity to issue going-concern opinions, Carey and Simnett (2006) found out that the non-Big 4 companies are more impaired with long tenure than the Big 4 companies.

Based on these findings and the fact that the Big 4 audit companies have the potential and the incentives to pursuit the highest quality, it is reasonable to expect that they would not be affected so much by the lack of client-specific knowledge compared to smaller auditing entities. However the data used in this study does not include the information about the audit company but there is a variable about the auditors' clientele size. Similarly to Big 4 companies, it can be assumed that larger clientele acts as an incentive to protect auditors' reputation and being able to manage large client pools requires more resources and in-house knowledge compared to smaller clientele. Therefore:

*H*3: The association of H2 is more pronounced among the audits performed by auditors with small clientele compared to the auditors with large combined client size.

As noted, the auditing process might be affected by the size of the audit company but the whole auditing process differs greatly depending on the client company. Whereas small clients can be audited rather quickly by just one auditor, larger often publicly listed companies require a whole team of auditors and plenty of time for the auditor to become confident there are no material misstatements in the financial statements. Getting to know the client company and thus gaining the client-specific knowledge is most likely much slower and time consuming process when the client is a large company. Based on this, it can be argued that when auditing a big entity, previously obtained client-specific knowledge could have larger impact on auditing process. Hence:

*H*4: The association of H2 is more pronounced among larger audited entities.



### FIGURE 2 Hypotheses

Figure 2 summarizes the hypotheses and their expected effect on audit quality. The hypotheses H1 and H2 are assumed to have a positive effect on the audit quality whereas the H3 and H4 are expected to be associated to the effectiveness of prior experience. The auditor clientele size which is the main variable in H3 is expected to have negative correlation to the effectiveness of prior experience. This should not be mixed with the overall effect of the auditor size as it has been proven to be a quality increasing factor as mentioned earlier in this chapter. In this study, the main focus is on the prior experience and how it is affected by other variables, such as the auditors' size. Whereas the auditors' size should have a negative effect on the H2, the size of the client studied in H4 is assumed to have a positive relationship to the effectiveness of prior experience.

# 3 METHODOLOGY AND DATA

# 3.1 Methodology

The field of auditing is rather vast and therefore auditing research uses a wide range of methods to bring out new information about auditing. Even audit quality can be studied as a perceived quality throughout interviews and other qualitative methods. Often, as also in this case, it is studied using quantitative approach by creating regression models to explain quality. As mentioned before, quality itself cannot be measured. Instead different proxies for quality are used in the auditing research. Probably the most common ones being modified opinions and abnormal accruals.

Correlation analysis and regression analysis are probably one of the most used statistical techniques (Sharma 2005; Montgomery et al. 2012). Quantitative auditing research is not an exception as those methods are rather commonly used there as well. The correlation analysis measures the degree of relationship between variables by presenting a single figure, called correlation coefficient, which summarizes the relationship (Sharma 2005). The coefficient can be a great tool to find out existing links between the variables, but it does not always mean there is a cause-effect relationship. Regression analysis is partially similar to the correlation analysis. It also investigates the relationship between variables, but the regression takes it one step further by creating a model which can be used to predict the amount of changes in variables. Both of these statistical techniques are useful when trying to explain phenomena from a large real world data. In this study both the going-concern analysis and the abnormal accruals analysis are based on regression whereas correlations are used to examine the variables in a more general way.

### 3.1.1 Going-concern analysis

In the going-concern analysis the focus is on the financially distressed companies so the sample of this section is including only companies in a financial dis-

tress. As in DeFond et al. (2002) and Carey & Simnett (2006) the distressed companies are defined as those which have negative earnings or operating cash flows during the fiscal year. The goal of this analysis is to estimate auditor's probability of issuing a going-concern opinion instead of a clean auditor's report using a logit model. For this analysis the going-concern opinion is defined as the dependent variable.

OPINION = 
$$\beta_0$$
 +  $\beta_1$ EXP +  $\beta_2$ TENURE +  $\beta_3$ TENURE2 +  $\beta_4$ SIZE +  $\beta_5$ LEV +  $\beta_6$ BIG +  $\beta_7$ PBANK +  $\epsilon$ 

Where:

Dependent Variable:

OPINION = 1 if a modified going-concern opinion was issued, otherwise 0

**Experimental Variable:** 

EXP = 1 if the auditor has prior experience on the client, otherwise 0

**Control Variables:** 

TENURE = the number of years the audit engagement has continued TENURE2 = 1 if the audit engagement has lasted 2 years or less, otherwise 0

SIZE = natural logarithm of the total assets of the client

LEV = liabilities divided by total assets

BIG = natural logarithm of the combined assets of the clientele

PBANK = probability of bankruptcy by credit rating agencies

There are two variables for tenure to further illustrate the relationship of tenure and quality. TENURE2 is used to see if the quality of audits is lower during the first two years of the audit engagement as the audit literature assumes whereas TENURE measures how the length of the engagement as a whole affects the audit quality. These variables are useful for more specific analysis of how the prior experience might affect but they also answer to the secondary research question of this paper. SIZE is a control variable because larger companies tend to have smaller chance of bankruptcy and on the contrary LEV is included because higher leverage increases risk of bankruptcy. BIG is there to measure differences between large and small audit companies. PBANK is the probability of bankruptcy evaluated by credit rating agencies.

## 3.1.2 Abnormal accruals analysis

As mentioned in the chapter 2.1.2 the amount of abnormal accruals can be used as a proxy for audit quality as a high quality audit ought to reduce vague re-

porting decisions. In this study a model by Ball and Shivakumar (2006) is used to separate the abnormal accruals from the total amount of accruals. The sample of this analysis is not limited to only the distressed companies. It includes all the companies with necessary data available. However the data used did not include accruals for the majority of companies and therefore rather large portion of the data was left outside of this analysis. Nevertheless the sample size is still roughly one million observations, which is more than plenty for the analysis to be valid. The following regression model is used:

ACC = 
$$\beta_0$$
 +  $\beta_1$ EXP +  $\beta_2$ TENURE +  $\beta_3$ TENURE2 +  $\beta_4$ SIZE +  $\beta_5$ LEV +  $\beta_6$ BIG +  $\beta_7$ PBANK +  $\beta_8$ OPINION +  $\epsilon$ 

Where:

Dependent variable:

ACC = the scaled amount of abnormal accruals (from the error term of the modified Jones model)

Experimental Variable:

EXP = 1 if the auditor has prior experience on the client, otherwise 0

**Control Variables:** 

TENURE = the number of years the audit engagement has continued TENURE2 = 1 if the audit engagement has lasted 2 years or less, otherwise

SIZE = natural logarithm of the total assets of the client

LEV = liabilities divided by total assets

BIG = natural logarithm of the combined assets of the clientele

PBANK = probability of bankruptcy by credit rating agencies

OPINION = 1 if a modified going-concern opinion was issued, otherwise 0

The reasons behind these variables are mostly the same as in the going-concern analysis. In this case the SIZE control variable can be explained by the assumed positive relation between client size and abnormal accruals (Becker et al. 1998). Another difference is that OPINION is now as a control variable to see if the companies which have received a modified auditor's report about going-concern issues have larger amount of abnormal accruals.

#### 3.2 Data

To be able to find any statistically significant differences in the audit quality there needs to be large enough sample of companies to inspect. In this research the sample of companies is from a Swedish data that includes information from all the limited liability companies in Sweden. The data has been collected by Mikko Zerni and it includes a variety of variables from the companies over the period of 2001-2012. The initial data contains 3.2 million firm-year observations including key financial information from earnings statement and balance sheet, company size in different measures and plenty of other data. Crucial for this study is that there is information about the auditor and for the going-concern analysis there is also data available about the issued opinions and financial distress. So overall the data provides all required information for analyzing audit quality using proxies like issued going-concern reports and abnormal accruals. However there is not data about companies' key earnings targets so beating analysis cannot be performed using this data.

IBM SPSS Statistics program was used to compute the variables and analyze the results.

# 3.2.1 Descriptive statistics

After removing outlier observations the actual sample used in the study contains roughly 3.1 million observations. Further information about the variables used in the analysis is represented in table 1. It shows the total number of observations for each variable as well as their minimum and maximum value, mean and standard deviation.

**TABLE 1 Descriptive Statistics** 

	N	Minimum	Maximum	Mean	Std. Deviation
OPINION	3128172	0	1	,14	,343
ACC	990030	-2,00	2,00	-,0733	,50152
EXP	3128172	,00	1,00	,0029	,05377
TENURE	3128065	1	22	6,50	4,865
TENURE2	3128065	,00	1,00	,2464	,43091
LEV	3127556	,00	99,89	,7097	1,75725
SIZE	3128172	9,21	26,81	14,2627	1,75628
BIG	3128172	9,21	27,00	20,1736	1,34697
PBANK	2770614	,01	99,90	2,0780	6,18767

As seen in the table, the total number of observations differs between variables. This is because the study includes two different regression analyses and using only companies with all variables available would have unnecessarily cropped most of the sample from the main analysis. The variable ACC which indicates the scaled amount of the abnormal accruals ranges between -2.00 and 2.00 only because the rare cases where the variable had higher or lower values were con-

sidered outliers. Also the values for leverage were limited to be between 0 and 100 to eliminate negative and absurdly high leverages.

The data shows that the cases where auditors' have at least two separate engagements with a client company (EXP) are actually rather infrequent. Overall only about 0.3 percent of the audits performed are these second engagement audits. Overall 14 percent of the firms received a modified opinion. It can also be interpret that the negative mean of ACC indicates that it is slightly more common to use abnormal accruals to minimize taxation rather than inflating the firm's profit.

# 3.2.2 Correlation and collinearity

The correlations between the variables used in this study are described in table 2. However the study utilizes dummy variables which by nature are not ideal for (Pearson) correlation analysis, therefore OPINION, EXP and TENURE2 should be treated with caution. Those variables excluded, the correlations in the matrix are classified as very weak or weak. Significances are almost without exceptions at excellent level which is due to high degree of freedom.

One of the highest correlations in the matrix is between the modified opinion (OPINION) and the probability of bankruptcy (PBANK) which is a promising sign for the study. They are both risk assessments of a company by a third party. The positive correlation corroborates the presumption that modified opinions indicate audit quality. Another interesting notion about the correlations is the relationship between ACC and the variables which can represent financial distress. Both the leverage (LEV) and probability of bankruptcy have negative correlation with the amount of abnormal accruals. This suggests that tax planning might be more important than polishing financial reports even for the financially distressed companies. The most significant correlation is between the variables TENURE and TENURE2, which is explained by the fact that TENURE2 is derived directly from the variable TENURE. Other than that the correlation matrix provides such information as expected. For example the probability of bankruptcy seems to decrease as the firm size increases whereas it increases simultaneously with leverage. Overall it can be concluded that the correlations between variables act mostly as expected and they are statistically significant but mostly really weak.

TABLE 2 Correlations

Correlations

				2010	correlations					
		OPINION	ACC	EXP	TENURE	TENURE2	LEV	SIZE	BIG	PBANK
OPINION	Pearson Correlation	Ļ	-,071	,002	950'-		191	-,204	-,074	,356
	Sig. (2-tailed)		000	,000	000	000	000	000	000	000'
	N	3128172	990030	3128172	3128065	3128065	3127556	3128172	3128172	2770614
ACC	Pearson Correlation	-,071	-	900'-	,020	-,013	-,132	-,107	-,021	680'-
	Sig. (2-tailed)	000'		000'	000'	000'	000'	000	000'	000'
	N	990030	990030	990030	990001	990001	989993	990030	990030	958586
EXP	Pearson Correlation	,000 <sub>,</sub>	.,,900'-	1	-,032	,028	,000	,013	<sub></sub> 600'	E00'-
	Sig. (2-tailed)	,000	000'		000'	000'	000'	000'	000'	000'
	z	3128172	990030	3128172	3128065	3128065	3127556	3128172	3128172	2770614
TENURE	Pearson Correlation	<u>"9</u> 50'-	,020,	-,032	-	-,582	-,012	690'	,071	-,122**
	Sig. (2-tailed)	000'	000	000'		000	000'	000	000	000'
	z	3128065	990001	3128065	3128065	3128065	3127449	3128065	3128065	2770518
TENURE2	Pearson Correlation	"££0'	-,013	,028	-,582	-	,000	990'-	-,064	,106
	Sig. (2-tailed)	000'	000	000'	000'		,044	000	000'	000'
	z	3128065	990001	3128065	3128065	3128065	3127449	3128065	3128065	2770518
LEV	Pearson Correlation	,191	-,132	005	-,012	,100 <sup>,</sup>	-	060'-	-,013	,163
	Sig. (2-tailed)	000'	000	000'	000'	,044		000'	000'	000'
	z	3127556	989993	3127556	3127449	3127449	3127556	3127556	3127556	2770059
SIZE	Pearson Correlation	-,204	-,107	,013	<u>"</u> 690'	990'-	060'-	-	,245	620'-
	Sig. (2-tailed)	000	000	000'	000'	000	000'		000'	000'
	z	3128172	990030	3128172	3128065	3128065	3127556	3128172	3128172	2770614
BIG	Pearson Correlation	-,074	-,021	600 <sup>'</sup>	,071	-,064	-,013	,245	-	050'-
	Sig. (2-tailed)	000'	000	000'	000'	000'	000'	000		000'
	z	3128172	990030	3128172	3128065	3128065	3127556	3128172	3128172	2770614
PBANK	Pearson Correlation	,356	680'-		-,122	.106	,163	620'-	050'-	-
	Sig. (2-tailed)	000'	000	000'	000'	000	000	000'	000'	
	z	2770614	928586	2770614	2770518	2770518	2770059	2770614	2770614	2770614

\*\*. Correlation is significant at the 0.01 level (2-tailed).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

Model		Collinearity	Statistics
		Tolerance	VIF
E	XP	,999	1,001
TE	ENURE	,650	1,540
TE	ENURE2	,654	1,530
LE	EV	,975	1,026
SI	IZE	,933	1,072
ВІ	IG	,930	1,076
PI	BANK	,955	1,047

a. Dependent Variable: OPINION

TABLE 4 Collinearity statistics with ACC as the dependent variable

Model Collinearity Statist		Statistics
	Tolerance	VIF
EXP	,997	1,003
TENURE	,721	1,387
TENURE2	,733	1,364
LEV	,884	1,131
SIZE	,865	1,156
BIG	,881	1,135
PBANK	,810	1,234
OPINION	,819	1,222

a. Dependent Variable: ACC

Collinearity, or multicollinearity, measures the degree in which variables in a regression are predicted by other variables. Collinearity can cause errors in the estimation of variables' impact on the dependent variable. The unit of measure of collinearity is variance inflation factor (VIF), or its multiplicative inverse called tolerance. Usually there is considered to be a collinearity problem if variables achieve tolerances less than 0.2 and therefore VIFs more than 5.0.

Tables 3 and 4 display the collinearity statistics of the variables used. The table 3 is for the regression analysis of variable OPINION whereas the table 4 uses ACC as the dependent variable. Originally there were two more variables describing tenure but having altogether four similar variables caused multicollinearity problem by raising VIF significantly over the critical level of 5.0. There-

b. Selecting only cases for which ocf\_neg = 1

fore variables representing medium and long tenures were excluded from the study and thus acceptable levels of VIF were accomplished across the board. Since TENURE2 is based on TENURE, their collinearity statistics are slightly worse compared to the rest of the variables.

# 4 EMPIRICAL RESULTS

This chapter represents the regression analyses and the actual results of the study. Table 5 shows the results of a regression analysis performed as mentioned in the chapter 3.1. The variable OPINION acts as the dependent variable amongst a sample of financially distressed companies. The results indicate that short audit tenure has a very slight negative effect to the tendency to issue a modified opinion. As the companies are distressed this can be seen as an indicator of lower audit quality. When inspecting the whole tenure as a continuous variable the effect seems to diminish. The variable EXP seems to have a positive impact on audit quality. However auditor's clientele size seems to have rather small impact on the auditing outcome. All the variables are statistically significant at the 0.01 level although as seen in table 6 the model has only 0.15 coefficient of determination (R Square) meaning that the variables only explain 15 percent of the changes in OPINION.

TABLE 5 Regression; OPINION

Model	Unstandardize	ed Coefficients	Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	,534	,004		129,133	,000
EXP	,020	,005	,003	3,864	,000
TENURE	-,002	,000	-,025	-25,173	,000
TENURE2	-,006	,001	-,007	-7,571	,000
LEV	,036	,000	,124	154,807	,000
SIZE	-,030	,000	-,149	-182,239	,000
BIG	-,002	,000	-,007	-8,457	,000
PBANK	,016	,000	,307	380,265	,000

a. Dependent Variable: OPINION

b. Selecting only cases for which ocf\_neg = 1

TABLE 6	Coefficient of	of determination f	or OPINION analy	sis

Model	R	R Square	Adjusted R	Std. Error of the
	cfo_neg = 1		Square	Estimate
	(Selected)			
	,391ª	,153	,153	,305

a. Predictors: (Constant), PBANK, EXP, BIG, TENURE2, LEV, SIZE, TEN-URE

The results of regression for abnormal accruals analysis are in table 7. As mentioned, high quality auditing should reduce vague reporting decisions and therefore decrease the amount of abnormal accruals. Thus variables that have negative coefficients are considered to have a positive impact in audit quality.

Abnormal accruals analysis did not yield highly significant results. The two most important variables, EXP and TENURE2, did not achieve statistical significance in t-test and furthermore the tenure variables seem to have nearly zero impact to the amount of accruals. The only notable result seems to be that the clients' leverage tends to decrease the amount of the abnormal accruals thus supporting the claim based on the correlation analysis that the abnormal accruals are used more for tax planning than polishing the financial reports. Furthermore table 8 shows that the adjusted R square of this model is only 0.038 meaning that the model does not explain changes in accruals well at all. The low coefficients of determination in both cases can be explained by the nature of audit quality. The quality consists of wide assortment of factors and thus models with only a handful of variables seem to only cover a part of it.

TABLE 7 Regression; ACC

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	,521	,009		60,365	,000
EXP	-,017	,009	-,002	-1,987	,047
TENURE	,001	,000	,009	7,390	,000
TENURE2	,002	,002	,001	1,151	,250
LEV	-,169	,001	-,121	-113,760	,000
SIZE	-,041	,000	-,122	-113,616	,000
BIG	,007	,000	,018	16,519	,000
PBANK	-,004	,000	-,048	-43,197	,000
OPINION	-,051	,002	-,031	-28,270	,000

a. Dependent Variable: ACC

TABLE 8 Coefficient of determination for ACC analysis

Model	R	R Square	Adjusted R	Std. Error of the
			Square	Estimate
	,195 <sup>a</sup>	,038	,038	,48669

a. Predictors: (Constant), OPINION, EXP, BIG, TENURE2, LEV, SIZE, PBANK, TENURE

One of the objectives of this study was to participate to the audit tenure research by confirming previous findings using a new set of data. The common assumption is that the audit quality is weaker during the first years of an engagement (e.g. Johnson et al. 2002; Geiger & Raghunandan 2002; Chen et al. 2008). Therefore the hypothesis H1 is *short audit tenure is negatively associated with audit quality*. The empirical results of modified opinion analysis seem to support these findings, though only very slightly. Abnormal accruals analysis on the other hand yielded no results.

The main hypothesis of the thesis is how auditors' prior firm-specific knowledge affects the perceived audit quality. The studies indicate that after becoming familiar with the client company, the quality of audits tends to increase (see for example Johnson et al. 2002). The presumption of this study was that by having prior experience, auditors could achieve this so called medium tenured phase sooner and therefore H2 takes a form of *audit partners' prior client experience mitigates the anticipated negative association between short audit tenure and audit quality.* The going-concern analysis indicates that EXP variable has a positive relationship with the tendency to issue a modified opinion and thus prior experience seems to increase audit quality. Therefore according to these results H2 can be assumed to be correct.

The third hypothesis is: *The association of H2 is more pronounced among the audits performed by auditors with small clientele compared to the auditors with large combined client size*. It is based on the assumption that larger audit entities have more resources to work with and higher reputation to preserve and therefore the audit quality should be reasonable with or without prior client-specific knowledge whereas for smaller entities the knowledge might be more beneficial. The main regression analyses of this study (Tables 5 & 7) use clientele size as a variable, but they only reveal its relationship between modified reports or abnormal accruals whereas the H3 is about the relationship between clientele size and the variable EXP. Therefore table 9 presents regression analyses using either full sample of distressed companies or only the cases where auditors' clientele size (BIG) was below its mean. As the variable BIG is used to sort the sample, it is not included in the regression as an independent. The table shows that the impact of the variable EXP is in fact higher amongst the smaller audit entities. Therefore the H3 is assumed to be correct.

TABLE 9 The effect of clientele size

Model	Unstandardized Coefficients Small clientele		Sig.	Unstandardized Coefficients Whole sample		Sig.
	В	Std. Error		В	Std. Error	
(Constant)	,614	,004	,000	,505	,002	,000
EXP	,037	,008	,000	,020	,005	,000
TENURE	-,002	,000	,000	-,002	,000	,000
TENURE2	-,002	,001	,098	-,005	,001	,000
LEV	,037	,000	,000	,036	,000	,000
SIZE	-,038	,000	,000	-,030	,000	,000
PBANK	,015	,000	,000	,016	,000	,000

a. Dependent Variable: OPINION

The fourth hypothesis: *The association of H2 is more pronounced among larger audited entities*, originates from assumptions that the larger the audited entity is the more difficult and time consuming process it is to thoroughly understand it. Therefore auditors with a prior experience could utilize their firm knowledge and thus achieve higher audit quality. Similarly to the third hypothesis, table 10 presents the results of regression analyses with two samples: one including every financially distressed company and another with only the ones with above average firm size. However unlike in the previous case, this time the results do not support the assumption behind H4. First of all the variables EXP and TEN-URE2 are not statistically significant. In addition the coefficients of the EXP variable are rather close to each other between the two regressions and the difference is to the opposite direction as expected. Overall these results do not support the hypothesis four as there is no significant evidence on the relationship between audited firm size and the effectiveness of prior experience to the auditing outcome.

b. Selecting only cases for which ocf\_neg = 1

TABLE 10 The effect of client size

Model	Unstandardized Coefficients  Large companies		Sig	Unstandardized Coefficients Whole sample		Sig.
	В	Std. Error		В	Std. Error	
(Constant)	,136	,005	,000	,293	,004	,000
EXP	,009	,006	,161	,012	,005	,027
TENURE	-,001	,000	,000	-,002	,000	,000
TENURE2	,000	,001	,823	-,005	,001	,000
LEV	,072	,001	,000	,036	,000	,000
BIG	-,006	,000	,000	-,011	,000	,000
PBANK	,015	,000	,000	,016	,000	,000

a. Dependent Variable: OPINION

Overall the results from regression analyses seem to support most of the hypotheses of the study. Short tenure seems to lower the audit quality, but this low quality phase can be mitigated by the auditors' prior client-specific experience. The experience seems to be more effective on the cases where the auditor is from a small audit entity. Only the last hypothesis (*H4*) about the client size is not supported by the findings. However as the coefficients of all the regressions are rather small and the values of R square are low, further research about the subject might be beneficial.

b. Selecting only cases for which ocf\_neg = 1

### CONCLUSIONS

The objective of this study was to inspect the effect of auditor's prior firm-specific experience on the audit quality during the early years of a new audit engagement. The topic is current as the European Union has issued new directive (2014/56) and regulation (537/2014) concerning mandatory auditor rotation and there is little scientific research available about all the aspects of the rotation and new audit engagements.

There are several studies concerning the relationship between audit quality and audit tenure. As mentioned earlier, most of them agree that the quality of audits is lower during the first years of an engagement (e.g. Johnson et al. 2002; Geiger & Raghunandan 2002; Chen et al. 2008). There are also studies that explain how audit quality is affected by other factors such as the size of the auditor or the client (Kim et al. 2003; Becker et al. 1998; Francis et al. 1999; Lawrence et al. 2011; Carey & Simnett 2006).

This study focuses on these same topics but from the aspect of auditors' prior experience. The expectation was that the quality of audits ought to be higher amongst those auditors who have acquired firm-specific knowledge in the past. To examine whether that is correct the study uses a quantitative approach by analyzing a rather large data from Swedish limited liability companies. Audit quality, as it cannot be measured directly, is being proxied by auditors' tendency to issue modified opinions as well as by the amount of abnormal accruals of the client. A modified version of the Jones model was used to determine the abnormal accruals. The empirical results were elicited by performing regression analyses to examine how different variables affect these indicators of audit quality.

The regression analysis using abnormal accruals as the dependent variable yielded no significant results. However the modified opinion part of the study was more successful. The auditors' tendency to issue modified reports indicates that the short audit tenure is associated with lower audit quality as expected in the H1. These findings are in consistence with the previously mentioned papers by Johnson et al. (2002), Geiger & Raghunandan (2002) and Chen et al. (2008). The main research hypothesis H2 factors in the auditor's prior firm-specific experience. The results support the hypothesis as the experience seems to have slight positive influence to the audit quality. The H3 was also confirmed by the results. The regressions show that auditors' prior experience affects audit quality more amongst those auditors who have relatively small clientele size compared to those with larger clientele. This result is consistent with the existing findings about the Big 4 companies having higher audit quality than the small companies. The hypothesis H4 was based on the assumption that the previous experience becomes more impactful as the clients' size increases. However the empirical research did not find any significant evidence to support this.

These results provide new information about the factors affecting audit quality. However the coefficient of determination of the model used is rather weak thus the results of this study alone may not be enough to be impactful in

decision-making. Nevertheless the study reveals that client-specific knowledge can be utilized for achieving better quality. Further research using a different data and/or methods could be useful for confirming and extending the findings so that there would be more information available as a basis for new auditing regulations as well as for developing auditing practice.

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