Auditor Gender and Audit Fees: Malaysian Evidence

Noraizan Ripain
Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia

Wan Nordin Wan-Hussin
Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia

Mohd. Atef Md Yusof
Tunku Puteri Intan Safinaz School of Accountancy, College of Business, Universiti Utara Malaysia

Abstract

Purpose – This paper examines the relationship between auditor gender and audit fees. Additionally, the paper also examines the moderating impact of audit firm types, i.e., Big4 and non-Big4 on the relationship between auditor gender and audit fees.
Design/methodology/approach – This study uses a sample of 188 companies with ESG Ratings listed on Bursa Malaysia for the year 2019.
Findings – The results show that auditor gender has a highly positive significant relationship with audit fees. This suggests that the female auditor gender for Malaysian firms with ESG ratings charge higher audit fees than the male auditor gender. In addition, further additional analysis reveals that there is a significant positive association between the female auditor and audit fees for Big4 firms. This indicates that Big4 female auditors exert more efforts and spend more audit hours when auditing Big4 clients than non-Big4 clients.
Practical implications – Regulators, investors and other stakeholders should realise the role played by female auditors in ensuring and sustaining the audit quality. Indeed, their roles should not be underestimated. Therefore, the audit firms may consider reducing the huge gap of gender diversity or disparity in the gender composition of audit partners, and any impediments that prevent talented and motivated female auditors from staying on with the audit firm should be eliminated.
Originality/value – To the best of our knowledge, this study is one of the first to examine the relationship between auditor gender and audit fees in emerging countries. Besides, this study investigates the moderating impact of audit firm types, i.e., Big4 firms and non-Big4 firms on the relationship between auditor gender and audit fees, which to our knowledge, this issue has not been addressed.
Keywords Audit fees, Audit quality, Auditor gender, Emerging markets

Paper type Research paper

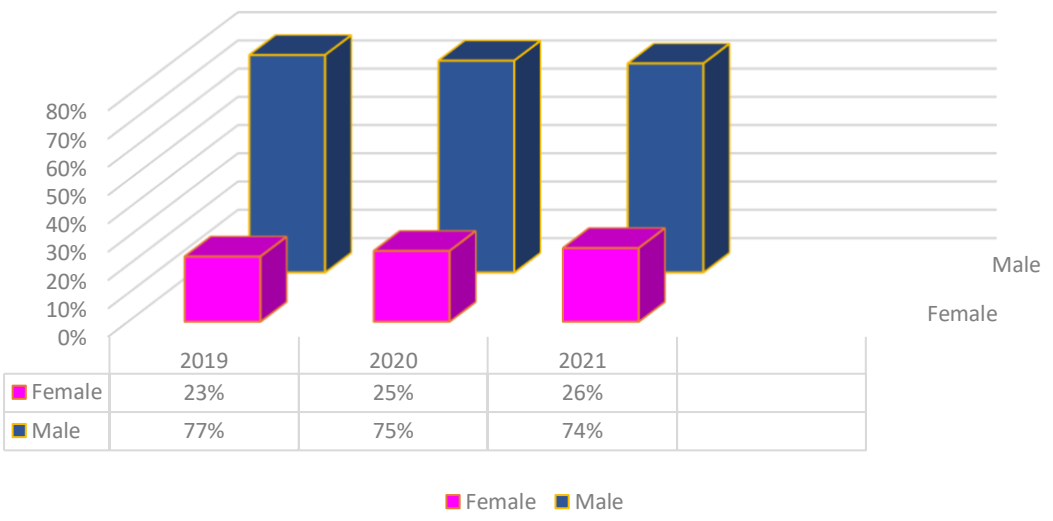
1. Introduction

The high-profile accounting scandals of 2002 demonstrated how effective female financial professionals, such as Cynthia Cooper at WorldCom and Sherron Watkins at Enron, were as whistle-blowers on matters of malfeasance. Additionally, it demonstrated how women

maintain their dignity while performing professional obligations. Thus, women's contributions to ensuring the dependability and integrity of financial reporting and audits are crucial. Women, in particular, are crucial to sustaining audit quality.

Speaking of women's involvement in the audit profession, the Malaysian Audit Oversight Board (AOB) in its recent annual report has highlighted the issue of gender diversity in senior and leadership roles in audit firms[1]. The report discloses the statistic on the gender composition of the audit partners in the audit firms registered with the AOB. Chart 1 presents the statistic where it can be seen that the involvement of the female auditors in the audit partners' gender composition increases from 2019 to 2021. This shows a good sign for the involvement of female auditors; however, there has been only a slight increase in the gender parity of audit partners over the past three years with just over a quarter of all audit partners being female. In addition, the report also finds that none of the major audit firms' managing partners or heads of audit practices are women. This implies that there is minimal involvement of female audit partners exercise senior and leadership roles in audit firms.

Chart 1. Gender composition of audit partners in audit firms registered with the AOB



Source: AOB Inspection Report 2021

Furthermore, the AOB report highlights the reasons of unbalance composition between the male and female audit partners in audit firms registered with the AOB, i.e., the audit profession is a demanding career where long hours, tight deadlines and heavy workload would make the profession unfavourable to working mothers. Working mothers normally prefer to work in professions that could offer better work-life balance or allow some degree of flexible work arrangements. Indirectly, these situations will narrow the talent pool and contribute to the high attrition rate faced by audit firms. Therefore, there is a need for audit firms to remove any barriers that prevent talented and motivated women from remaining with the audit firm and

[1] available at https://www.sc.com.my/api/documentms/download.ashx?id=928a7f04-22ae-4c64-bb24-9d341ffb4c96

progressing into more senior and leadership roles. The report concludes with the recommendations given by the AOB, that is, the body encourages audit firms to consider the initiatives to reduce gender disparity and it highlights some initiatives to consider. Thus, the promotion of gender diversity by audit firms is relevant as it can help attract, recruit, and retain the best talents.

In conjunction with this, it gives strong motivation for this study to investigate the relationship between the auditor gender and audit fees, as a proxy of the audit quality. Previous research has established a substantial correlation between female auditors and higher audit fees (Lee, Nagy & Zimmerman, 2019; Nekhili, Javed & Chtioui, 2018; Khlif & Achek, 2017; Hardies et al., 2016; Hu, Ouyang & Deng, 2014; Ittonen & Peni, 2012). Nonetheless, there is a limited study on the relationship between auditor gender and audit fees, especially in emerging countries. Hence, the objective of this study is to examine the relationship between auditor gender and audit fees. Where this study aims to fill the gap in the auditing literature by investigating those relationships. Additionally, to our knowledge, this is the first study that examines the moderating impact of audit firm types, i.e., Big4 and non-Big4 on the relationship between auditor gender and audit fees. Therefore, it would be fascinating to see how the type of audit firm affects the association between auditor gender and audit fees. Meanwhile, this study employs agency theory in order to examine the relationship between auditor gender and audit fees.

Our sample is based on 188 companies with ESG Ratings listed on Bursa Malaysia for 2019. The result shows that there is a highly significant positive association between auditor gender and audit fees, suggesting that the female auditor gender for Malaysian firms with ESG ratings do charge higher audit fees compared to the male auditor gender. Further, the additional analysis test result reveals that there is a significantly positive association between the female auditor and audit fees for Big4 firms. This indicates that Big4 female auditors exert more effort and spend more audit hours when auditing Big4 clients than non-Big4 clients.

This study highlights several implications and contributions to the auditing literature; Firstly, to our knowledge, this is the first study that examines the relationship between auditor gender and audit fees in emerging countries. Whereby, we provide further evidence on the positive relationship between auditor gender and audit fees. Secondly, this study investigates the moderating impact of audit firm types, i.e., Big4 firms and non-Big4 firms on those relationships. Where, to the best of our knowledge, this issue has not been addressed. Thirdly, the study findings provide valuable insights to the policymakers, investors, and other stakeholders, as to why female auditors are significant in sustaining audit quality.

The rest of this research paper is organized as follows: Section 2 reviews the theoretical framework; Section 3 discusses the hypothesis development; Section 4 explains the methodology. Meanwhile, Section 5 presents the results and Section 6 and 7 provide the additional analysis and conclusion respectively.

2. Theoretical Framework

The agency theory states that when there is a separation of control between the principal (shareholder) and the agent (manager), an agency problem may occur when the principal's goal is not in line with the agent’s, whereby agents are said to act more for their own benefit than to meet the principal's goal (Jensen & Meckling, 1976). There is a conflict of interest between the

agents and the principals in this case, which urges the principal to bear an additional cost, i.e., monitoring cost. Further, Jensen, and Meckling (1976) defined the monitoring costs incurred by principals as agency costs.

Abdelrazik (2017) identifies three possible ways for determining monitoring costs, and one of them is hiring external auditors and paying their audit fees. Besides, Salehi et al. (2018) assert that the audit process is an effective technique to monitor and resolve agency issues. Hence, this study will use external audit fees as a proxy for monitoring costs of the financial reporting process to reduce information asymmetry between shareholders and managers. In addition, the more agency problems and the bigger the information asymmetry, the more time and effort the external auditors will need to examine the financial statement, resulting in higher audit fees.

In conjunction with that, it is significance of engaging higher-quality auditors to ensure effective monitoring and to improve the quality of financial reporting (Basiruddin, 2011). Basiruddin (2011) states that one of the characteristics that can be used for selecting the higher-quality auditors is through gender differences. Previous studies such as Ittonen and Peni (2012) and Nekhili et al. (2018) have documented that female auditors are reported to be less overconfident, more risk-averse, more diligent, and more prepared, necessitating them to spend additional time on audit planning and risk assessment. Moreover, they are said to spend more time auditing financial statements which resulting in a higher-quality audit (Ittonen et al., 2013; Kung et al., 2019), as well as higher audit fees charged by female auditors (Hu, 2014). Consequently, we employ this theory to examine the effect of auditor gender on the total audit fees (i.e., higher, or lower) that firms have to pay.

3. Literature Review and Hypotheses Development

3.1 Auditor Gender and Audit Fees

The main objective of this study is to examine the relationship between auditor gender and audit fees. Whereby, the amount of audit fees paid by the clients could be higher for female auditors due to the gender differences related to planning, preparation and diligence that influence the engagement auditor's decisions concerning the audit investment (Ittonen & Peni, 2012). Besides, Ittonen and Peni (2012) highlights that the auditor's risk assessment of the client can be the important audit fees determinant to show the gender differences between male and female auditors.

According to Hu, Ouyang, and Deng (2014), reasons why female auditors' audit fees are significantly higher than male auditors are because female auditors are preferring to take more audit procedures and use more personnel to reduce the audit risk. In addition, Hu et al. (2014) assert that female auditors are said more risk-averse which require them to consume more time and use more auditing process that will reduce the risk. This is logical because when they are more risk-averse, the female auditors will require or demand more audit effort to complete the audit work. Consequently, this will increase audit costs that lead to higher audit fees. Furthermore, as affirmed by Hardies, Breesch, and Branson (2015) female auditors charged higher audit fees because of greater engagement effort, meaning that, they consume more hours in audit process. Besides, they demand for more audit effort because of systematic differences in knowledge, skills, abilities, preferences, and behaviour.

In addition, previous studies have documented that when there is joint audit engagement between male and female auditors, there is a significant association between audit fees and female auditors. Nekhili, Javed, and Chtioui (2018) find evidence that when a female audit partner is paired with a male audit engagement partner, they earn an audit fee premium of 11%. Nekhili et al. (2018) further clarify that in the context of the adoption of the new accounting standards, i.e., International Financial Reporting Standards (IFRS), it has resulted in the increased complexity of audit tasks, audit risk, and audit effort required for an audit engagement. Having said that female auditors are generally less overconfident and more risk-averse, therefore, they will spend more time on audit planning and risk assessment which leads to higher audit fees.

Furthermore, female auditors are crucial to sustaining audit quality. Such as, compared to male auditors, female auditors are said more likely to issue going-concern opinion (GCO), as a proxy for audit quality, particularly for high-risk clients, i.e., those facing more uncertainties and risks to continue doing business in the near future (Hardies, Breesch & Branson, 2016). Meanwhile, Ittonen, Vähämaa, and Vähämaa (2013) argue that the behavioural differences between male and female auditors give a major impact on the quality of auditing and financial reporting. Where, female auditors are more attentive, conservative, and risk-tolerant than male auditors. Therefore, if audit quality is closely related to the female auditors, then clients should be willing to pay high audit fees. This is evidenced by Lee, Nagy, and Zimmerman (2019) who find that higher audit fees are positively associated with audit fees, i.e., the proxy of audit quality. Besides, Burke, Hoitash, and Hoitash (2018) agree that having female auditors results in improved audit quality and fees.

This study extends the work of previous researchers by proposing the determinant of audit fees, i.e., auditor gender, which have rarely been studied with the exception of studies on Auditor Gender in Scandinavian Countries (Ittonen & Peni, 2012); in China (Hu, Ouyang & Deng, 2014); in Belgium (Hardies, Breesch & Branson, 2015); in France (Nekhili et al., 2018); in Sweden (Alexeyeva, 2019); and the US (Burke, Hoitash & Hoitash, 2018; Lee, Nagy & Zimmerman, 2019).

Hence, the following hypothesis (H1) is developed for the association between auditor gender and audit fees:

Hypothesis 1 (H1): *Auditor gender is positively and significantly associated with audit fees.*

4. Research Methodology and Data

4.1. Data and Sample

This study comprises companies with ESG Ratings listed on Bursa Malaysia for 2019. ESG company ratings are determined based on the FTSE Russell ESG Ratings Methodology. Wherein, 200 companies were rated from score 1 up to score 4, and our final sample is reduced to 188 companies due to incomplete data. We exclude non-financial companies because of their unique characteristics and different compliance and regulatory environment (Yatim, Clarkson & Kent, 2006). Data such as, AUDFEE, FEMALE, IAFCHARTER, IAFSOURCING, IAFCOST and NASF are manually extracted from annual reports. The other financial control variables are downloaded from DataStream.

4.2. Model Specification

To examine the association between auditor gender and audit fees, the following model is used in this study. Table 1 represents the definition of all variables used in the study.

$$AUDFEE = \beta_0 + \beta_1 FEMALE + \beta_2 ESGR + \beta_3 IAFCHARTER + \beta_4 IAFSOURCING + \beta_5 IAFCOST + \beta_6 NASF + \beta_7 FSIZE + \beta_8 LEVERG + \beta_9 ROA + \beta_{10} BIG4 + \beta_{11} FYE + \beta_{12} Z\text{-}SCORE + \beta_{13} SEGMENT + \beta_{14} SECTOR\_AF + \beta_{15}(INV + AR)/TA$$

Table 1: Variable Definitions

Variables	Acronym	Descriptions
Dependent Variable:		
Audit Fees	AUDFEE	Natural logarithm of audit fee.
Independent Variables:		
Auditor Gender	FEMALE	A dummy variable for external auditor, with '1' for female auditor and '0' otherwise.
Control Variables:		
ESG Rating	ESGR	Ranked based on Russell ESG index.
IAF Charter	IAFCHARTER	A dummy variable for IAFCHARTER with "1" if Internal Audit has Charter and "0" otherwise.
IAF Sourcing	IAFSOURCING	A dummy variable for IAFSOURCING with "1" if IAFSOURCING represents in-house and "0" otherwise.
IAF Cost	IAFCOST	Natural logarithm of IAF cost.
Non-Audit Services	NASF	Natural logarithm of non-audit services fee.
Firm Size	FSIZE	Natural logarithm of total assets.
Leverage	LEVERG	Ratio of total liabilities to total assets.
Return on assets	ROA	Net profit scaled by total assets.
Audit Firm	BIG4	A dummy variable for audit firm type, with '1' for Big 4 accounting firm and '0' otherwise.
Financial Year End	FYE	A dummy variable for firm's fiscal year ends, with '1' for fiscal year ends in December and '0' otherwise.
Z-Score	Z-SCORE	The Altman Z-Score
Segment	SEGMENT	Number of business segments
Sector	SECTOR_AF	A dummy variable for firm under Automobile & Auto Parts, Cyclical Consumer Services, Industrial Conglomerates, Telecommunications Services and Utilities, and '0' otherwise.
Inventories plus Account Receivables to Total Assets	(INV + AR)/TA	Natural logarithm of total inventories and account receivables to total assets.

4.3. Variable Measurement

4.3.1. Dependent Variable: Audit Fees

This study employs AUDFEE as its dependent variable. In the firms' annual reports, information such as audit and non-audit fees are disclosed in the notes to the account. Both amounts are collected, and the combination of these figures represents the AUDFEE. The total amount is then converted into a natural logarithm. To control for the skewed nature of audit fees, the natural log is used (Yatim et al., 2006).

4.3.2. Independent Variables

FEMALE constitutes the independent variable in this study. The information on FEMALE is gathered from the companies' annual reports, where the names of each firm's auditors are collected. Besides, if we are unsure about the information of the auditors, we then search the information from the auditors' audit firm's website to confirm the information is accurate. The FEMALE is coded using a dummy variable with a value of '1' for female auditor, and '0' otherwise.

4.3.3. Control Variables

There are several control variables tested in the AUDFEE model in this study. First, we test for ESGR, where ESGR is the company Ranked based on the Russell ESG index. Next, we include the internal audit function (IAF). The IAF must be effective to contribute to sound corporate governance. The interaction between internal and external auditors is important to improve the efficiency and effectiveness of the external auditors during the audit process (Oussii & Boulila Taktak, 2018, Alzeban & Sawan, 2016).

This study uses three proxies for the IAF namely, IAFCHARTER, IAFSOURCING and IAFCOST. IAFCHARTER are measured by a dummy variable with "1" if Internal Audit has Charter and "0" otherwise. Meanwhile, the IAFSOURCING in a company is generally arranged in three system structures, namely (i) In-house, where the company has its own IAFSOURCING; (ii) Outsourced, where an independent firm performs the IAFSOURCING; and (iii) Co-sourced, which is the combination of both or where there is partnership between IAFSOURCING in-house and an independent firm. This study uses a measurement of IAFSOURCING based on previous studies by Wan-Hussin and Bamahros (2013), who measure the variable using dummy variable with "1" if IAFSOURCING represents in-house and "0" if IAFSOURCING represents out-sourced and co-source. Meanwhile, IAFCOST is measured by natural logarithm of total IAF cost (Wan-Hussin & Bamahros, 2013). All the IAF variables are hand collected in companies' annual report under the Statement of Risk Management and Internal Control (SORMIC) Report.

Studies show mixed result on the relationship between IAF and audit fees. Earlier study has revealed contradicting and convergent conclusions about the relationship between IAF and audit fees. Several studies find negative relationship (Alzeban & Sawan, 2016; Mat Zain, Zaman & Mohamed, 2015; Al-Dhamari et al., 2018), and there are studies find positive relationship (Hay, Knechel & Ling, 2008; Singh et al., 2013; Sierra-Garca, Ruiz-Barbadillo & Orta-Pérez, 2019) between IAF and audit fees. Thus, we make no prediction on IAF and audit fees.

We then include several variables that capture client size and audit complexity as follows: the natural logarithm of total assets to measure FSIZE, the number of business segments to measure SEGMENT. SECTOR_AF is based on the industries which have a higher mean for AUDFEE, namely Automobile & Auto Parts, Cyclical Consumer Services, Industrial Conglomerates, Telecommunications Services and Utilities. Previous studies have documented that there are positive relationships between FSIZE, SEGMENT and SECTOR_AF and audit fees (Al-Harshani, 2008; Judd et al., 2017; Bryan & Mason, 2016). Therefore, we expect positive coefficients for all these variables.

Next, in our study, we include several controls for client business risk. Such as, LEVERG, ROA, Z-SCORE, and (INV + AR)/TA. LEVERG is measured based on the ratio of total liabilities to total assets. While ROA and Z-SCORE are measured based on net profit scaled by total assets and the Altman Z-Score respectively. (INV + AR)/TA are measured based on the natural logarithm of total inventories and account receivables to total assets. Following Nekhili et al. (2018) we expect a positive coefficient between LEVERG and audit fees. We expect a positive coefficient between (INV + AR)/TA and audit fees (Hardies et al., 2015). Whereas negative coefficients on ROA (Yatim, 2006) and Z-SCORE (Widmann, Follert & Wolz, 2021) are expected.

Finally, we control for a number of auditors' variables, i.e., BIG4 and FYE, and also non-audit services (NASF) that have previously been shown to have positive effects on audit fees (George et al., 2019; Sundgren & Svanström, 2013; MohammadRezaei et al., 2018; Ahmad et al., 2006). In this study, BIG4 is measured by a dummy variable with a value of '1' for Big 4 accounting firm and '0' otherwise, and FYE is also measured by a dummy variable, i.e., of '1' for firm's fiscal year ends in December and '0' otherwise. Whereas we measure NASF based on the natural logarithm of non-audit services fee. We then expect positive coefficients for BIG4, FYE and NASF with audit fees.

5. Empirical Results

5.1. Descriptive Statistics

The descriptive statistics for all variables tested in this study are presented in Table 2. The mean (median) for AUDFEE is 13.500 (13.230), which indicating a relatively low audit fees charged in Malaysian context (13 out of possible 100). The mean (median) FEMALE is 0.200 (0.000). This indicates that in Malaysia, the audit partner gender is the majority of male partner. ESGR shows the mean (median) of 2.340 (2.000). This indicates that Malaysian ESG companies has the average of 2 for ESG Ratings of PLCs assessed by FTSE Russell. Meanwhile, the three proxies of internal audit function, i.e., IAFCHARTER, IAFSOURCING and IAFCOST show the mean (median) value of 0.530 (1.000), 0.530 (1.000) and 12.689 (12.760) respectively. Table 2 also presents that NASF and FSIZE have the value of mean (median) of 10.756 (11.097) and 21.450 (21.233) respectively. While LEVERG, ROA, BIG4 and FYE show the mean (median) value of 0.442 (0.439), 0.046 (0.038), 0.590 (1.000) and 0.640 (1.000) respectively. Finally, the value of mean (median) for Z-SCORE, SEGMENT, SECTOR_AF and (INV + AR)/TA are 4.038 (2.247), 2.570 (3.000), 0.520 (1.000) and -1.705 (-1.498) respectively.

Table 2. Descriptive statistics

Variables	N	Mean	Median	Std. Dev.	Min	Max
AUDFEE	199	13.500	13.230	1.242	11.018	17.228
FEMALE	199	0.200	0.000	0.402	0.000	1.000
ESGR	199	2.340	2.000	1.129	1.000	4.000
IAFCHARTER	199	0.530	1.000	0.500	0.000	1.000
IAFSOURCING	199	0.530	1.000	0.500	0.000	1.000
IAFCOST	197	12.689	12.760	1.771	9.080	16.770
NASF	199	10.756	11.097	3.176	0.000	16.721
FSIZE	199	21.450	21.233	1.560	17.725	25.910
LEVERG	199	0.442	0.439	0.196	0.049	0.986
ROA	199	0.046	0.038	0.083	-0.426	0.442
BIG4	199	0.590	1.000	0.493	0.000	1.000
FYE	199	0.640	1.000	0.482	0.000	1.000
Z-SCORE	191	4.038	2.247	5.254	-1.792	39.876
SEGMENT	199	2.570	3.000	1.353	1.000	5.000
SECTOR_AF	199	0.520	1.000	0.501	0.000	1.000
(INV + AR)/TA	199	-1.705	-1.498	0.989	-6.644	-0.135

5.2. Correlation Analysis

The correlation analysis is presented in Table 3. From the table, FEMALE has a positive significant correlation with AUDFEE, hence supporting H1. Besides, ESGR and AUDFEE also has a positive significant correlation. All three proxies of internal audit function are positively significant with AUDFEE. The other variables in Table 3 such as NASF, FSIZE, LEVERG, BIG4, SEGMENT and SECTOR_AF have a positive significant correlation with AUDFEE. Meanwhile, Z-SCORE, ROA, and (INV + AR)/TA have a significant negative correlation with AUDFEE. Among all variables presented in Table 3, only FYE is insignificant but shows a positive correlation with AUDFEE.

5.3. Regression Results

The result of hypothesis tested in this study is presented in Table 4. From the table, the result support our hypothesis, i.e., FEMALE with highly significant positive coefficients value of 0.089 and t-value of 0.008. Meanwhile, the adjusted R-square is 0.818 for this audit fees model. The result discloses that female auditor gender for Malaysia firm with ESG ratings do charge higher audit fees compared to male auditor gender.

For the control variables, Table 4 shows that ESGR has no significant association with audit fees. Also, only one out of three proxies of internal audit function i.e., IAFCHARTER has no significant association with audit fees. While the rest two namely IAFSOURCING and IAFCOST show the negative and positive significant association with audit fees respectively. Both NASF and FSIZE show positive significant relationship with audit fees at 1% level. Meanwhile, Z-SCORE shows positive and significant association with audit fees. The rest of variables such as LEVERG, ROA, BIG4, FYE, SEGMENT, SECTOR_AF and (INV + AR)/TA show no significant relationship with audit fees in this model.

Table 3. Correlation Matrix

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	AUDFEE	1.000															
2	FEMALE	0.203**	1.000														
3	ESGR	0.361**	0.162*	1.000													
4	IAFCHARTER	0.441**	-0.008	0.334**	1.000												
5	IAFSOURCING	0.404**	0.017	0.244**	0.596**	1.000											
6	IAFCOST	0.809**	0.137	0.472**	0.613**	0.618**	1.000										
7	NASF	0.634**	0.079	0.161*	0.255**	0.214**	0.554**	1.000									
8	FSIZE	0.842**	0.126	0.387**	0.492**	0.436**	0.792**	0.527**	1.000								
9	LEVERG	0.385**	0.075	0.016	0.247**	0.259**	0.303**	0.210**	0.425**	1.000							
10	ROA	-0.220**	-0.123	0.175*	-0.153*	-244**	-0.176*	-0.148*	-0.157*	-0.246**	1.000						
11	BIG4	0.439**	0.135	0.293**	0.352**	0.290**	0.473**	0.369**	0.418**	0.146*	-0.022	1.000					
12	FYE	0.045	0.143*	0.002	0.049	0.091	0.052	-0.072	0.070	0.101	-0.007	0.015	1.000				
13	Z-SCORE	-0.373**	-0.007	0.027	-0.248**	-0.285**	-0.256**	-0.149*	-0.374**	-0.535**	0.529**	-0.128	0.002	1.000			
14	SEGMENT	0.479**	0.075	0.157*	0.151*	0.218**	0.469**	0.354**	0.442**	0.102	-0.237**	0.162*	0.017	-0.295**	1.000		

15	SECTOR_AF	0.264**	0.133	0.315**	0.184**	0.124	0.246**	0.132	0.198**	0.181*	0.054	0.224**	0.027	-0.074	0.045	1.000	
16	(INV + AR)/TA	-0.341**	-0.049	-0.292**	-0.272**	-0.294**	-0.380**	-0.190**	-0.417**	-0.157**	0.092	-0.290**	-0.133	0.048	-0.116	-0.332**	1.000

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

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4: Regression Results

Independent Variables	Expected Sign	Coefficients	Sig Value
FEMALE	+	0.089	0.008***
ESGR	?	-0.028	0.476
IAFCHARTER	?	-0.046	0.284
IAFSOURCING	?	-0.075	0.091*
IAFCOST	?	0.359	<0.001***
NASF	+	0.203	<0.001***
FSIZE	+	0.453	<0.001***
LEVERG	+	0.007	0.869
ROA	-	0.011	0.788
BIG4	+	0.007	0.841
FYE	+	0.016	0.617
Z-SCORE	-	-0.102	0.025**
SEGMENT	+	0.036	0.346
SECTOR_AF	+	0.047	0.185
(INV + AR)/TA	+	0.003	0.936
Adj. R-square		0.818	
N		188	

Note(s): ***, **, * Significant at the 1%, 5%, and 10% levels, respectively.

6. Additional Analysis

6.1. Sub-Sample Big4 and Non-Big4

We perform additional analysis to examine the impact of BIG4 types on the relationship between FEMALE and AUDFEE, the results of which are presented in Table 5. We find significantly positive results for the coefficient of FEMALE and AUDFEE in regression test for Big4 firms (0.09 with t-value 2.06), and insignificant for non-Big4 firms. In addition, there are 73% of the female auditors represent Big4 firms (unreported). This indicates that Big4 female auditors exert more effort and spend more audit hours when auditing Big4 clients than non-Big4 clients. Meanwhile, the significance levels of the other variables are qualitatively similar.

Table 5: Sub-Sample Big 4 and Non-Big 4

	Non-BIG4			BIG4		
Independent Variables	**Coeff.**	**t-Value**		**Coeff.**	**t-Value**	
FEMALE	0.07	1.03		0.09	2.06	*
ESGR	-0.03	-0.44		-0.03	-0.66	
IAFCHARTER	-0.04	-0.42		-0.12	-2.36	**
IAFSOURCING	-0.03	-0.28		-0.07	-1.41	
IAFCOST	0.44	3.40	***	0.30	3.70	***
NASF	0.02	0.21		0.33	6.61	***
FSIZE	0.46	4.20	***	0.43	5.94	***
LEVERG	0.04	0.34		-0.00	-0.02	

ROA	-0.05	-0.63	0.08	1.23	
FYE	0.04	0.59	-0.02	-0.51	
Z-SCORE	-0.07	-0.80	-0.13	-2.04	**
SEGMENT	0.07	0.90	0.05	0.89	
SECTOR_AF	0.04	0.51	0.10	1.95	**
(INV + AR)/TA	0.00	0.04	-0.01	-0.15	
(Constant)		1.54		1.82	
R-Square		0.775		0.848	
Adjusted R-Square		0.725		0.826	
Number of observations		77		110	

Besides, we also perform analysis on moderating effect on the association FEMALE and AUDFEE. The result is presented in Table 6. The result shows a negative significant at 1 tailed for the coefficient and t-value of -0.001 and -0.024 respectively for the association of AUDITORGENDER*BIG4 and AUDFEE. The result is consistent with our additional analysis where the positive association between female auditor and audit fees is significant among Big4 clients.

Table 6: Moderating Effect Auditor Gender*Big 4 and Audit Fees

	Auditor Gender*Big4		
Independent Variables	**Coeff.**	**t-Value**	
FEMALE	0.090	1.509	*
ESGR	-0.028	-0.712	
IAFCHARTER	-0.046	-1.071	
IAFSOURCING	-0.075	-1.682	**
IAFCOST	0.359	5.088	***
NASF	0.203	5.009	***
FSIZE	0.453	7.615	***
LEVERG	0.006	0.161	
ROA	0.011	0.269	
BIG4	0.008	0.197	
FYE	0.016	0.499	
Z-SCORE	-0.102	-2.254	**
SEGMENT	0.036	0.938	
SECTOR_AF	0.047	1.323	*
(INV + AR)/TA	0.003	0.082	
AUDITORGENDER*BIG4	-0.001	-0.024	
(Constant)		2.064	
R-Square		0.833	
Adjusted R-Square		0.817	
Number of observations		188	

7. Conclusions

This study contributes to the auditing literature by examining the relationship between auditor gender and audit fees in the emerging market. The findings provide informative information whereby female auditors are found to be high positively significant in audit fees. This suggests that the gender differences in female characteristics, such as being more attentive, conservative, and risk-tolerant than male auditors, contribute to audit prices. This is consistent with previous studies by Lee et al. (2019); Alexeyeva (2019); Nekhili et al. (2018); Hardies et al. (2015). In addition, we further investigate whether or not Big4 firms do affect such relationships. By using 188 companies with ESG Ratings listed on Bursa Malaysia for 2019, we provide useful and interesting findings, whereby the result reveals that Big4 female auditors charge higher audit fees than non-Big4 female auditors. Arguably, it is highly possible that profit sharing pool in smaller firms is also lesser due to smaller pool of clients as the big four still dominates Malaysian public listed firms (>50%), however the big four dominance is getting lower than before (see, Che Ahmad & Derashid 1996 at almost 80%). As such, female partners in non-Big 4 has bigger incentives to charge higher to attain market rate/compensation. From 2000s onwards, local audit firms with international firms' affiliations had been making inroads as part of the MIA initiative to ensure local firms could stand on par with the big four. And these has taken away some of Big4 clients probably to lower fees and/or better personalized services e.g., Shamsir Jasani Grant Thornton. Agency theory is employed in this study to examine the relationship between auditor gender and audit fees. This paper provides a contribution to the audit literature and implications to the policymakers, investors, and other stakeholders. One of the limitations of this study is the small sample size, which covers only one year and out of a total of 200 ESG firms, only 188 data is information available. This causes the results might not be applicable to other countries or audit market segments.

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