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Auditor characteristics and the effect on audit quality

Abstract: The impact of audit partner characteristics on audit quality in the United States is investigated in this thesis. With the implementation of PCAOB Rule 3211 in 2017, which requires the disclosure of audit partner names for all audits of publicly traded companies, it became possible to analyse this effect empirically. The four audit partner characteristics researched in this thesis are audit partner gender, busyness, education and Big Four experience. Using a unique sample of 203 audit partner names disclosed in the PCAOB, this thesis finds evidence that audit partner characteristics are associated with audit quality in the United States. This effect has not been identified in previous studies on partner characteristics in the United States audit. All characteristics have logical coefficients, according to this research. Only the findings for the variable Education, on the other hand, are significant.

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1 Introduction & background

The PCAOB is implementing new guidelines in response to several years of investor feedback emphasizing the need and value of improved openness and accountability regarding all audit participants. Various requirements, such as required audit firm and mandatory audit partner rotation, were imposed by auditing regulatory organizations around the world in the following years. The PCAOB introduced a required APD and an adjustment to accounting rules in January 2017 after lengthy and contentious debates in 2016. The Securities and Exchange Commission (SEC) and the PCAOB both strive to improve audit quality. The SEC's purpose is to improve audit quality to assure financial statement stakeholders that the financial statements present a truthful and fair picture of the client's underlying economics (PCAOB, 2015). The new guidelines and form are intended to offer information about the engagement partners and accounting firms involved in auditing issuers to readers of financial statements (Abad, 2017).

The PCAOB considers that the following new disclosures will improve audit quality. Audit quality is a component of financial reporting quality, therefore improving it will improve financial reporting credibility. The additional information that must be reported in a Form AP is intended to assist all financial statement users, particularly investors and issuers. Investors will now be able to see the names of the engagement partners on all issuer audits and use this information to assess the audit's quality based on the partner's reputation, expertise, and credentials. Since then, audit firms have been required to reveal the identity of the audit engagement partner as well as information about other accounting firms involved in the audit. (Abad, 2017) The PCAOB requires all registered public accounting firms to file a Form AP for each public company audit report produced after January 31, 2017. For all registered public accounting companies in the United States, this Form AP comprises the partners' names, audit firms, and date of signature (US) (PCAOB, 2015).

However, due to differing perspectives on the desired effect, this rule was met with opposition by audit companies and CPAs. The PCAOB asserted in its defence that Audit Partner Disclosure (APD) would increase audit process transparency and audit partner responsibility. The company claims that engagement APD will enable the development of a database that will enable the market and other stakeholders to assess several informational points about the engagement partner, such as education, professional titles, credentials, memberships in associations, the quantity of engagements, and previous audit history. Based on auditor characteristics and previously established patterns, the market can then draw judgments about audit quality. In addition, awareness of public scrutiny because of such information's availability would encourage audit partners to become more competent to avoid the negative effects of a perceived audit failure. Second, the disclosure would increase partner accountability, potentially leading to increased effort and audit quality. They anticipate more effort and better audit quality since poor audit quality might undermine the auditor's reputation (PCAOB, 2015).

Auditors are responsible for providing reasonable assurance to shareholders that the financial statements, taken as a whole, are free from material misstatement, whether caused by fraud or

error. Today, the public expects more from the auditors than the previously named responsibility. The public expects accountants to focus completely on looking for fraud and errors, which in practice is not done by accountants. The quality of financial reporting has been the subject of controversy in the accounting literature throughout the years. Indeed, it has piqued the curiosity of researchers, authorities, and organizations, who have attempted to clarify it on multiple occasions. As a result, according to Mardessi (2022), "excellent financial reporting is full and transparent financial information that is not designed to obscure or mislead readers." As a result, the higher the financial report's information utilization, the higher the report's quality, and vice versa. To safeguard investors, financial statements should give transparent, timely, and reliable information (Mardessi, 2022).

Audit quality is determined by the market-estimated combined likelihood that a specific auditor would both (a) identify and (b) report a breach in the client's accounting system. The likelihood of an auditor discovering a breach is determined by the auditor's technological skills, the audit processes used on a given audit, the scope of sampling, and other factors (DeAngelo, 1981). Audit quality can also be defined as the joint probability that auditors both "discover a breach in the client's accounting system or as "greater assurance of high financial reporting quality (FRQ)." In this line of thought, Salehi et al. (2017) summarized various definitions of audit quality, for example: An assessment of the auditor's ability to reduce the biased errors and misstatements and to improve the quality of accounting data or the accuracy (the degree to which an expression or measurement conforms to a true value) of the auditor's information has made reports (Salehi, Moradi, & Paiydarmanesh, 2017).

The FRQ has been the subject of controversy in the accounting literature throughout the years. It has piqued the curiosity of researchers, regulators, and organizations, who have attempted to clarify it multiple times. They took a shareholder/investor protection approach to financial reporting quality, which means that capital providers determine the usefulness and sufficiency of reporting. As a result, the higher the financial report's information utilization, the higher the report's quality, and vice versa. Consumers pay for the cost of assessing audit quality, determining the likelihood that a given auditor would both identify and disclose a violation on a given client's audit. When evaluating audit quality is expensive, self-interested individuals are motivated to create alternative arrangements that allow for the exchange of quality differentiated audits. To safeguard investors, financial statements should give transparent, timely, and reliable information (DeAngelo, 1981).

The introduction of Rule 3211 is only to increase audit transparency. The enhanced disclosures are designed to improve the information about the auditors available to investors and other users of financial statements. This paper will examine to what extent the information resulting from the new rules, and auditor characteristics, has an association with audit quality. Individual effects of auditor characteristics on audit quality have been studied, but not the extent to which two characteristics together have a stronger effect on audit quality. To make conclusions about this, we will look at the interaction effects of individual character traits in addition to individual characteristics in this research. The two main topics, audit characteristics and audit quality, would be well defined to look at the effect of auditor characteristics on audit quality in the U.S.

audit setting.

Therefore, the following research question will be answered in this thesis:

Are auditor characteristics associated with audit quality in the U.S. audit setting?

This thesis investigates four audit partner characteristics: gender, education, Big N experience, and busyness. Furthermore, data on audit partner characteristics was manually gathered from the audit partners' LinkedIn profiles. The results are based on an OLS regression model with audit quality as the dependent variable and auditor characteristics as the independent variables. Female, busyness, Education, and Big4Exp are the variables of interest in this regression. Control variables will be added to the regression to guarantee that there are no biases or missing data. In this thesis, the absolute value of discretionary accrual is employed as a proxy for audit quality.

The thesis will be divided into multiple parts that will ensure that the main question is answered gradually. In this way, the most important terms will become clear and more information on the subject will be given first. The first part will look at Rule 3211 and what changes it involved for auditors. The second part is to look at the definition of audit quality and the measurement of audit quality. Different components of audit quality will be discussed here, for example, firm size and firm characteristics. Following that, the multiple characteristics will be analysed, and the influence of these characteristics on audit quality will be investigated.

Research findings on the impact of partner characteristics on audit quality, however, are insignificant. Education is significantly associated with audit quality, according to a sample of 203 names from AuditorSearch. More specifically, there is a negative and insignificant association between gender, big4experience, and busyness with audit quality. This implies that audit quality is associated with female partners, busy auditors, and auditors with Big Four experience.

This thesis contributes to both research and practice in a variety of ways. To begin, this thesis finds evidence that, in addition to audit partner characteristics being associated with audit quality in the US audit market, where prior research has found a significant association, interactions of audit partner characteristics will improve audit quality even more in the US audit market. Second, the findings of this thesis may affect investors, audit committees, and debt providers in their decision-making process; they will consider the effects of interactions of characteristics as well as individual effects in their analysis.

2 Literature review

2.1 Introduction

Multiple articles have been published that investigate the overall impact and information

provided by the recent audit partner disclosure rule in the United States. Every time an audit report is released, registered public accounting firms are required by PCAOB Rule 3211 to publish the identity of the audit partner. They gather data on partner gender, busyness, education, and experience to see if these newly discovered variables are linked to audit outcomes. A few papers from the entire literature on the effect of auditor characteristics on audit quality will be discussed below.

According to previous research, revealing partner names in Form AP improves the audit information environment, which supports the PCAOB's reason for Rule 3211. According to multivariate analyses, these characteristics, made available by the revelation of partner names, are related to audit outcomes. The multivariate results show that audit outcomes differ depending on several relationship variables and that these findings frequently differ from findings from other countries with relevant partner data. This should encourage others who are interested in the audit partner's background, such as investors, creditors, activists, and audit committees, to think about it while making decisions (Burke, Hoitash, & Hoitash, 2019).

To begin with, there is research that examines whether the quality of engagement audits is affected by the gender and experience of audit partners while controlling for selection effects. Higher audit fees are favourably associated with female and more experienced audit partners in terms of audit quality. The findings show how significant partner characteristics are on audit quality's demand and supply sides. Female audit partners with more experience are specifically associated with higher audit fees, consistent with the findings that riskier clients are assigned to female auditors (Lee, Nagy, & Zimmerman, 2019). There is a negative relationship between absolute/income-increasing abnormal accruals and audit partner experience. Another paper also confirms this negative relationship. First, audit partner experience is negatively related to absolute and income-increasing discretionary accruals. This result supports the hypothesis that audit partner experience improves audit quality. Second, earnings response coefficients are greater for firms audited by more experienced partners, demonstrating that investors value and recognize the experience of auditors. In conclusion, the findings of this article support the claim that individual partner experience influences audit quality and provides investors with relevant information. Even after controlling for audit firm characteristics, these results are solid (Wang, Wang, Yu, Zhao, & Zhang, 2015).

In addition to this research, another paper looks at the relationship between partner portfolio characteristics and audit quality using data from Sweden's engagement partners. This paper gives two reasons why it is relevant to publish partner names: (1) improved accountability may lead to increased diligence from engagement partners, and (2) users of the audit opinion will have more information to infer audit quality. One of these reasons indicates a deterrent impact, implying that increased accountability because of being personally named to the public or other stakeholders could lead to behavioural changes among audit partners. If this is the case, such changes in behaviour could have a direct impact on audit quality (Bedard, 2012). In addition to the partner characteristics affecting audit quality, it also affects audit fees according to another paper. Audit quality is strongly influenced by the auditors' age, gender, educational background, industry specialization, position, number of audit years, and workload. The empirical findings

suggest that when choosing audit services, audit clients examine not only the firm's characteristics, but also the individual characteristics of auditors, and they are willing to pay higher audit fees for auditors that offer "high quality" signals. Because firms nowadays reveal some concise information, such as the firm's overall ranking, the audit firm should pay attention to the disclosure of the individual auditors' characteristics (Liu, 2017).

2.2 Gender of the auditor

Individuals who utilize their skills and experience to examine and provide audit opinions on financial statements prepare audit reports. Differences in individual characteristics, such as gender, can influence how people process information and make decisions, according to behavioural economics and cognitive psychology. The quality of an auditor's judgment, which can be expressed in terms of material misstatement detection and reporting, is influenced by factors such as problem-solving abilities, risk profile, and independence from the client. Women auditors uncover more potential misstatements than male auditors, according to previous studies. Women auditors are also more risk-averse than men, according to the research. The paper also discovered that a considerable time constraint on information processing will push both female and male auditors to use more simplified processing procedures, which will benefit male auditors' accuracy over female auditors. Time pressure is more important than the complexity of the problem in explaining gender differences in accurately assessing misstatements (Breesh & Branson, 2009).

In addition, another paper found that the larger the percentage of female CPA partners in audit firm partnership structures, the better the audit quality. The female predominance in partner roles in audit companies is negatively associated with the audit clients' aggressive accounting practices (Montenegro & Bras, 2015). Correspondingly are the findings of another paper that demonstrates female auditors process information more effectively, are much more risk-averse, and are more conservative. To achieve gender equality, the proportion of female auditors in partner roles in audit companies should increase. This would result in lower female auditor turnover and improved audit quality (Montenegro & Bras, 2015). Furthermore, the findings of another study imply that female auditors provide superior audit quality because they are more independent (issuing more GCOs to important clients) and risk-averse (making them issue more GCOs to high-risk clients). The results of the multinominal logistic regression in this paper revealed that female auditors have lower audit error rates, implying greater reporting accuracy (Hardies, Breesh, & Branson, 2016).

That women have a positive influence on audit quality is also confirmed by another paper. They found a positive and substantial link between female audit engagement partners and audit quality in high-growth organizations, implying that high-growth companies audited by female audit engagement partners have greater audit quality. This is because high-growth businesses prioritize corporate strategy in their investing activities. As a result, female audit engagement partners working with high-growth organizations should put in more effort to provide a high-quality audit. In comparison to male auditors, female auditors are more accurate and competent in performing difficult audit tasks (Harymawan, Nasih, & Noeraini, 2019). Additionally, the

gender of the Audit Committee (AC) has a marginally positive link with absolute forecast error. This suggests that having more female directors on the audit committee could lead to more errors and less accuracy in earnings estimates, as well as female Chief Financial Officers using more conservative earnings management strategies. According to the agency theory, female AC members serve as a crucial controlling agent in governance, assisting the company's owners in performing the AC's duties, resulting in improved financial reporting quality and overall audit quality (See, Pitchay, Ganesan, Haron, & Hendayani, 2020).

Finally, reasoned from a different angle, a paper discusses the connection between gender and morality. When it comes to denying wrongdoing, women are more emphatic. Moral standards are higher among women than among men. Females are more self-reliant than males. Furthermore, female auditors have superior moral reasoning skills. As a result, they will be more likely to accurately reflect and report the error. To summarize, gender variations in critical thinking skills, risk preference, and independence exist. Female auditors analyse information more thoroughly, have lower risk aversion, and are more independent, resulting in improved audit quality (Dan & Wei, 2012).

2.3 Educational background of the auditor

The second primary characteristic that enhances AQ is the level of education of the auditor. The educational background of an engagement partner influences their professional abilities, knowledge, values, and risk tolerance. Previous auditing research has found contradictory results concerning the relationship between engagement partner education and audit quality. Because they have more information, are more knowledgeable and competent, and put in more effort, auditors with post-graduate degrees produce more qualified audit work than auditors with bachelor's degrees. These qualifications enable educated auditors to spend their time more efficiently and overcome challenges that can arise due to a lack of time. Auditors with master's degrees have a higher general knowledge level than auditors with bachelor's degrees. When executing an audit task, more knowledgeable auditors ask more crucial questions, collect more evidence, and discover misstatements more effectively (Che, Langli, & Svanstrom, 2018).

More educated auditors put in more effort, and more audit effort is likely to increase audit quality. Educated but busy auditors who put in a lot of effort may be able to mitigate the detrimental effect of auditor busyness on audit quality. Control over the work process and control over others are provided by well-educated people. Workload has an inverse relationship with audit quality in terms of the audit opinion, discretionary accruals, minor profits, and reporting lag, but auditor education may be one of the most important variables in dealing with the complexity and stress of multiple clients. Auditors who are more educated are more capable and knowledgeable, resulting in higher audit quality (Lai, Sasmita, Gul, Foo, & Hutchinson, 2016). Also, auditors with several clients are less likely to offer a modified audit opinion. However, the impact of auditor workload on audit quality is mitigated by education level. Furthermore, the negative impact of auditor workload on AQ is greater among less-educated auditors. This finding suggests that more educated auditors are better able to deal with the complexity of several clients than less educated auditors and that more educated auditors should

have more clients to improve audit quality (Ocak, 2018).

In addition, an auditor's educational background may influence her knowledge, risk preferences, and values. Auditors with master's degrees are more aggressive than those with bachelor's degrees. Those who studied Western accounting systems in college are more conservative. This could be because they were taught in school that financial statements were created to address knowledge asymmetry between insiders and outside investors (Gul, Wu, & Yang, 2013). Moreover, the more highly educated auditors, the more knowledge can be shared in a team. For knowledge-intensive professional services like accounting and auditing, knowledge sharing is extremely vital. Working in a team allows for knowledge sharing between experienced and inexperienced auditors, as well as between more and less informed auditors. This can help them make more accurate and consistent decisions. Audit quality is positively and strongly linked to audit firm information exchange, as evidenced by lower absolute discretionary accruals and a larger propensity to offer unfavourable judgments (Duh, Knechel, & Lin, 2020).

2.4 Big Four experience of the auditor

The auditor's Big Four experience is the third primary characteristic that improves Audit Quality. Numerous studies have investigated whether Big-4 audit firms produce higher-quality audits than non-Big-4 firms, both in terms of substance and perception. There is plenty of evidence of a Big-4 influence on public companies. Most of the historical audit research has been done at the audit firm or audit-office level, assuming that audit quality is consistent across the board. The Big-4 effect may be even more pronounced at the partner level because persons conduct audits. In multiple investigations of public companies, the big-4 effect, or the assumption that Big-4 audit firms perform higher-quality audits than non-Big-4 firms, has been identified. The ability to recruit higher-quality individuals, more emphasis on learning, and stronger incentives and monitoring systems are all drivers of the Big-4 effect. Incoming partners conduct higher-quality audit work and earn greater fees before moving up to the Big Four firms than partners who do not go up. Importantly, even though the Big-4 firms attract higher-quality partners, after the move, these partners produce even higher audit quality (Chi, Hope, & Langli, 2020).

One source of increased audit quality is that the Big-4 firms employ better people because individual engagement partners and staff do audit work. Higher-quality staff could be the result of training and experience gained while working for a Big-4 firm. It could also indicate that Big-4 organizations are better able to find and recruit individuals who are more driven, educated, and possess greater intrinsic abilities. Audit partners have essential characteristics that contribute to the high quality of their audit work. The reasons are that Big-4 companies are better at motivating both auditees and partners to conduct higher-quality audits through increased supervision or better compensation, and they may stimulate or provide better learning opportunities (Aobdia, Lin, & Petacchi, 2015). Big4firms have more resources than non-Big-4 firms, and prospective partners have access to a larger pool of resources. The quality of human resources available in brokerage firms has a significant impact on the success of new analysts. Because of their combined experience, more peers to consult, stronger in-house competence in

detecting substantial misstatements, more valuation and tax experts, and more internal support from legal consultants, larger audit offices offer higher-quality audits. Big-4 firms can help incoming partners improve their skills and competence by providing facilities that can help them learn more, especially for partners who are moving to larger offices (Sundgren & Svanstrom, 2013).

Stronger monitoring/incentives are a third aspect that may contribute to greater audit quality. To ensure adequate audit quality, rules and regulations are in place. An evaluation of the firm's internal control system is part of a periodic review. Both the FSAN and the US PCAOB review public clients that are listed in the United States at least every third year. The FSAN and the PCAOB's more frequent and thorough inspections give a stronger incentive for a Big-4 business to maintain sufficient quality in its internal control system, which includes the engagement review process, to provide high-quality services (Chi, Hope, & Langli, 2020). Because they have more to lose, wealthier audit firms are believed to conduct higher-quality audits, and wealth is a significant determinant of audit quality. Wealth may have a similar impact at the partner level. When Big-4 partners are sanctioned, their income drops much more than non-Big-4 partners after an audit failure, incentivizing Big-4 partners to provide higher-quality audits. In general, Big-4 firms pay partners and employees more than non-Big-4 firms. If a partner's compensation or wealth increases after switching from a non-Big-4 to a Big-4 firm, they are more motivated to provide higher-quality audits (Sundgren & Svanstrom, 2017).

Also, audit firms should provide superior audit quality than smaller ones. For example, the Big-4 firms have more professionals in auditing, accounting, taxes, and valuation, as well as superior incentive and quality control systems. Furthermore, the Big-4 companies invest in and apply innovative audit methods for all clients, and their resources are available to private and public clients' auditors. Audit fees would increase since higher quality is likely to be priced higher (Knechel, Niemi, & Zerni, 2013). Finally, due to standardized audit procedures, a more extensive training program, and more possibilities for acceptable second audit partner evaluations, the Big Four firms' quality may be higher. Aside from the number of resources that could affect audit quality, certain client characteristics help Big Four audit firms improve audit quality. Apart from these firm-level considerations, there may be a difference in the quality of on-the-job experience and other intangible elements at the individual auditor level that impact audit quality to be greater at Big Four firms (Semba & Kato, 2019).

2.5 The busyness of the auditor

The last primary characteristic that increases audit quality is the auditor's busyness. The notion behind how busy audit partners affect audit quality is mixed. Theoretically, audit partner busyness has both a positive and negative impact on audit quality. Audit partner busyness may have a favourable impact on audit quality for a variety of reasons. A busy audit partner should be more independent, and his audit quality should improve as a result. The wealth of the partner-in-charge of a particular client is less dependent on retaining that client as the number of clients increases. As a result, the greater the chance that a breach will be identified, the more likely the partner will disclose it. According to the literature on auditor specialization, auditors gain

experience/knowledge and hence increase their expertise by doing more audits. Expert auditors, as a result, often have a larger clientele. As a result, a partner's busyness is more likely to reflect their knowledge, and hence the audit quality (DeAngelo, 1981).

Furthermore, an auditor with a larger client portfolio has a higher motivation to be more impartial and to truly report any inconsistencies uncovered because the auditor's potential loss of quasi-rents from a larger client base if caught "cheating" is greater. Busier partners are more likely to be more competent in providing greater audit assurance than their less-busy counterparts. A high workload exposes partners to a wider range of experience and knowledge, as well as allows them to expand their industry expertise and reputation by conducting additional audits. A low workload, on the other hand, may suggest a lack of practical training and experience. Partners who service more clients are more likely to conduct high-quality audits due to reputational effects. They also claim that partners with a bigger number of clients are better at multitasking and can maintain high-quality audits despite the high workload (Lennox & Wu, 2018). Clients audited by partners with a greater workload report lower discretionary accrual and a lower likelihood of a small profit increase to meet performance benchmarks than clients audited by partners with lower workloads. Partners with a greater workload are also less likely to delay audit report publication (Cheng, Haynes, & Yu, 2021).

On the other side, the busyness hypothesis in the governance literature implies that having too many directorships is detrimental to corporate governance performance since such directors devote insufficient time and effort to supervising management. When a partner audits many clients, the quality of the audit may be damaged, implying that there should be regulatory procedures in place to limit the number of audits performed by a partner (Goodwin & Wu, 2016). A higher level of workload reduces the amount of attention an audit partner devotes to the average client in his portfolio. Although a busy partner can expand his audit team and delegate responsibilities to subordinates, these measures may not solve the problem of limited attention because supervising and managing the actions of subordinates requires additional attention. As a result, the increased workload may cause a partner's audit judgment and decision-making to be suboptimal (Fich & Shivdasani, 2006).

In addition, an audit report should be signed by both the audit partner in charge of the audit engagement and the audit office's senior partner. While the senior partner signs every audit report issued by his or her audit firm to comply with this requirement, he or she has little or no role in the audit process in practice. In other words, even though the chief partner serves a substantial number of clients, he or she has little influence over audit quality. Instead, the partner with the fewest clients oversees the specific audit work and has greater control over audit quality (Gul, Ma, & Lai, 2017). The assumption that auditors with several clients are more likely to produce low-quality audits is based on the idea that detecting earnings management requires a significant amount of effort and focus on the part of the auditor. When audit effort is reduced, abnormal accruals for their clients are more typically positive than negative. Companies are more inclined to manage earnings upwards to achieve or exceed the zero earnings target when positive abnormal accruals are higher. As a result, auditors who serve several customers are more prone to expend their attention and effort on low-quality audits

(Caramanis & Lennox, 2008).

3 Hypothesis development

Recent research shows that the effect of partner characteristics on audit quality can be utilized in auditing research (Gul, Wu, & Yang, 2013; Goodwin & Wu, 2016). Gender, educational background, experience, and the busyness of engagement partners are all associated with audit quality, according to researchers.

3.1 Gender

The first component we will look at is the gender of the auditor. People differ in certain psychological qualities such as risk tolerance, overconfidence, and conservatism, according to psychological studies. Due to the possibility that these psychological factors influence audit judgment, there may be differences in audit quality between male and female auditors (Levin, Snyder, & Chapman, 1988). Females made better ethical decisions than men. Females were also more likely than males to indicate ethical intentions. Gender socialization is a popular explanation for gender differences, as women are expected to be more obedient and so more likely to follow societal rules, whilst men are expected to be more independent (Beu, Buckley, & Harvey, 2003). Women are more worried about others' suffering and care than men, and their moral development and reasoning processes are fundamentally different (Pierce & Sweeney, 2010). The variable FEMALE takes 1 if the auditor is female, and 0 otherwise.

The following hypothesis will be answered here:

H1: Female auditor gender is associated with higher audit quality

3.2 Educational background

The second important characteristic of an auditor is education. The educational background of an auditor can influence her knowledge, risk preferences, and attitudes. The first criterion is whether an auditor has a master's degree or higher (Gul, Wu, & Yang, 2013). Auditors with a higher accounting background are more likely to discover earnings manipulation and charge greater audit fees, according to a previous study ((Chu, Florou, & Pope, 2017). If the auditor attended one of the top 25 MBA business schools in the United States, according to the Financial Times MBA rating, the variable Education will be 1, otherwise, it will be 0.

The following hypothesis will be answered here:

H2: The quality of educational institutions is linked to the quality of audits

To overcome gender discrimination, female partners may need to demonstrate higher competency and earnings quality. As a result, they have higher expectations for their responsibilities and spend more time on their jobs (Ittonen & Peni, 2012). Another previous

research found that there are also disparities in risk perception between males and females. The study's first finding is that males and females have different definitions of risk. Second, because males create and handle risks more frequently than females, they are less concerned about them (Gustafson, 1998). This implies that when the audit risk model is used, the control risk decreases while the detection risk rises resulting in higher audit quality. A previous study has revealed that female auditors are more efficient than male auditors while performing more difficult analytical tasks, whereas male auditors are more efficient when performing less complicated analytical activities.

In addition, these qualifications enable educated auditors to spend their time more efficiently and overcome challenges that can arise due to a lack of time. Auditors with master's degrees have a higher general knowledge level than auditors with bachelor's degrees. When executing an audit task, more knowledgeable auditors ask more crucial questions, collect more evidence, and discover misstatements more effectively (Che, Langli, & Svanstrom, 2018). According to the findings, male auditors obtain higher audit quality on less complicated audit engagements than female auditors, but female auditors achieve higher audit quality on more complex audit engagements (O'Donnell & Johnson, 2001). The general human capital theory suggests that education influences a person's knowledge and abilities when combined with the findings of another study (Becker, 1962). As women made better ethical decisions than men and are more likely than males to indicate ethical intentions and have a higher level of education and therefore will perform more efficient and have higher abilities, this will result in higher audit quality. This paper will investigate the interaction between the female gender and the level of education.

The following hypothesis will be answered here:

H3: Female Auditors with an elevated level of education will improve audit quality more

3.3 Big Four experience

Another important characteristic of an auditor is experience at a Big Four company. Audits at larger Big 4 offices are expected to be of higher quality since their auditors have more combined expertise in executing public company audits, according to the prediction. As a result, a large office will have more competence in-house in finding material issues in SEC clients' financial statements. Auditors in smaller Big 4 offices, by implication, have less experience and hence have less skill in recognizing such issues (Francis & Yu, 2009). Based on their perceived expertise (because of their considerable investment in auditor training facilities and programs) and independence quality (by their size and a large portfolio of clients), Big Four auditors are providing greater audit quality (Behn, Choi, & Kang, 2008). Experience is a dummy variable that is 1 if the auditor worked for a Big N audit firm as an audit senior or higher and subsequently switched to a non-Big N audit firm later in his career, and 0 otherwise.
The following hypothesis will be answered here:

H4: Experience at a Big Four company has a positive association with audit quality

On the one hand, a better knowledgeable auditor may notice more material misstatements and ask more crucial questions, necessitating more audit evidence and, as a result, a greater amount of effort. Auditors with a master's degree, on the other hand, may be able to finish the audit in less time, decreasing effort (Che, Langli, & Svanstrom, 2018). According to another research, signing auditors who are also partners throughout their university education or have worked in an international Big N audit company is more conservative. These findings imply that individual characteristics of auditors can influence their judgments and conclusions, resulting in audit quality differences between auditors. Furthermore, auditors at smaller Big 4 offices are implying that they have less expertise and thus less skill in recognizing material issues in financial statements (Gul, Wu, & Yang, 2013). Another article claims that as an auditor audits more organizations, he or she develops more expertise and knowledge and that this growth in experience and knowledge could potentially improve audit quality (Goodwin & Wu, 2016).

This paper will investigate the interaction between Big Four experience and elevated level of education because it is expected that auditors with Big Four experience and a high level of education will improve audit quality more:

H5: Auditors with both Big Four experience and an elevated level of education will improve audit quality more

3.4 Busyness

The last important auditor characteristic is busyness. This paper will investigate and argue whether there is an association between an auditor's busyness and audit quality. Specialized auditors can employ more appropriate information in decision making, resulting in more accurate judgments, because they have created extensive and complicated memory structures (Cahan & Sun, 2015)). Also, audit partner busyness has a beneficial effect on auditor independence. With a bigger number of clients, the auditor's independence grows since a smaller amount of the auditor's income is associated with a single client, and so detaining a single client becomes less crucial (DeAngelo, 1981). The natural logarithm of the number of publicly traded firms an auditor oversees each year is used to calculate specialization. Because the number of publicly traded firms that an auditor oversees in a year is skewed, the natural logarithm is utilized.

The following hypothesis will be answered here:

H6: There is an association between the level of specialization of auditors and audit quality

4 Research design

The research design for this thesis is discussed in this chapter. The first paragraph of this chapter outlines how the impact of various audit partner characteristics on audit quality is measured. The OLS regression method was used to evaluate this effect. Appendix A contains the

predictive validity framework for this relationship. First, we will look at how the dependent variable discretionary accruals are calculated. Next, we will look at the variable of interest and the method of calculation. Finally, the control variables will be discussed. To avoid the bias induced by repeated firms, all continuous variables are winsorized at the 1 and 99 per cent levels. The data and sample selection procedure are discussed in the second paragraph of this chapter. Here the different databases will be explained and the way to arrive at the sample.

4.1 Proxy for audit quality
4.1.1 Discretionary accruals

The use of discretionary accruals by managers to move reported revenue across fiscal periods is a key focus of the earnings management literature. The models range from the basic (total accruals as a measure of discretionary accruals) to the more complex (regression), which breaks down accruals into discretionary and nondiscretionary components. Non-discretionary accruals are those over which managers have no control because they are linked to business conditions and cannot be used to manage earnings. Discretionary accruals, on the other hand, are under the control of management. That is why the model concentrates on discretionary accruals. The Modified Jones Model (Dechow, Sloan, and Sweeney 1995), which is employed in this research, is one of the six models. Modified Jones' principal goal is to improve the measurement of discretionary accruals. The creators of this model manage a simple problem: corporations can manage their revenues, and this effect can be controlled if the possibility of manipulating credit sales is considered.

Jones' model (1991) proposes that earnings management can be discovered by comparing mean total accruals (TA) scaled by total assets (A) and variations in revenues due to changes in operating capital and accruals. As a result, changes in revenue (REV) and fixed assets (PPT) are calculated and used as independent variables in the following model to predict DAC. Dechow expanded on the fundamental assumption of the Jones model in 1995, stating that not all revenue changes are non-discretionary. This is because credit sales can be used to control earnings, which Dechow rectified by subtracting the variation in sales (REC) from the revenues. The discretionary accruals are calculated by measuring the non-discretionary accruals as a portion of the total accruals. This was called the modified jones model and is constructed as follows:

Step 1: Calculate the total accruals as follow:

$$TACC_t = \Delta CA_t - \Delta Cash - \Delta CL_t + \Delta DCL_t \, DEP_t$$

$TACC_t$ stands for total accruals in year t, ΔCA_t for change in current assets in year t, $\Delta Cash$ for change in cash and cash equivalents in year t, ΔCL_t for change in current liabilities in year t, ΔDCL_t for change in short term debt included in current liabilities in year t and DEP_t for depreciation and amortization expense in year t.

Step 2: Estimate the Modified Jones Model:

$$\frac{TACC_t}{A_{t-1}} = \alpha_1 \frac{1}{A_{t-1}} + \alpha_2 \frac{\Delta REV_t}{A_{t-1}} + \alpha_3 \frac{PPE_t}{A_{t-1}} + \varepsilon_t$$

TACC$_t$ stands for total accruals in year t divided by total assets in year t-1, ΔREV$_t$ for revenues in year t less revenue in year t-1, PPE$_t$ for gross property plant and equipment in year t and A$_{t-1}$ for total assets in year t-1. An ordinary least squares regression is used to estimate alphas, coefficients, and parameters (OLS). These are the parameters or alphas that have been estimated.

Step 3: Calculation of the non-discretionary accrual and discretionary accruals

$$\frac{NDACC_t}{A_{t-1}} = \hat{\alpha}_1 \frac{1}{A_{t-1}} + \hat{\alpha}_2 \frac{(\Delta REV_t - \Delta REC_t)}{A_{t-1}} + \hat{\alpha}_3 \frac{PPE_t}{A_{t-1}}$$

NDACC$_t$ stands for non-discretionary accruals divided by total assets in year t-1, ΔREV$_t$ for revenues in year t less revenues in year t-1, ΔREC$_t$ for net receivables in year t less net receivables in year t-1, PPE$_t$ for gross property plant and equipment in year t and A$_{t-1}$ for total assets in year t-1.

The discretionary accruals will be calculated with the next formula:

$$DACC_t = TACC_t - NDACC_t$$

Because profits can be managed both upwards and downwards, the absolute value of discretionary accruals is the dependent variable in this thesis. To investigate the relationship between the absolute number of discretionary accruals and various audit partner characteristics, the following OLS model is estimated:

$DACC = \beta_0 + \beta_1 GENDER + \beta_2 TOP25MBA + \beta_3 BIG4EXPERIENCE + \beta_4 BUSYNESS$
$+ \beta_5 Gender*TOP25MBA + \beta_6 TOP25MBA*BIG4EXPERIENCE + \beta_7 LOSS +$
$\beta_8 CASHFLOW + \beta_9 MTB + \beta_{10} LEV + \beta_{11} ASSETS + \beta_{12} SALESGROWTH + \beta_{13} BIG4 + \varepsilon$

The variables of interest in this regression are GENDER, TOP25MBA, BIG4EXPERIENCE and Busyness. For an overview of the variables of interest and the control variables, please refer to Appendix B.

4.2 Sample selection and data

The primary purpose is to evaluate the hypotheses above using a random sample of auditors from the PCAOB AuditorSearch database. Because financial data and auditor characteristics data are maintained in separate databases, I first combine them before selecting a sample. This guarantees that the sample includes most of the variables needed to evaluate all the hypotheses.

A dataset was created from three separate databases to obtain a sample. As a result, the data collection combines information from AuditorSearch, Compustat (from WRDS), and extra data from the social networking platform LinkedIn. LinkedIn has grown to become one of the world's largest professional networks in recent years, and users are required to post a brief professional biography on their public profile.

The first step is to gather financial data from the Compustat database to calculate the discretionary accruals. For audits of publicly listed companies completed on or after January 31st, 2017, PCAOB rule 3211 requires auditors to file the Form AP. As a result, the sample for this thesis covers the years 2016 until 2020. The dataset will only include companies located in the United States. There are 62046 observations in this database. The next step is to remove all observations with missing CIK or a fiscal year or missing values to calculate ADACC. This results in a database of 5031 observations. The third step is to gather information using AuditorSearch's Form AP, which is only available from 2016 onwards. There are 89118firm-year observations in the database of PCAOB.

After this, excluding non-US firms, duplicates, and observations missing CIK and fiscal year is the fourth step. The important identification variables are CIK and fiscal year. There are 55198 firm-year observations on the final list of the database from PCAOB. Combining the database of Compustat (values for dependent variable) and PCAOB (partner names), step 5, produces a database of 5031 observations. Because these removed PCAOB observations missing a CIK or fiscal year, they were unable to be merged with observations from the Compustat database. Following that, financial data from the Compustat database will be gathered to calculate the control variables (step 6). This results in a dataset of 62046 observations. In step 7, the observations with a missing CIK, fiscal year, or missing value to calculate the control variable will be removed. This will result in a dataset of 2029 observations. This dataset will be combined in step 8 with the dataset from step 5 and will result in a dataset of 2029 observations. This dataset will contain all the information for calculating the dependent variable ADACC and the control variables combined with the corresponding partner names.

Finally, a sample will be taken of 5% of all observations and 101 observations will be examined. A sample of 101 audit partner names was chosen from audit companies around the United States. The samples are chosen randomly using the STATA command to eliminate selection bias. Also, continuous variables are winsorized at 1% and 99%, For a clear overview of the sample selection procedure, see Appendix 1. LinkedIn will be used to gather background information on each partner, including gender, prior experience, and education level. For the variable BUSYNESS, we will look at how many companies have a partner on average per year in the PCAOB database. In some cases, where the auditor's LinkedIn profile is incomplete, firm websites will be used to get more information. This does not result in any observations with missing values, so the sample retains all 203 observations. The steps in merging the data sets are summarized in the table below.

Table 1: *Sample selection process*

Sample selection process	Observations	Missing values	Remaining observations
Total observations in the PCAOB database for 2016-2020	89118	-	89118
Less: observations with missing CIK and Fiscal year or partner name	89118	33920	55198
Less: missing values when merged with Compustat database → deleted observations with missing values for calculation ADACC	55198	50167	5031
Less: missing values when merged with Compustat database → deleted observations with missing values for calculation control variables	5031	3002	2029
Total observation in the full sample	-	-	2029
Observations in selected sample: 1/10 of the full sample			203

5 Results

The thesis findings are discussed in this chapter. The first paragraph discusses the descriptive statistics of the data, the second paragraph discusses the correlations between variables in the regression model, and the third paragraph discusses the regression of audit partner characteristics on audit quality.

5.1 Descriptive statistics

Table 2 summarizes the descriptive statistics. Descriptive statistics, such as the mean, standard deviation, or frequency of a variable, are used to characterize or summarize the characteristics of the sample used in this thesis. It can help in comprehending the elements of a data sample's collective properties. On a total observations level, Table 2 summarizes all variables in this thesis sample. It provides descriptive statistics for the interest variables (GENDER, TOP25MBA, BIG4EXPERIENCE AND BUSYNESS) as well as the control variables.

Table 2 Descriptive Statistics of all variables

Variable	Observations	Mean	Std Dev.	1% Percentile	25% Percentile	75% Percentile	99% Percentile
DACC	203	0.0412	0.045520	0.0003404	0.0116948	0.0542098	0.2218263
GENDER	203	0.2118	0.40961	0	0	0	1
TOP25MBA	203	0.2376	0.4266849	0	0	0	1
BIG4EXPERIENCE	203	0.2020	0.4024628	0	0	0	1
BUSYNESS	203	2.3165	1.294904	.6931472	1.098612	3.295837	5.402677
LOSS	203	0.2315	0.422851	0	0	0	1
CASHFLOW	203	0.0683	0.0989013	-.2354524	.034704	.106788	.2943408
MTB	203	1.0354	0.6370275	.8959308	.9999984	1.000001	1.023256
LEV	203	0.6591	0.3295475	.0390302	.4595179	.8517957	1.55537
ASSETS	203	2502214	5515712	37.49	15182	948626	2.14^7
SALESGROWTH	203	0.0849	0.5664369	-.4534602	-.0110376	.149646	1.330057
BIG4	203	0.5665	0.4967828	0	0	1	1

Table 2 shows descriptive statistics at the level of all observations. The sample has a total of 203 observations. An audit conducted by a female auditor account for 43 of the observations, 48 by an auditor who attended a Top 25 university, 41 by an auditor who switched from a Big N to a non-Big N audit firm, and 115 by a Big 4 audit partner. All variables are described in Appendix B, and continuous variables are winsorized at 1% and 99 per cent.

The variables for the complete sample are listed in the table above. First, we will discuss the descriptive statistics of the variables of interest. There are 203 firm-year observations in the sample, with 115 linked to audits performed by Big 4 firms and 88 connected to audits completed by non-Big 4 firms. The sample includes 43 audits conducted by female auditors and 48 audits conducted by an auditor who graduated from a Top25 university. A total of 41 observations concern audits performed by auditors who shifted from a Big N firm to a non-Big N firm. Second, the control variables will be discussed. The mean of the control variable LOSS indicates that 23% of the enterprises experienced a loss throughout the observation period. Companies have an average ratio of 0.07 according to the control variable CASHFLOW, and an average market-to-book ratio of 1.04 according to the control variable MTB. Companies had an average ratio of 0.66 for the control variable LEV, and an average of 2502214 for the variable assets. According to the mean of the variable SALESGRWOTH, company sales increase by 8.5% on average every year, and on average 56 per cent of companies are audited by a Big 4 audit firm.

5.2 Correlation analysis

In research, correlation analysis is a statistical approach for calculating the link between two variables and measuring the strength of the linear relationship between them. Researchers

attempt to establish a link between two variables or datasets by looking for patterns, important relationships, and trends. When an increase in one variable causes an increase in the other, the two variables have a positive correlation. A negative correlation, on the other hand, suggests that as one variable increases, the other decreases, and vice versa. Collinearity occurs when two independent variables have a linear relationship. Multicollinearity occurs when two or more independent variables have a strong linear relationship. Multicollinearity is defined as the occurrence of an absolute correlation coefficient of >0.7 between two or more independent variables. A useful indicator of enhanced prediction is a correlation between a dependent and an independent variable. However, correlation 'among the independent variables is a problem that must be addressed to produce a valid model.

The correlation matrix between the coefficients of the main variables in this thesis' regression model is shown in Table 3. A substantial correlation on the matrix does not always imply a significant result following multiple regression analysis. As a result, the conclusions that may be derived from table 3's observation are extremely limited. The correlation matrix, on the other hand, acts as diagnostic evidence and a warning for suspected multicollinearity. There is no evidence of a strong relationship between the variables. However, there is no evidence of a strong relationship between the variables. Overall, the data in table 3 do not indicate an issue with multicollinearity, hence no additional investigation is required.

Table 3 Correlation matrix

	ADACC	GEND.	TOP25.	BIG4EXP.	BUSYNESS	LOSS	CASHF.	MTB	LEV	ASSETS	SALESGROWT	BIG4
ADACC	1.0000	-	-	-	-	-	-	-	-	-	-	-
GEND.	-0.0034	1.0000	-	-	-	-	-	-	-	-	-	-
TOP25.	-0.1532	0.0236	1.0000	-	-	-	-	-	-	-	-	-
BIG4EXP.	0.0111	0.0395	0.0377	1.0000	-	-	-	-	-	-	-	-
BUSY.	-0.0044	0.1378	-0.1815	-0.1762	1.0000	-	-	-	-	-	-	--
LOSS	-0.1121	0.1156	-0.0031	0.0729	-0.0496	1.0000	-	-	-	-	-	-
CASHF.	-0.0408	-0.0218	-0.0216	-0.1085	0.0457	-0.2978	1.0000	-	-	-	-	-
MTB	-0.0541	-0.0502	0.1317	-0.0313	-0.0823	0.1066	-0.0755	1.0000	-	--	-	-
LEV	-0.1374	0.0939	-0.0221	0.0686	-0.0924	0.0196	0.0279	0.0194	1.0000	-	-	-
ASSETS	0.0146	-0.1496	0.0953	-0.0050	0.0045	-0.0997	0.1012	0.0620	0.0635	`1.0000	-	-
SALESGR.	-0.0728	-0.0177	0.1145	0.0752	-0.0524	0.0322	-0.0195	0.0178	0.0265	0.0510	1.0000	-
BIG4	-0.0328	-0.0331	0.0423	-0.4513	0.0406	-0.1326	0.0100	0.0680	-0.0970	0.1398	-0.0840	1.0000

A Person correlation matrix between the coefficients of the main variables in the tested regression model is shown in the table above.

5.3 Empirical results

This paragraph will discuss the empirical results of the regression of this paper. The regression analysis investigates the effect of auditor characteristics on audit quality. Table 4 presents the results of the regression with the absolute value of discretionary accruals as the proxy for audit

quality. Accruals, whether positive or negative, have an impact on the quality of earnings reported in the financial statements. In addition, the use of fewer accruals is associated with higher audit quality. The coefficients in the table will be reasoned in this way. The model's results are shown in Table 4 below. Each of the characteristics and control variables is regressed against the absolute value of discretionary accruals separately.

Table 4 Absolute Value of Discretionary Accruals and Audit Partner Characteristics

	ADACC	ADACC	ADACC	ADACC	ADACC	ADACC	ADACC
GENDER	-0.0024849	-	-	-	-.0041799	-	-.0022053
	(0.31)				(-0.46)		(-0.25)
TOP25MBA	-	-.0159691**	-	-	-.0234238**	-.0195109**	-.0250454**
		(-2.27)			(-.276)	(-2.28)	(-2.86)
BIG4EXP.	-	-	-.002282	-	-	-.0032182	-.0074746
			(-0.27)			(-0.32)	(-0.76)
BUSYNESS	-	-	-	-.0008008	-	-	-.0023245
				(-0.32)			(-0.93)
GENDER*TOP25MBA	-	-	-	-	-.0288458	-	-.0268079
					(1.61)		(1.53)
TOP25MBA*BIG4EXP.	-	-	-	-	-	.0124497	.0093838
						(0.67)	(0.51)
LOSS	-.0164906**	-.015413**	-.0153091**	-.0163639**	-.0154779*	-.0167699**	-.0151598*
	(-2.02)	(-2.05)	(-2.01)	(-2.01)	(-1.91)	(-2.08)	(-1.98)
CASHFLOW	-.0563008	-.0561962	-.0547305	-.0558312	-.0608512	-.0606279	-.0611103
	(-1.26)	(-1.36)	(-1.30)	(-1.25)	(-1.38)	(-1.36)	(-1.46)
MTB	.0374937	.0286631	.0255073	.0207965	.0587733	.0615988	.061116
	(0.19)	(0.16)	(0.14)	(0.11)	(0.30)	(0.31)	(0.33)
LEV	-.0212768*	-.0177937*	-.0173177*	-.0214552*	-.0210884	-.0218148**	-.0188588
	(-1.92)	(-1.74)	(-1.67)	(-1.93)	(-1.93)	(-1.98)	(-1.81)
ASSETS	.0007028	.0007594	.0005491	.0006534	.0009267	.000903	.0008905
	(0.59)	(0.69)	(0.49)	(0.55)	(0.78)	(0.76)	(0.79)
SALESGROWTH	-.008088	-.0052689	-.0072011	-.0083938	-.0052525	-.0069969	-.0044276
	(-0.68)	(-0.47)	(-0.64)	(-0.70)	(-0.44)	(-0.59)	(-0.39)
BIG4	-.0063769	-.0050292	-.0066211	-.0062611	-.0052465	-.0057511	-.0068661
	(-0.96)	(-0.82)	(-0.95)	(-0.94)	(-0.80)	(-0.78)	(-0.99)
Cons	.0242487	.0329174	.0349209	.0437046	.0058221	.0041445	.0087605
	(0.12)	(0.18)	(0.19)	(0.22)	(0.03)	(0.02)	(0.05)
Number observations	203	203	203	203	203	203	203
R^2	0.1453	0.1665	0.1411	0.1453	0.1830	0.1720	0.1864

*The OLS regression for audit partner characteristics on audit quality, using the absolute value of discretionary accruals as the dependent variable, is shown in the table above. It shows the results of an OLS regression on the entire sample, with the variables of interest being FEMALE, BUSYNESS, TOP25MBA, and BIG4EXPERIENCE. Column (2) presents the results for the OLS regression on the full sample with GENDER as the variable of interest. Column (3) presents the results for the OLS regression on the full sample with TOP25MBA as the variables of interest. Column (4) presents the results for the OLS regression on the full sample with BIG4EXPERIENCE as the variables of interest. Column (5) presents the results for the OLS regression on the full sample with BUSYNESS as the variable of interest. Column (6) presents the results for the OLS regression on the full sample with GENDER, TOP25MBA and the interaction of GENDER and TOP25MBA as the variable of interest. Column (7) presents the results for the OLS regression on the full sample with TOP25MBA, BIG4EXERPEICE and the interaction of TOP25MBA and BIG4EXPERIENCE as the variable of interest. Column (8) presents the results for the OLS regression on the full sample with FEMALE, BUSYNESS, TOP25MBA and BIG4EXPERIENCE as the variables of interest. The regressions include the following control variables: LOSS, CASHFLOW, MTB, LEV, ASSETS, SALESGROWTH, and BIG4. All continuous variables are winsorized between 1% and 99.99 per cent. Appendix B has a list of variables. The symbols ***, **, and * denote two-tailed statistical significance at the 5% and 10% levels, respectively.*

5.3.1 Gender

Female auditor gender is associated with improved audit quality is the first hypothesis that will be discussed in this thesis. There is no significant relationship between the absolute value of discretionary accruals and gender, as seen in column 1 of Table 4. The gender coefficient (0.0024849) is negative and insignificant at all levels of significance. A negative coefficient implies that female audit partners are more likely than men to report lower absolute accruals (0.25 per cent). This could be due to gender differences, as women are expected to be more obedient and hence more likely to follow societal rules, whereas men are expected to be more independent, as indicated in paragraph 3. Although, the hypothesis cannot be accepted because the value is not significant.

5.3.2 Educational Background

The quality of educational institutions linked to the quality of audits is the second hypothesis evaluated in this thesis. Attending a top25 university has a significantly significant negative influence on audit partners' discretionary accruals of 0.0159, as seen in column 2 of Table 4. This finding implies that audit partners who attended a top 25 university are more likely to report lower absolute accruals (1.6 per cent). One of the reasons for this, as stated in paragraph 3, is that more knowledgeable auditors ask more critical questions, collect more evidence, and identify misstatements more effectively when doing audit work. The hypothesis can be accepted, and evidence that audit partners who attended a Top25 educational institution have greater audit quality is established in this thesis.

In addition, when looking at the interaction effect between gender and top25 university in column 5 of Table 4, there is a negative insignificant relationship between this interaction effect and discretionary accruals. A negative relationship implies that women who have studied at a top 25 university are more likely to report lower absolute accruals (2.9 per cent). One of the reasons for this may be that, as women have a higher level of education, they will perform more efficiently and have higher abilities resulting in higher audit quality. The hypothesis, *Female Auditors with an elevated level of education will improve audit quality more,* cannot be accepted because the value is not significant.

5.3.3 Big Four experience

The fourth hypothesis investigated in this thesis is that audit quality is positively associated with experience at a Big Four firm. An auditor who has experience at a Big Four company has an insignificantly negative influence on audit partners' discretionary accruals of 0.0023, as seen in column 3 of Table 4. This is because the Big Four invest more in auditor training facilities and programs, as well as their independence (by their size and a large portfolio of clients). In this thesis, there is no significant evidence of an association between Big N experience and audit quality. As a result, the hypothesis of an association between Big N experience and audit quality cannot be accepted.

Besides, when looking at the interaction effect between Big Four experience and top25 universities in column 6 of Table 4, there is a positive insignificant relationship between this interaction effect and discretionary accruals. A positive relationship shows that auditors who have experience at a Big Four company and attended a top 25 university are more likely to report higher absolute accruals (1.2 per cent). Signing auditors who have been partners throughout their university education or have worked in an international Big N audit firm are more conservative and will apply greater accruals, as mentioned in paragraph 3. The fifth hypothesis, that *Auditors with both Big Four experience and an elevated level of education will improve audit quality more,* cannot be accepted because the value is not significant.

5.3.4 Busyness

The final hypothesis investigated in this thesis is that there is an association between auditors' level of specialization and audit quality. At all levels of significance, the coefficient for partner busyness (0.0008) is negative and insignificant, as seen in column 4 Table 4. The negative coefficient means that busy partners report lower levels of absolute accruals resulting in higher audit quality. This thesis finds no significant evidence of an association between audit partner workload and audit quality. As a result, the hypothesis *There is an association between the level of specialization of auditors and audit quality* cannot be accepted.

6 Conclusion

The purpose of this research is to see if audit partner characteristics are associated with audit quality in the US market. This association was investigated using a database including 203 partner names from the PCAOB database. The PCAOB suggested the APD regulation, claiming that it would improve partner responsibility and transparency. The mandated publication of audit partner names in the Form AP allows the audit partner to be identified for all audits completed on or after January 31, 2017. This requirement allowed empirical research on audit partner characteristics to be conducted in the auditing context in the United States. More partner names are reported now that the obligatory audit partner name disclosure has been in place for a longer period, and there is a better opportunity to find this association in this paper.

The main research question in this thesis is whether audit partner characteristics influence audit quality in the U.S. audit setting. To evaluate this, six hypotheses have been developed. The first hypothesis discussed in this thesis is, H1: *Female auditor gender is associated with higher audit quality*. This thesis found no significant evidence to accept the hypothesis that there is an association between audit partner gender and audit quality since female audit partners allow less discretionary accruals. The second hypothesis discussed in this thesis is, H2: *The quality of educational institutions is linked to the quality of audits*. This thesis finds significant evidence to accept the hypothesis that there is an effect between educational institution quality and audit quality since audit partners who attended a high-quality educational institution use lower accruals. The third hypothesis discussed in this thesis is, H3: *Female Auditors with an elevated*

level of education will improve audit quality more. This thesis does not find significant evidence to accept this hypothesis.

The fourth hypothesis tested in this thesis is, H4: *Experience at a Big Four company has a positive association with audit quality*. An auditor who has experience at a Big Four company has an insignificantly negative influence on audit partners' discretionary accruals. In this thesis, there is no significant evidence of an association resulting in the hypothesis of an association between Big N experience and audit quality cannot being accepted. The fifth hypothesis tested in this thesis is, H5: *Auditors with both Big Four experience and an elevated level of education will improve audit quality more.* there is a positive insignificant relationship between this interaction effect and discretionary accruals. A positive relationship shows that auditors who have experience at a Big Four company and attended a top 25 university are more likely to report higher absolute accruals. The fifth hypothesis cannot be accepted because the value is not significant. The final hypothesis is, H6: *There is an association between the level of specialization of auditors and audit quality*. The negative coefficient means that busy partners report lower levels of absolute accruals resulting in higher audit quality. At all levels of significance, the coefficient for partner busyness is negative and insignificant. As a result, the hypothesis cannot be accepted.

Overall, the findings support the PCAOB's desire to implement audit partner disclosure to improve the information environment and increase accountability. Based on these findings, a takeaway from this paper is that auditing companies should promote high-quality education and look at audit partner characteristics to assure high-quality audits. Furthermore, stakeholders appreciate high-quality signals. The release of names and other information about auditors lowers information costs and helps clients in selecting efficient and acceptable audit services.

There are some limitations to the findings. First, because the concept of individual auditor characteristics discussed here is difficult to measure, only conclusions can be drawn based on the proxies utilized, which may not be a precise measure of a given quality. Second, these partner characteristics are influenced by external circumstances such as the business environment, which can affect individual judgments. The measuring of audit partner busyness is another weakness of this thesis. Only publicly traded corporations have data accessible. Audit partners frequently have a large number of private companies as clients. As a result, the proxy for audit partner busyness is not an appropriate estimate. Also, the sample does not well describe the complete dataset, which is the final limitation. For future research, it will be interesting to look at multiple proxies for a character to better describe a character and to take a larger sample.
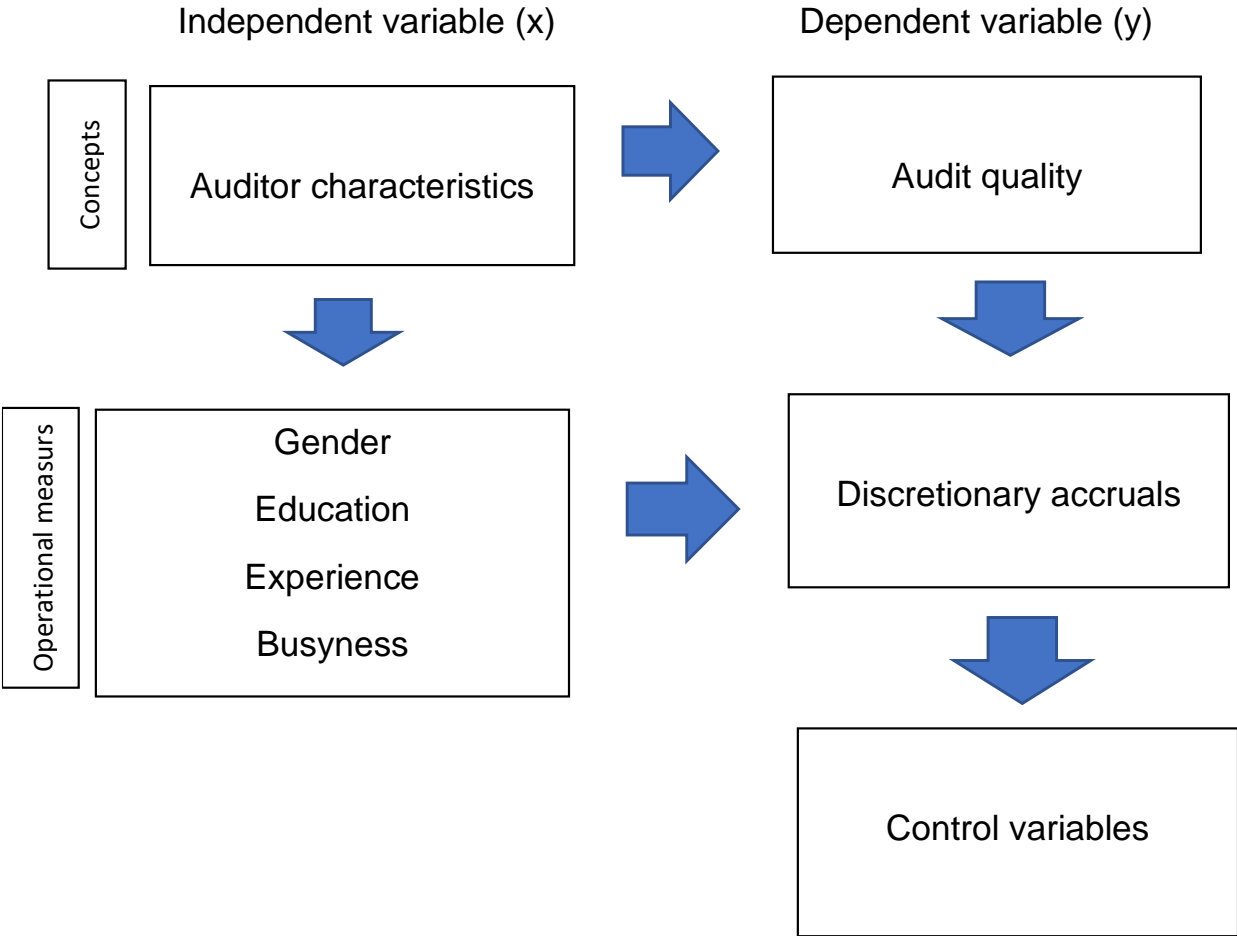
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Appendix A: Predictive validity framework

Independent variable (x)   Dependent variable (y)

| Concepts | Auditor characteristics | → | Audit quality |

| Operational measurs | Gender
Education
Experience
Busyness | → | Discretionary accruals |

Control variables

Appendix B: Variable definitions

Dependent Variable	
DACC	is the absolute value of the discretionary accruals estimated using the modified Jones model?
Test variables	
GENDER	1 if the partner is female, 0 if male.
TOP25MBA	1 if the audit partner attended one of the top 25 MBA business schools in the United States as determined by the Financial Times MBA ranking, 0 otherwise.
BIG4EXPERIENCE	1 if the audit partner previously worked in a senior position at a Big N firm and then switched to a non-Big N firm, 0 otherwise;
BUSYNESS	according to the PCOAB database, the natural log of the number of public engagements that the partner oversees.
Control variables	
LOSS	If the company's reported net income is less than zero, it equals one.
CASHFLOW	cash from operating activities divided by total assets' lagged value.
MTB	The market value of equity is divided by the book value of common equity.
LEV	total liabilities divided by total assets.
ASSETS	total assets as a natural log.
SALESGROWTH	Is the sales change divided by lag sales.
BIG4	1 If for a Big 4 partner in the United States, otherwise, zero (PwC, KPMG, Deloitte, EY).

Appendix C: Steps sample selection

Step 1: Total observations in Compustat database for 2016-2020 dependent variable
= 62046 observations

Step 3: Total observations in PCAOB database for 2016-2020
= 89118 observations

Step 2: Less observations with missing CIK or Fiscal year (54368)
Less observations with missing value for calculation ADACC (2657)
= 5031 observations

Step 4: Less observations with missing CIK or Fiscal year or partner names (33920)
= 55198 observations

Step 5: Two datasets merged
= 5031 observations

Step 6: Total observations in Compustat database for 2016-2020 control variables
= 62046 observations

Step 8: Two datasets merged
= 2029 observations

Step 7: Less observations with missing CIK or Fiscal year or missing value for calculation control variables (60017)
= 2029 observations

Step 9: Sample 1/10 of observations
= 203 observations

Appendix D: top 25 MBA universities

U.S. MBA Ranking	University
1	Harvard Business School
2	Stanford University GSB
3	University of Virginia
4	University of Pennsylvania
5	MIT Sloan School of Management
6	University of California
7	Vanderbilt University-Owen
8	Columbia Business School
9	University of Texas
10	Northwestern University Kellogg
11	Cornell Johnson
12	New York University
13	Duke University
14	University of Michigan
15	Yale School of Management
16	Wisconsin School of Business
17	University of Southern California
18	University of Chicago
19	UCLA Anderson
20	Indiana University
21	The University of North Carolina – Kenan- Flagler
22	Carnegie Mellon-Tepper
23	Emory University Goizueta
24	Dartmouth College
25	Georgetown University