Does audit quality affect the probability that a female auditor has chaired the audit team? Empirical evidence from Italian public HEIs

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Abstract

Purpose: Focusing on Italian public higher education institutions (HEIs), this study examines whether an increase in remarks in unqualified audit reports increases the likelihood that a female auditor has chaired the audit team issuing such reports.

Design/methodology/approach: To answer its research question, the paper regresses the gender of the audit team chair with, among other factors, the number of remarks in the unqualified audit reports that are assumed to be a measure of audit quality.

Findings: The results show that in Italian public HEIs, it is more probable that audit reports characterised by high audit quality (i.e., those with more remarks) are issued by audit teams chaired by female auditors.

Originality/value: These findings contribute to existing knowledge and have implications for practice. They might be explained by the innate qualities of women as well as by environmental factors such as limited litigation risk characterising both the country and the sector investigated. So, they do not contradict either the Institu-

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tional Logic perspective or the Ethics of Care Theory, according to which the environment and the aptitude to manage conflict differ between men and women.

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1. Introduction

Italy is a country with relatively low litigation risk (Vanstraelen, 2002), with its industries characterised by lower likelihood of clients scrutinising auditors. Such risk is particularly low in Italian public HEIs, where the replacement of auditors is uncommon compared to the private sector.

Assuming the number of remarks in the audit as a valid measure of audit quality (Alareeni, 2019; Houghton & Jubb, 1999; Leventis & Caramanis, 2005; Palmrose, 1986), this paper aims to address gaps in the literature by investigating whether in a setting characterised by relatively low litigation risk, an increase in such remarks positively affects the likelihood that a female auditor has chaired the team. While previous literature has provided evidence that in high-litigation risk environments, the audit reports with the highest quality are those that are more likely to be issued by male auditors (Hossain et al., 2016), little evidence of such a trend, if any, has been provided for low-litigation risk environments (i.e., the first gap). In addition, academics have paid very limited attention to audit quality in the public sector (Langella et al., 2021), particularly in HEIs (i.e., the second gap), despite the great interest of policymakers in equal opportunities and monitoring gender gaps (Siboni et al., 2016) as well as to horizontal segregation of female workers (Ministero dell'Economia e delle Finanze, 2020). According to this paper's research hypothesis, in Italian public HEIs, an increase in audit quality (i.e., remarks in unqualified audit reports) enhances the likelihood that a female auditor has chaired the audit team.

This hypothesis is supported by existing knowledge and is based on the so-called Institutional Logic perspective (e.g., Friedland & Alford, 1991; Jackall, 1988; Thornton & Ocasio, 1999) and the Ethics of Care Theory (e.g., Gilligan, 1982). While according to the first theory, the institutional environment is usually influenced by multiple and competing logics that give an identity to social actors (individuals, groups, and organisations) and inspire the behaviours of men and women, according to the second theory, females have different orientations to moral conflict, showing a particular inclination

towards relations, welfare, and well-being and therefore manifesting a superior care orientation. Merging these theories, it is possible to hypothesise that female auditors seem to be more accurate in auditing than their male counterparts not only because of female behavioural traits but also because of other factors, including the litigation risk typical of the environment in which the auditor operates, and that explains different behaviour between male and female auditors. In each environment, there is a different aptitude for managing a conflict. With respect to auditing, scholars have provided evidence that in high-litigation risk environments, risk aversion on the part of female auditors and their lower ability to manage conflict than male auditors could lead female auditors to produce lower-quality audit reports than their male counterparts to avoid scrutiny or the risk of causing the client to switch auditors (Hossain et al., 2016). In low-litigation risk environments the opposite should be the case, so female auditors should produce higher-quality audit reports than their male counterparts.

To study the impact of audit quality on the likelihood that a female auditor has chaired the audit team, this paper used a logistic regression model focusing on Italian public HEIs in the period 2016-2018 – that is, after the mandatory introduction in such institutions in 2015 of accrual accounting. The paper regresses the gender of the audit team chair with the number of remarks in the unqualified audit reports that are assumed to be a measure of audit quality.

The results from the Italian context provide evidence that supports the research hypothesis. In Italian public HEIs, high-quality audit reports (i.e., those with more remarks) are more likely to be issued by female auditors.

Our empirical findings both contribute to the literature and have implications for practice. In terms of the former, the paper reconciles two important theories (i.e., Institutional Logic and Ethic of Care) and provides first insights on audit quality affecting the likelihood that a female auditor has chaired the audit team in a setting characterised by low litigation risk. As far as implications for practice are concerned, regulators should learn from our theoretical background that it is possible to predict whether a female auditor has chaired the team from the number of remarks in the audit reports. To the extent that it is more likely in low-litigation risk environments that female auditors issue more accurate audit reports, HEI planners and administrators should understand the importance not only of enhancing trust in the statutory audit (Ratzinger-Sakel & Schönberger, 2015) but also of other factors such as the gender composition of the audit team. This is particularly significant for practice, considering that auditors have a fiduciary duty to limit account-

ing choices to ensure that managers respect accounting standards (Filip et al., 2015).

Indeed, our empirical findings provide evidence for only low-litigation risk environments, which is a limitation of this paper. Future studies might use the same model to investigate high-litigation risk environments and may find that an increase in remarks (i.e., audit quality) should negatively affect the probability that female auditors have chaired the team.

The rest of the paper is structured as follows. Section 2 presents the theoretical background, literature review, and hypothesis development. Section 3 presents the methodology. Section 4 details the sample selection and descriptive statistics. Section 5 presents the research results. Section 6 concludes the paper with a discussion of limitations as well as directions for further research.

2. Theoretical background, literature review, and hypothesis development

2.1. Theoretical background

Differences between men and women have been the subject of empirical investigations by several disciplines from many analytical perspectives. For instance, it is recognised that men display a greater tendency to operate individually, to have better spatial orientation (Burstein et al., 1980), and to focus better on objects (so-called "tunnel vision"; Pease & Pease, 2000). To the contrary, women tend to perform better at verbal communication, creating connections with others, and decoding non-verbal language (e.g., Rosenthal & DePaulo, 1979).

Most such differences are attributed to biology. Clinical studies have shown differences between genders in terms of chromosomes and hormones and how the cerebral hemispheres function. Thus, the development of gender-specific medicine (Legato & Bilezikian, 2004), which aims to study the influence of sex and gender on human physiology, pathophysiology, and pathology is not new.

Despite the importance of biology, a significant body of literature maintains that it can only partially explain the differences between women and men. A further explanation of such differences is theorised by the Institutional Logic perspective and the Ethics of Care Theory that constitute the theoretical foundation of this study.

According to the Institutional Logic perspective, environmental factors (e.g., Brizendine, 2006; Nicholson, 1984; Putrevu, 2001) explain the differences between men and women. According to scholars adopting this theory (Friedland & Alford, 1991; Jackall, 1988; Thornton & Ocasio, 1999), multiple and competing logics influence the institutional environment, give identity to social actors (individuals, groups, and organisations), and inspire their behaviour. According to Acker (1990, p. 147), organisational structures are not gender-neutral. Instead, gender is implicated in the ongoing processes of creating and conceptualising social structures, including complex organisations, of which it represents a fundamental element in organisational logic. This is manifested daily and both explicitly and implicitly appears in work rules and practices (Archer, 1990; Britton, 1997). Within the same field, according to the Social Role Theory (Eagly, 1987, 1997), men's and women's attitudes and personality differences often reflect traditional gender roles. The structural pressures of families, organisations, and communities can drive men and women to behave in different ways (Dulin, 2007), which would explain the tendency of men to pursue self-focused goals and of women to emphasise interpersonal affiliations and harmonious relationships.

Not only different environments but also orientations to moral conflict support this view of differences between men and women. In this regard, according to the Ethics of Care Theory, men and women have different orientations toward moral conflict (Gilligan, 1982). Females show a particular inclination towards relations, welfare, and well-being and therefore manifest a stronger care orientation, whereas males typically emphasise justice, rights, and obligations to resolve conflicts. However, both males and females are capable of considering both perspectives, indicating the possibility of justice-oriented females and care-oriented males. A growing body of research has embraced the Ethics of Care Theory, even given evolutionary perspectives (e.g., Held, 2006; Tronto, 1993), although this approach has also prompted several criticisms (e.g., Donleavy, 2008). The relevant importance of these studies lies in isolating gender differences from other explanatory factors that can affect moral orientation (Donleavy, 2008).

2.2. Literature review

According to the literature, the implications of gender for accounting research are completely different and depend on the view adopted to build gender constructions. Welsh (1992) argued that such a construction contains two competing biases: alpha bias and beta bias. In focusing on male-female dif-

ferences and arguing that women are "emotional" compared to men, who are "reasonable", the first bias opens up research opportunities on differences in men's and women's roles in society in general, not just in the accounting and auditing fields. The second bias minimises or ignores differences and emphasises gender neutrality in organisations.

The resulting academic debate has shown how gender really matters in accounting and more specifically in auditing, supporting the arguments of the first bias. In this field, the literature has provided insights into the importance of scrutinising and understanding audit quality at the individual auditor level (Gul et al., 2013). Behavioural differences between male and female auditors (Hottegindre et al., 2017) should lead scholars to investigate the likelihood that a female auditor has audited an annual report or a budget with more remarks (audit quality) than a male auditor. This paper attempts to explore this question, whereas existing studies have focused on other aspects, sometimes yielding inconsistent findings.

The number of studies dealing with similar questions is very low; only three studies (Feng, 2020; Gomez et al., 2020; Reheul et al., 2017) focus on public administration and non-profit organisations. Gomez et al. (2020) found that gender influences the audit opinion received. Reheul et al. (2017) investigated the associations among individual auditor characteristics (gender, experience, and sector expertise) and audit opinions in Belgian non-profit organisations. Feng (2020) used a sample of US non-profit organisations to investigate whether individual auditor characteristics such as gender are associated with audit quality. According to those findings, female auditors are more likely to report internal control deficiencies and issue qualified audit opinions to non-profit organisations. All these studies support Welsh's (1992) thesis that male-female differences really matter in accounting, explaining why audit quality changes with the auditor's gender. According to Ittonen et al. (2013, p. 206), gender differences in cognitive information processing, diligence, conservatism, overconfidence, and risk tolerance may have important implications for the audit process and auditor judgments, and thus ultimately for the quality of the audited financial information. In terms of innate characteristics, women are considered to be more prudent and risk-averse (Byrnes et al., 1999). In addition, women can provide more detailed information, process more available information cues, and rely less on heuristics than men (Meyers-Levy, 1986). All these features might be enough to hypothesise that female auditors are more accurate than men in auditing; however, our theoretical background suggests that not only biological differences affect the relationship between audit quality and gender diversification, as other factors might affect such a relationship positively or negatively.

These additional factors can increase or decrease the likelihood that high-quality audit reports are issued by an audit team chaired by a female or a male auditor.

Among these factors we include the external environment and the country's litigation risk environment (Bepari et al., 2022). The literature has documented that the auditing environment and the strength of accounting enforcement activity might influence accounting conservatism (André et al., 2015; Brown et al., 2014). This paper assumes that the features of the external environment might affect the relationship between audit quality and the gender of the audit team's chair. This is consistent with Wajcman and Martin's (2002) thesis that male and female leadership styles tend to be similar, with some differences that largely depend on context. Focusing on the Chinese setting, according to Yang et al. (2018), with the support of empathy theory and gender role socialisation theory, female presence in the audit team reduces audit quality due to the influence of Chinese culture on the relationship between gender diversity and audit quality. More specifically, women are more likely to engender mentality and behaviour tendencies of empathetic concern for others, paying more attention to democratic decision-making and interpersonal relationships. In showing hesitance and being more susceptible than men to outside interference, these cultural factors lead women to be less efficient in practice, which in turn reduces their audit quality.

In addition to the cultural values of a specific background, the second factor possibly affecting the relationship between audit quality and gender diversity is the country's litigation risk environment (Sun & Liu, 2011). In our view, litigation rate explains the differences between men and women, taken together with other factors theorised by the Institutional Logics perspective. According to Hossain et al. (2016), environment contextualises behavioural theories on gendered decision-making, specifically arguing that a country's litigation risk environment will impact auditors' decision-making and that risk-taking differences between males and females may be relevant in this context. For this reason, female auditors' risk aversion in the Australian context may lead them to produce audit reports with opinions of lower quality than males to avoid the scrutiny accompanying a going concern opinion or the risk of the client switching auditors.

Therefore, to examine the relationship between audit quality and the likelihood that the audit team chair is a woman, both intrinsic characteristics of men and women and additional environmental factors should be considered. In our view, these factors might positively or negatively affect the relationship between audit quality and the probability that female auditors issue higher-quality audit reports.

2.3. Hypothesis formulation

The literature to date offers contradictory results regarding the relationship between audit quality and gender. One strand of the literature supports the thesis that an improvement in audit quality increases the likelihood that a female auditor is the chair of the audit team (e.g., Hardies et al., 2012, 2016; Ittonen et al., 2013; Niskanen et al., 2011; Sun et al., 2011). In our view, this is possible in two cases. The first is when the innate characteristics of women prevail over other environmental factors, even though these factors counter the audit quality of the female auditor in the case of countries or sectors with high litigation risk. The second case is when these additional factors increase the positive effect on audit quality already produced by women's innate characteristics, especially in countries or sectors with low litigation risk. If these innate characteristics are not enough to counter these factors, the audit quality of the female auditor would be lower. This might explain the findings of scholars who have determined that male auditors produce higher-quality audit reports than female auditors (Chung & Monroe, 2001; Gold et al., 2009; Hossain et al., 2016; Yang et al., 2018; Ye & Yu, 2011; Zhang et al., 2014).

Therefore, the external environment might influence whether an increase in audit quality corresponds to a female auditor as audit team chair. This study focuses on Italy. According to Vanstraelen (2002), litigation rates in continental Europe are somewhat lower than in the US and the UK (Gietzmann & Quick, 1998; Kinney, 1994; Mueller et al., 1994). The fact that Italy is a continental country with a low litigation risk should make it easier for women to produce high-quality audit reports, considering the lower risk of being scrutinised than in Anglo-Saxon countries and women's aptitude for performing better than men. In other words, this country feature should complement women's innate characteristics, increasing the likelihood that female auditors issue high-quality audit report. As to the sector, the limited litigation risk associated with the industry should also increase audit quality. In this regard, in the context of Italian HEIs, the auditors are not removed by the client; they remain in office for a maximum of four years, renewable for a maximum of an additional four years. The chair is a state lawyer or a magistrate of the court of auditors selected by the HEI, while the other two members are appointed from among managers and officials of the Ministry of Economy and Finance and the Ministry of University and Research. Consequently, their role gives them greater freedom because they come from institutional bodies responsible for external control. For all these reasons, in Italian public HEIs, the risk of facing the scrutiny that accompanies a going concern, qualified, or unqualified opinion with several (non-significant) remarks is far lower than that

in other countries or with private firms. Similarly, in this context, the risk of the client's switching auditors is low compared to private firms or other settings.

It is therefore reasonable to expect that the innate characteristics of women and external factors such as the litigation risk of the country and the sector analysed, as well as the low probability of being scrutinised in these environments (country and sector) after the issuance of the audit report, are expected to complement each other and produce a positive effect on the likelihood that high-quality audit reports are issued by a team chaired by a female auditor. Therefore, the research hypothesis of this paper is as follows:

H_1: Ceteris paribus, in Italian public HEIs, an increase in audit quality positively affects the likelihood that the audit report is issued by a team chaired by a female auditor.

3. Research design

Because of the difficulties in measuring audit quality, the number of remarks in the unqualified audit reports is assumed to be a proxy of audit quality to the extent that the higher the number of remarks in the audit report, the more accurate the audit process. The use of this proxy has been taken from the empirical work of Leventis and Caramanis (2005), according to whom there is a positive correlation between "subject to" opinions and audit effort (Houghton & Jubb, 1999; Palmrose, 1986) or audit quality. According to their second hypothesis, the audit effort for an audit varies in direct proportion to the number of remarks in the audit report. This is justified by an increase in tests when the auditors find errors and/or irregularities that must be indicated in the audit report (Houghton & Jubb, 1999) and by the additional time spent auditing transactions as a defence against any potential litigation (Lys & Watts, 1994). Of course, in making this assumption, we will control in our model for the geographical location of the entities and for other factors that might influence the number of remarks in the audit report. In this research, the focus will be on unqualified audit reports for the budgets and the annual reports of a sample of Italian HEIs. The Italian setting is relevant to studies on public-sector accounting (Ibrahim et al., 2019; Langella et al., 2021). The segment of Italian public HEIs is of particular interest. By focusing on this context, Mazzotta et al. (2020) studied board composition and gender sensitivity approaches in Italian universities.

To test our research hypothesis, we used a model capable of determining whether an increase in audit quality affects whether a woman is responsible for

the audit process. We use a non-linear logit model whose dependent variable is a dummy identifying the gender of the person signing the audit report and is therefore responsible for the audit process (FM). Among the independent variables in the first specification, the model includes the number of remarks within the unqualified audit report (NR) and several other independent control variables that avoid biases to regression estimates due to the omission of regressors. These variables control for different characteristics of the entities analysed, the type of documents analysed (budget or annual report), the number of years an auditor has served the same client (tenure), and features regarding the audit report, as well as its length in number of pages. In the second and third specifications, the models distinguish formal (NFR) and substantial (NSR) remarks to test whether not only the number but also the kind of remarks affect the probability that a female auditor has chaired the audit team. For instance, while the non-compliance of accounting items of financial statements with regulatory provisions is a typical subject of a formal remark, the incorrect and/or lack of recognition of a balance sheet item is a common substantial remark as well.

The specifications used are the following:

$$\text{Log(FM)}=\alpha_0+\alpha_1 NR_{dit} + \alpha_2 DOC_{it} + \alpha_i \text{ control variables} + \alpha_j \text{ fixed effects} + \varepsilon_{dit} \quad (1)$$

$$\text{Log(FM)}=\alpha_0+\alpha_1 NFR_{dit} + \alpha_2 DOC_{it} + \alpha_i \text{ control variables} + \alpha_j \text{ fixed effects} + \varepsilon_{dit} \quad (2)$$

$$\text{Log(FM)}=\alpha_0+\alpha_1 NSR_{dit} + \alpha_2 DOC_{it} + \alpha_i \text{ control variables} + \alpha_j \text{ fixed effects} + \varepsilon_{dit} \quad (3)$$

Table 1 reports details regarding variable identification and measurement.

Table 1 – Variable definitions

Name	Symbol	Description	Source
Dependent variable			
Female/male auditor	FM	1 if the audit team has been chaired by a female auditor and 0 otherwise	Audit report
Independent variables			
Number of remarks	NR	Number of (non-significant) remarks in the unqualified audit reports	Audit report
Number of formal remarks	NFR	Number of formal remarks	Audit report
Number of substantial remarks	NSR	Number of substantial remarks	Audit report
Document	DOC	Type of document analysed. 1 if the document is the annual report and 0 for the budgets	Annual reports and budgets

Additional control variables			
Pages of the audit report	PG	Number of pages of the auditor reports	Audit report
Size	S	Size of the entity. 1 in case of medium, big or very big HEIs and 0 in case of small HEIs	Ministry of University and Research
Geographic distribution	G	Geographical distribution of the entity analysed. 1 if the HEI is located in the north or the centre of Italy and 0 otherwise	Ministry of University and Research
Ordinary financing fund	OFF	Ordinary financing funds received by the HEI by the central government	Ministry of University and Research
Profit of loss	PLY	Profit or loss of the year	Annual reports and budgets
Liquidity	L	Client's financial health in terms of liquidity, calculated scaling the current assets and the current liabilities	Annual reports and budgets
Solidity	SL	Client's financial health in terms of solidity, calculated scaling book value and total assets	Annual reports and budgets
Tenure	T	Tenure of the auditor - the number of years serving as an auditor for the same client	Audit report
Fixed effects	Fixed effects	Dummies that control for time effect	-

The table discloses the symbols used to identify the variables of equations (1-3); it describes each of them; it tabulates the source of such variables and the type of variables (i.e., dummy, integer, rational). Subscripts d, i and c stand for the document, the entity and the year analysed.

Our research hypothesis is verified if the regression coefficient α_1 is positive and statistically significant. Behind logit positive values of a regression coefficient, there is an increase in the probability of the event associated with a positive change in the predictor. In our case, this suggests that an increased number of remarks in the auditor reports increases the probability that the key audit partner is a woman. The fact that the regression coefficient is expected to be statistically significant suggests that an increase in such remarks has an effect greater than null on such probability. Such results should validate the hypothesis that it is more probable that the audit reports with high audit quality are those signed by female auditors.

4. Sample selection and descriptive statistics

According to the Ministry of University and Research (MUR), there are currently 67 public HEIs in Italy. Table 2 summarises the sample selection and provides information regarding the size and geographical location of the entities analysed.

Table 2 – Search strategy, size and geographic location

Search strategy (panel a)	**No. of observations**
Number of Italian public HEIs	67
- Entities with missing data	-31
= Final sample	**36**

Panel a) describes the sample selection strategy. Starting from the 67 Italian public HEIs, after eliminating entities with missing data, the final sample number is 36 public HEIs that have been analysed over the period 2016-2018. The missing data issue is due to the absence on the HEIs' website of the annual report or budget or data required to test our hypothesis.

Size and geographic location (panel b)	**NR**	**NFR**	**NSR**	**PG**
CENTRE OF ITALY	**0.78**	**0.56**	**0.24**	**9.67**
BIG HEIS				
Perugia	0.17	0.17	-	11.17
Roma (Tor Vergata)	2.00	1.83	0.17	10.67
MEDIUM HEIS				
Siena	2.33	0.83	1.50	9.17
Ancona (Politecnica delle Marche)	-	-	-	8.00
VERY BIG HEIS				
Firenze	0.17	0.17	-	7.17
Roma (La Sapienza)	-	-	-	11.83
SMALL HEIS				
Pisa (Scuola Normale Superiore)	-	-	-	5.50
Viterbo (Università degli Studi della Tuscia)	1.17	0.67	0.50	10.83
Camerino	1.33	1.17	0.17	8.17
Cassino e del Lazio Meridionale	0.50	0.67	-	13.67
Perugia (Università per stranieri)	0.67	0.50	0.17	9.33
Siena (Università per stranieri)	1.00	0.67	0.33	10.50
ISLANDS	**1.00**	**0.67**	**0.33**	**9.28**

BIG HEIS				
Messina	0.50	-	0.50	12.00
Palermo	1.17	1.00	0.17	9.17
VERY BIG HEIS				
Catania	1.33	1.00	0.33	6.67
NORTH OF ITALY	**0.68**	**0.48**	**0.20**	**12.81**
BIG HEIS				
Torino (Politecnico)	-	-	-	6.00
Milano (Bicocca)	0.17	0.17	-	9.33
Modena e Reggio Emilia	0.67	0.67	-	4.50
Parma	0.83	-	0.83	21.00
Pavia	0.67	0.50	0.17	8.17
Verona	1.17	0.67	0.50	19.83
MEDIUM HEIS				
Torino (Piemonte orientale)	1.00	1.00	-	12.17
Brescia	0.50	-	0.50	6.50
Ferrara	1.67	1.50	0.17	9.67
Trieste	0.33	0.33	-	22.67
VERY BIG HEIS				
Bologna	0.67	0.33	0.33	14.17
Padova	1.00	1.00	-	11.00
Torino	0.83	0.50	0.33	16.17
SMALL HEIS				
Varese (Insubria)	-	-	-	18.17
SOUTH OF ITALY	**1.21**	**0.69**	**0.52**	**11.02**
BIG HEIS				
Università degli studi di Salerno	0.33	-	0.33	10.67
MEDIUM HEIS				
Napoli (Parthenope)	1.33	0.33	1.00	18.33
Napoli (L'Orientale)	3.33	2.50	0.83	5.33
VERY BIG HEIS				
Bari	0.17	-	0.17	16.17

SMALL HEIS				
Bari	1.17	0.33	0.83	5.00
Benevento	1.33	0.83	0.50	7.17
Teramo	0.83	0.83	-	14.50
TOTAL	**0.84**	**0.56**	**0.29**	**11.12**

Panel b) provides the geographical location of the entities analysed distinguishing the very big, big, medium and small HEIs. For each of them, it provides the mean of NR, NFR, NSR and PG.

Panel a) of Table 2 summarises our sample selection strategy. Unfortunately, not all the information required to implement the research protocol of this paper is available. Thus, moving from an initial sample of 67 Italian public HEIs after the elimination of 31 HEIs with missing data, the final sample numbered 36 entities. Some data is missing because of the absence on the HEI website of the annual report or budget or information required to test our hypothesis.

For this HEI websites, the budgets, annual reports, and auditor reports from 2016-2018 were downloaded. General information regarding size, geographical distribution of the HEIs analysed, maturity of accrual accounting, FFO, annual profits and losses, and client financial health in terms of liquidity and solidity were hand-collected from the budgets and annual reports. From the auditor reports, information regarding auditors' tenure, number of pages (a proxy for document length), auditors' opinions, number and nature of adjustments required by the auditor, gender composition of the auditor team, and the names of those within the team responsible for the audits and who signed the reports were hand-collected.

The methodological choice to focus on the period 2016-2018 was made because of possible biases typical of the first year of accrual accounting implementation (2015). Panel b) of Table 2 lists the HEIs analysed and tabulates some general information regarding size and geographical distribution and information hand-collected from the available documents on their websites. Geographical distribution is particularly important for the literature, given that the nature of emancipation will vary across different social, political, and geographical contexts (Haynes, 2017), and that the external environment might also influence the relationship between audit quality and gender diversity (e.g., Wajcman & Martin, 2002; Yang et al., 2018). Actually, the number of remarks varied significantly across different Italian regions, ranging from 0.68 in the north to 1.21 in the south. Table 3 provides descriptive statistics of the information collected from the auditor reports.

Table 3 – Descriptive statistics

	N. of FYO	Mean	Median	Std. dev.	Minimum	Maximum
FM_{it}	216	0.08	0.00	0.27	0.00	1.00
NR_{it}	216	0.84	0.00	1.24	0.00	7.00
NFR_{it}	216	0.56	0.00	0.88	0.00	4.00
NSR_{it}	216	0.29	0.00	0.68	0.00	4.00
PG_{it}	216	11.12	10.00	6.61	1.00	29.00
DOC_{it}	216	0.50	0.50	0.00	0.00	1.00
S_{it}	216	0.72	1.00	0.45	0.00	1.00
OFF_{it}	216	110.05	89.00	96.53	7.85	457.36
PLY_{it}	216	4.88	1.79	13.33	-73.40	85.68
T_{it}	216	3.42	3.00	1.73	1.00	8.00
L_{it}	216	8.16	6.69	6.72	0.20	31.83
SL_{it}	216	0.45	0.48	0.41	0.01	3.62

Table 3 shows the number of firm-year observations (FYO), the mean, the median, the standard deviation, the minimum and the maximum values of variables used in this research to test the research hypothesis.

The table lists data collected from the auditor reports, the budgets, and the annual reports of the entities analysed. It suggests that there are 0.84 remarks in each auditor report on average, with some reports without remarks and some reports with a maximum of seven remarks. Formal remarks are more common than substantial remarks. Data reveals that auditor reports number 11 pages on average and that they vary in length because the minimum and the maximum number of pages were one and 29, respectively.

Table 4 reports the linear correlation coefficients.

Table 4 – Correlation matrix

	FM_{it}	NR_{it}	NFR_{it}	NSR_{it}	PG_{it}	OFF_{it}	PLY_{it}	T_{it}	L_{it}	SL_{it}
FM_{it}	1.00									
NR_{it}	0.13**	1.00								
NFR_{it}	0.05	0.84***	1.00							
NSR_{it}	0.18***	0.73***	0.24***	1.00						
PG_{it}	0.03	0.02	-0.06	0.12*	1.00					
OFF_{it}	0.25***	-0.13**	-0.12*	-0.09	0.08	1.00				
PLY_{it}	-0.03	-0.08	-0.08	-0.03	0.11*	0.32***	1.00			
T_{it}	-0.19***	-0.01	-0.07	0.08	0.03	-0.08	-0.07	1.00		
L_{it}	-0.21***	-0.07	-0.13	0.03	-0.04	-0.10	-0.08	0.04	1.00	
SL_{it}	-0.14***	-0.03	-0.05	-0.02	0.01	0.21***	0.23***	-0.04	0.21***	1.00

Table 4 shows the linear correlation coefficients. The meanings of the variables are the same as in the previous table. (***) denotes a 1% level of significance of the correlation coefficient; (**) denotes a 5% level of significance of the correlation coefficient; (*) denotes a 1% level of significance of the correlation coefficient.

The table suggests that some coefficients are statistically significant at 1%. The low value of the correlation between regressors should not bias the research results. Also, the values of the variance inflation factors (VIF) of the correspondent linear intercept model (not tabulated) are low and provide evidence that multicollinearity does not bias the results.

5. Results

The results tabulated in Table 5 show that the coefficient of the number of remarks (NR) is positive and statistically significant at a 5% level, providing evidence that, *ceteris paribus*, an increase in audit quality for Italian public HEIs increases the likelihood that the audit team is chaired by a female auditor.

Table 5 – Main findings (equation 1)

Number of obs	216
LR chi2(8)	60.69 (***)
Prob > chi2	0.00
Pseudo R^2	0.51
Ramsey (1969) reset test	0.45

	Coefficient	**Std. Err.**	**z**	**95% conf. Interval**
NR_{it}	0.59 (**)	0.28	2.08	0.03 – 1.15
PG_{it}	-0.15	0.06	-0.24	-0.14 – 0.11
DOC_{it}	-0.33	0.83	-0.40	-1.95 – 1.29
S_{it}	-2.73	1.41	-1.94	-5.49 – 0.03
OFF_{it}	0.03 (***)	0.01	3.21	0.01 – 0.05
PLY_{it}	-0.02	0.02	-1.10	-0.06 – 0.02
T_{it}	-0.86 (***)	0.33	-2.65	-1.50 – -0.23
L_{it}	-1.13 (***)	0.42	-2.69	-1.95 – -0.31
SL_{it}	-0.72	0.68	-1.06	-2.05 – 0.61
$dY1_i$	-0.06	0.98	-0.06	-1.98 – 1.86
$dY2_i$	-0.60	0.94	-0.64	-2.45 – 1.24
Intercept	0.93	1.38	0.67	-1.78 – 3.65

Table 5 shows the regression parameters estimated by using equation (1). The meanings of the variables are the same as in the previous table. (***) denotes a 1% level of significance of the regression parameter; (**) denotes a 5% level of significance of the regression parameter.

This is in agreement with those scholars supporting the thesis that female auditors are more accurate than male auditors (e.g., Hardies et al., 2012, 2016; Ittonen et al., 2013; Niskanen et al., 2011; Sun et al., 2011) because of their greater tendency to report internal control deficiencies (Feng, 2020). The findings also suggest that an increase in length of tenure (T) negatively affects the probability that a female auditor chairs the audit team. The coefficient of this control variable suggests that when tenure increases, the probability that a female auditor chairs the audit team decreases, indicating the longest mandates are more commonly those with a male auditor at the head of the audit team.

Table 5 also suggests also that the model is globally significant. Actually, the chi-square test of the regression coefficients associated with the depend-

ent variables is significant (p-value<1%), confirming that the model with the intercept alone is not sufficient to explain the logarithm of the odds for the gender of the person responsible for the auditing of annual reports or budgets. Finally, the Ramsey (1969) reset tests for the corresponding linear models cannot reject the hypothesis that the models have no omitted variables.

In Tables 6 and 7, we distinguish formal from substantial remarks.

Table 6 – Main findings (equation 2)

Number of obs	+216
LR chi2(8)	+56.56 (***)
Prob > chi2	+0.00
Pseudo R^2	+0.48
Ramsey (1969) reset test	0.23

	Coefficient	**Std. Err.**	**z**	**95% conf. Interval**
NFR_{it}	+0.17	+0.37	+0.45	-0.55 – 0.89
PG_{it}	-0.02	+0.06	-0.41	-0.14 – 0.09
DOC_{it}	+0.01	+0.77	+0.02	-1.49 – 1.52
S_{it}	-1.79	+1.21	-1.48	-4.15 – 0.57
OFF_{it}	+0.03 (***)	+0.01	+3.20	0.01 – 0.05
PLY_{it}	-0.03	+0.02	-1.45	-0.06 – 0.01
T_{it}	-0.72 (**)	+0.29	-2.48	-1.28 – -0.15
L_{it}	-1.07 (***)	+0.39	-2.76	-1.83 – -0.31
SL_{it}	-0.65	+0.68	-0.96	-1.98 – 0.68
$dY1_i$	+0.38	+0.90	+0.42	-1.39 – 2.16
$dY2_i$	-0.12	+0.86	-0.13	-1.80 – 1.57
Intercept	+0.78	+0.87	+0.60	-1.76 – 3.33

Table 6 shows the regression parameters estimated by using equation (2). The meanings of the variables are the same as in the previous table. (***) denotes a 1% level of significance of the regression parameter; (**) denotes a 5% level of significance of the regression parameter.

Table 7 – Main findings (equation 3)

Number of obs	216
LR chi2(8)	68.82 (***)
Prob > chi2	0.00
Pseudo R^2	0.58
Ramsey (1969) reset test	0.28

	Coefficient	**Std. Err.**	**z**	**95% conf. Interval**
NSR_{it}	+2.34 (***)	+0.83	+2.79	0.69 – 3.98
PG_{it}	-0.01	+0.07	-0.12	-0.15 – 0.14
DOC_{it}	-1.23	+1.01	-1.22	-3.22 – 0.76
S_{it}	-4.05 (**)	+1.67	-2.42	-7.32 – -0.77
OFF_{it}	+0.04 (***)	+0.01	+3.27	0.01 – 0.06
PLY_{it}	-0.03	+0.02	-1.31	-0.06 – 0.01
T_{it}	-1.06 (**)	+0.41	-2.58	-1.87 – -0.26
L_{it}	-1.22 (***)	+0.46	-2.63	-2.12 – -0.31
SL_{it}	-0.34	+0.70	-0.48	-1.71 – 1.04
$dY1_i$	-0.13	+1.05	-0.12	-2.19 – 1.93
$dY2_i$	-0.80	+1.02	-0.79	-2.81 – 1.20
Intercept	+1.94	+1.52	+1.27	-1.04 – 4.91

Table 7 shows the regression parameters estimated by using equation (3). The meanings of the variables are the same as in the previous table. (***) denotes a 1% level of significance of the regression parameter; (**) denotes a 5% level of significance of the regression parameter.

The results suggest that only when we use the substantial remarks as a proxy of audit quality does the research hypothesis continue to be validated.

While in Table 6 the variable NFR is not statistically significant, in Table 7 the variable NSR is positive and statistically significant at 1%. This should suggest that the results tabulated in Table 5 are due to substantial rather than formal remarks.

For robustness checks, we did several sensitivities. First, we have tested the Granger (1969) causality to clarify the direction of the relationship and to exclude reverse causality. In particular, we are interested in deepening the direction of causality and in excluding that Y Granger causes X. Second, we have tested for the presence of a moderating effect produced by the size and the localization of the entities analysed. In this case, by using two-equation

models, we have added to our regression model the interaction variables NRxMEGA and NRxNORD, where MEGA is a dummy variable equal to 1 in case the HEIs are recognised as very large and 0 otherwise, and NORD is a dummy variable equal to 1 in case the HEI is located in the north of Italy and 0 otherwise. Third, we have extended the period investigated to increase the number of firm-year observations and to avoid potential biases caused by limited sample size.

The results of the first test suggest that the dummy controlling for the gender of the president of the audit team does not cause the variable that controls for the number of remarks in the audit report, validating the goodness of the direction of causality investigated in this paper (Granger, 1969). In particular, regressing the variable NR on the dependent variable FM and the other independent variables in our model (including the lagged values), we fail to reject the null hypothesis that FM and the other explicative variable do not cause the variable NR.

The findings of the second test suggest that the interaction terms NRxMEGA and NRxNORD are not statistically significant, indicating that there is no evidence of moderating effects from the size and the localization of the HEIs on the capability of the number of remarks affecting the probability that a female auditor has chaired the audit team. The *p*-values of the interaction terms are 46,3% and 98,8%, respectively. Such values do not reject the hypothesis that the size and localization of the entity drive the relationship tested with our logistic model between NR and the probability that FM is equal to 1.

The findings of the last test suggest that extending the period investigated to 2019, 2020, and 2021 confirms the results of the main analysis. We have not adopted this extended time frame in the main analysis for at least two reasons: first, to avoid biases produced by specific reporting choices and/or audit procedures due to the COVID-19 outbreak, and second, despite the number of firm-year observations increasing from 216 to 420, the number of HEIs analysed has decreased from 36 to 35 because of missing data.

6. Conclusions

In this paper we have investigated whether an increase in audit quality measured by the number of remarks in unqualified audit reports positively affects the probability that a female auditor has chaired the audit team. Our research question is motivated by evidence in the literature that not only biological differences (e.g., Legato & Bilezikian, 2004) exist between men and

women, but also by other factors that can account for their different behaviours.

The research hypothesis that an increase in remarks in the audit reports positively affects the probability that a female auditor has chaired the audit team supports the Ethic of Care Theory (Gilligan, 1982), according to which a different orientation to moral conflict is one possible factor explaining the difference between men and women. In auditing, the conflict is represented by litigation risk that can affect audit quality (Sun & Liu, 2011). Litigation risk is not only client-specific (Sun & Liu, 2011) but is also related to sectors and countries like Italy characterised by low litigation risk (Vanstraelen, 2002). To this extent, the research hypothesis also follows the Institutional Logics perspective (Friedland & Alford, 1991; Jackall, 1988; Thornton & Ocasio, 1999), not only because of personal orientation to moral conflict but also the characteristics of the institutional environment. For instance, in a setting characterised by low litigation risk, the probability of being scrutinised after the issuance of an audit report with several remarks is lower than in settings characterised by high litigation risk.

The findings of the paper validate our hypothesis. Therefore, in a low-litigation risk setting, female auditors seem to issue higher-quality audit reports more often than their male counterparts. The innate characteristics of women and external factors such as the litigation risk of the country and the sector analysed, as well as the low probability of being scrutinised in these environments (country and sector) after the issuance of the audit report, are expected to complement each other, producing a positive effect on the likelihood that high-quality audit reports are issued by a team chaired by a female auditor.

The results thus contribute to the literature and are relevant to practice. As to the value added to existing knowledge with respect to context affecting audit outcome, this paper has proposed a novel research question in several aspects. First, scholars have examined the number of remarks in the audit reports only with going-concern, “subject to” or “except for” opinions, while this paper focused on unqualified remarks. Indeed, there are remarks whose number can be considered a proxy of the care dedicated to the audit. Second, focusing on audit opinions, scholars have studied different relationships with respect to that examined in this paper, including the attitude of remarks affecting audit report lag (Leventis et al., 2005), audit effort (Leventis & Caramanis, 2005), and audit fees paid by the client (Cohen & Leventis, 2013). Third, studies focusing on a setting characterized by low litigation risk is less common.

In terms of practice, these findings are relevant in that they validate the assumption that in a low-litigation risk setting, there is a trade-off between the level of litigation risk and the number of remarks in audit reports issued by female auditors. Therefore, the audit outcome depends not only on the application of auditing standards but also on the gender of the person chairing the audit team. With specific reference to our sample, practitioners can see that in Italian public HEIs, the gender of the person chairing the audit team can influence the outcome of the auditing process. *Ceteris paribus*, according to availability to receive remarks in unqualified audit reports, HEIs operating in a low litigation country in particular will indicate a man or a woman at the head of the audit team. Considering that in such countries it is more probable that female auditors issue audit reports with more remarks than male auditors, those HEIs not receiving many remarks will indicate that male auditors chair the audit teams.

Despite its interesting results, this paper suffers from some limitations that can be addressed in future studies. Such limitations are due not only to the absence of databases with more extensive selections but also to difficulties in finding data in online documents. Regarding these limitations, this paper has not verified if its main assumption is correct, namely if the same results may be seen in public HEIs in other countries which, like Italy, are characterised by a relatively low litigation risk and by a low probability of the auditors being scrutinised after issuance of the audit report. Investigating other continental countries like Italy, future studies might test whether remarks (i.e., audit quality) continue to be more probable when a female auditor chairs the audit team. In addition, this paper has assumed that contrasting results may be expected only in countries with high litigation rates and a high probability of being scrutinised after the issuance of the audit report. Future studies therefore might test whether in such settings, remarks are more probable when a male auditor chairs the audit team.

References

Acker, J. (1990). Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & Society*, *4*(2), 139-158. -- https://www.jstor.org/stable/189609.

Alareeni, B. A. (2019). The associations between audit firm attributes and audit quality-specific indicators: A meta-analysis. *Managerial Auditing Journal, 34*(1), 6-43. Doi: 10.1108/MAJ-05-2017-1559.

André, P., Filip, A., & Paugam, L. (2015). The effect of mandatory IFRS adoption on conditional conservatism in Europe. *Journal of Business Finance & Accounting, 42*(3-4), 482-514. Doi: 10.1111/jbfa.12105.

Archer, J. (1990). Gender-stereotypic traits are derived from gender roles: A reply to McCreary. *British Journal of Social Psychology*, 29(3), 273-277.

Bepari, M. K., Mollik, A. T., Nahar, S., & Islam, M. N. (2022). Determinants of accounts level and entity level key audit matters: Further evidence. *Accounting in Europe*, *19*(3), 1-26. Doi: 10.1080/17449480.2022.2060753.

Britton, D. M. (1997). Gendered organizational logic: Policy and practice in men's and women's prisons. *Gender & Society*, *11*(6), 796-818. -- https://www.jstor.org/stable/190150.

Brizendine, L. (2006). *The female brain*. Morgan Road Books.

Brown, P., Preiato, J., & Tarca, A. (2014). Measuring country differences in enforcement of accounting standards: An audit and enforcement proxy. *Journal of Business Finance & Accounting*, *41*(1-2), 1-52. Doi: 10.1111/jbfa.12066.

Burstein, B., Bank, L., & Jarvik, L. (1980). Sex differences in cognitive functioning: Evidence, determinants, implications. *Human Development*, *23*(5), 289-313. Doi: 10.1159/000272593.

Byrnes, J. P., Miller, D. C., & Schafer, W. D. (1999). Gender differences in risk taking: A meta-analysis. *Psychological Bulletin*, *125*(3), 367-383. Doi: 10.1037/0033-2909.125.3.367.

Cohen, S., & Leventis, S. (2013). An empirical investigation of audit pricing in the public sector: The case of Greek LGOs. *Financial Accountability & Management*, *29*(1), 74-98. Doi: 10.1111/faam.12003.

Chung, J., & Monroe, G. S. (2001). A research note on the effects of gender and task complexity on an audit judgment. *Behavioral Research in Accounting*, *13*(1), 190-201. Doi: 10.2308/bria.2001.13.1.111.

Donleavy, G. D. (2008). No man's land: Exploring the space between Gilligan and Kohlberg. *Journal of Business Ethics*, *80*(4), 807-822. -- https://www.jstor.org/stable/25482183.

Dulin, A. M. (2007). A lesson on social role theory: An example of human behavior in the social environment theory. *Advances in Social Work*, 8(1), 104-112.

Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Lawrence Erlbaum.

Eagly, A. H. (1997). Sex differences in social behavior: Comparing social role theory and evolutionary psychology. *American Psychologist*, *December*, 1380-1383. Doi: 10.1177/0146167291173011.

Feng, N. C. (2020). Individual auditor characteristics and audit quality: Evidence from nonprofits in the US. *Journal of Public Budgeting, Accounting & Financial Management*, *32*(4), 551-575. Doi: 10.1108/JPBAFM-10-2019-0157.

Filip, A., Jeanjean, T., & Paugam, L. (2015). Using real activities to avoid goodwill impairment losses: Evidence and effect on future performance. *Journal of Business Finance & Accounting*, *42*(3-4), 515-554. Doi: 10.1111/jbfa.12107.

Friedland, R., & Alford, R. R. (1991). Bringing society back in: Symbols, practices and institutional contradictions. In W. W. Powell & P. DiMaggio (Eds.), *The new institutionalism in organizational analysis* (pp. 232-266). The University of Chicago Press.

Gietzmann, M. B., & Quick, R. (1998). Capping auditor liability: The German experience. *Accounting, Organizations and Society*, *23*(1), 81-103. Doi: 10.1016/S0361-3682(96)00047-5.

Gilligan, C. (1982). *In a different voice*. Harvard University Press.

Gold, A., Hunton, J. E., & Gomaa, M. I. (2009). The impact of client and auditor gender on auditors' judgments. *Accounting Horizons*, *23*(1), 1-18. Doi: 10.2308/acch.2009.23.1.1.

Gomez II, M. C. P., Sacorum, R. M. A., Lipana, R. A. M., Barawid, G. L. M., & Tugas, F. C. (2020). An analysis of factors that affect audit opinions: The case of the local government units in the Metro Luzon Urban Beltway. *DLSU Business & Economics Review*, *30*(1), 56-69.

Granger, C. W. J. (1969). Investigating causal relations by econometric models and cross-spectral models. *Econometrica*, *37*(3), 424-438. Doi: 10.2307/1912791.

Gul, A., Wu, D., & Yang, Z. (2013). Do individual auditors affect audit quality? Evidence from archival data. *The Accounting Review*, *88*(6), 1993-2023. -- https://www.jstor.org/stable/23525961.

Hardies, K., Breesch, D., & Branson, J. (2012). Male and female auditors' overconfidence. *Managerial Auditing Journal*, *27*(1), 105-118. Doi: 10.1108/02686901211186126.

Hardies, K., Breesch, D., & Branson, J. (2016). Do (fe)male auditors impair audit quality? Evidence from going-concern opinions. *European Accounting Review*, *25*(1), 7-34. Doi: 10.1080/09638180.2014.921445.

Haynes, K. (2017). Accounting as gendering and gendered: A review of 25 years of critical accounting research on gender. *Critical Perspectives on Accounting*, *43*, 110-124. Doi: 10.1016/j.cpa.2016.06.004.

Held, V. (2006). *The ethics of care: Personal, political, and global*. Oxford University Press.

Hossain, S., Chapple, L., & Monroe, G. S. (2016). Does auditor gender affect issuing going-concern decisions for financially distressed clients? *Accounting & Finance*, *11*, 1-35. Doi: 10.1111/acfi.12242.

Hottegindre, G., Loison, M., & Farjaudon, A. (2017). Male and female auditors: An ethical divide? *International Journal of Auditing*, *21*(2), 131-149. Doi: 10.1111/ijau.12084.

Houghton, K. A., & Jubb, C. A. (1999). The cost of audit qualification: The role of non-audit services. *Journal of International Accounting, Auditing & Taxation*, *8*(2), 215-240. Doi: 10.1016/S1061-9518(99)00014-2.

Ibrahim, S., Noikokyris, E., Fabiano, G., & Favato, G. (2019). Manipulation of profits in Italian publicly-funded healthcare trusts. *Public Money & Management*, *39*(6), 428-435. Doi: 10.1080/09540962.2019.1578539.

Ittonen, K., Vähämaa, E., & Vähämaa, S. (2013). Female auditors and accruals quality. *Accounting Horizons*, *27*(2), 205-228. Doi: 10.2308/acch-50400.

Jackall, R. (1988). *Moral mazes: The world of corporate managers*. Oxford University Press.

Kinney, W. R. (1994). Audit litigation research: Professional help is needed. *Accounting Horizons*, *8*(2), 80–86. https://doi.org/10.1016/S0278-4254(97)00037-9.

Langella, C., Anessi-Pessina, E., & Cantù, E. (2021). What are the required qualities of auditors in the public sector?. *Public Money & Management*, 41(6), 466-476.

Legato, M. J., & Bilezikian, J. P. (Eds.). (2004). *Principles of gender-specific medicine* (Vol. 2). Gulf Professional Publishing.

Leventis, S., & Caramanis, C. (2005). Determinants of audit time as a proxy of audit quality. *Managerial Auditing Journal*, 20(5), 460-478.

Leventis, S., Weetman, P., & Caramanis, C. (2005). Determinants of audit report lag: Some evidence from the Athens Stock Exchange. *International Journal of Auditing*, 9(1), 45-58.

Lys, T. & Watts, R.L. (1994). Lawsuits against auditors. *Journal of Accounting Research*, 32(Supplement), 65-93.

Mazzotta, R., Nardo, M. T., Pastore, P., & Vingelli, G. (2020). Board composition and gender sensitivity approach in Italian universities. *Meditari Accountancy Research, 28*(6), 1013-1036. Doi: 10.1108/MEDAR-06-2019-0517.

Meyers-Levy, J. (1986). Gender differences in information processing: A selectivity interpretation. In: Cafferata, P. and Tybout, A.M. eds., *Cognitive and Affective Responses to Advertising* (Lexington, MA: Lexington Books), 219-260.

Ministero dell'Economia e delle Finanze (2020). *Il bilancio di genere per l'esercizio finanziario 2019*. -- https://www.rgs.mef.gov.it/VERSIONE-I/attivita_istituzionali/formazione_e_gestione_del_bilancio/rendiconto/bilancio_di_genere/2019/index.html.

Mueller, G. G., Gernon, H., & Meek, G. (1994). *Accounting: An international perspective*. Burr Ridge, IL: Irwin.

Nicholson, J. (1984). *Men and women: How different are they?*. Oxford University Press.

Niskanen, J., Karjalainen, J., Niskanen, M., & Karjalainen, J. (2011). Auditor gender and corporate earnings management behavior in private Finnish firms. *Managerial Auditing Journal, 26*(9), 778-793. Doi: 10.1108/02686901111171448.

Palmrose, Z. (1986). Audit fees and auditor size: Further evidence. *Journal of Accounting Research, 24*(1), 97-110. -- https://www.jstor.org/stable/2490806.

Pease, A., & Pease, B. (2000). *Why men don't listen & women can't read maps*. Welcome Rain.

Putrevu, S. (2001). Exploring the origins and information processing differences between men and women: Implications for advertisers. *Academy of Marketing Science Review, 10*(1), 1-14. Doi: 10.1177/0146167291173011.

Ramsey, J. B. (1969). Tests for specification errors in classical linear least-squares regression analysis. *Journal of the Royal Statistical Society, Series B, 31*, 350-371. -- https://www.jstor.org/stable/2984219.

Ratzinger-Sakel, N. V., & Schönberger, M. W. (2015). Restricting non-audit services in Europe – The potential (lack of) impact of a blacklist and a fee cap on auditor independence and audit quality. *Accounting in Europe, 12*(1), 61-86. Doi: 10.1080/17449480.2015.1035290.

Reheul, A. M., Van Caneghem, T., Van den Bogaerd, M., & Verbruggen, S. (2017). Auditor gender, experience and reporting in nonprofit organizations. *Managerial Auditing Journal, 32*(6), 550-577. Doi: 10.1108/MAJ-01-2016-1296.

Rosenthal, R., & DePaulo, B. (1979). Sex differences in accommodation in nonverbal communication. In: R. Rosenthal & B. DePaulo (Eds.). *Skill in nonverbal communication* (pp. 68-103). Oelgeschlager: Gunn and Hain.

Siboni, B., Sangiorgi, D., Farneti, F., & de Villiers, C. (2016). Gender (in) accounting: Insights, gaps and an agenda for future research. *Meditari Accountancy Research, 24*(2), 158-168. Doi: 10.1108/MEDAR-04-2016-0054.

Sun, J., & Liu, G. (2011). Client-specific litigation risk and audit quality differentiation. *Managerial Auditing Journal, 26*(4), 300-316. Doi: 10.1108/02686901111124639.

Sun, J., Liu, G., & Lan, G. (2011). Does female directorship on independent audit committees constrain earnings management? *Journal of Business Ethics, 99*(3), 369-382. Doi: 10.1007/s10551-010-0657-0.

Thornton, P. H., & Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958-1990. *American Journal of Sociology, 105*(3), 801-843. Doi: 10.1086/210361.

Tronto, J. (1993). *Moral boundaries: A political argument for an ethic of care*. Routledge.

Vanstraelen, A. (2002). Auditor economic incentives and going-concern opinions in a limited litigious continental European business environment: Empirical evidence from Belgium. *Accounting and Business Research, 32*(3), 171-186. Doi: 10.1080/00014788.2002.9728966.

Wajcman, J., & Martin, B. (2002). Narratives of identity in modern management: the corrosion of gender differences. *Sociology, 36*(4), 985-1002. Doi: 10.1177/003803850203600410.

Welsh, M. J. (1992). The construction of gender: some insights from feminist psychology. *Accounting, Auditing & Accountability Journal, 5*(3), 120-132. Doi: 10.1108/09513579210017433.

Yang, S., Liu, Y., & Mai, Q. (2018). Is the quality of female auditors really better? Evidence based on the Chinese A-share market. *China Journal of Accounting Research, 11*(4), 325-350. Doi: 10.1016/j.cjar.2018.07.004.

Ye, Q. Y., & Yu, Z. B. (2011). Auditor's personal characteristics and audit quality. *Journal of Shanxi University of Finance and Economics, 33*(2), 117-124.

Zhang, Z. G., Wu, W. R., & Chen, X. Q. (2014). Research of the background characteristics of signature CPA influences audit quality: Empirical evidence from Chinese listed companies. *China Soft Science, 11*, 95-104.