IJCEAS

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
Volume: XV, Issue: 2, Year: 2025, pp.396-411

Determinants of Independent Audit Fees in Developed and Emerging Markets: A Comparison of Borsa Istanbul and Nasdaq

Mümin Volkan KALE[1]
Eymen GÜREL[2]

Received: 02.05.2025, Accepted: 23.12.2025
10.5281/zenodo.18135190

Abstract

This study investigates the determinants of independent audit fees in developed and emerging markets, focusing on 40 companies from Borsa Istanbul (BIST) and 40 from Nasdaq between 2020 and 2023. Using panel data analysis, the study examines the effects of company size, revenue, complexity, financial leverage, audit opinion, auditor size, reporting lag, and return on assets on audit fees. The results reveal that company size and revenue have a positive and significant effect on audit fees in both markets, while complexity negatively influences fees. Financial leverage is significant only for BIST companies and return on assets is significant only for Nasdaq companies. Audit opinions affect audit fees positively in BIST and negatively in Nasdaq. No significant relationship was found between auditor size and audit fees in either market. Reporting lag increases audit fees in BIST but decreases them in Nasdaq. The findings highlight notable structural differences between developed and emerging markets and contribute to the broader literature on audit fee determinants. The study also emphasizes the evolving nature of audit fee disclosure, particularly in emerging markets like Turkey, suggesting that further research with expanded samples and timeframes could yield more comprehensive insights.

Key words: Independent audit fees, comparative analyses, developed and developing countries

JEL Code:M42, M40, G10

1.Introduction

While numerous studies in the literature focus on identifying the determinants of audit fees by examining a single country or market (Afesha, 2016; Al-Mutairi et al., 2017; Amba & Al-Hajeri, 2013; Ardianingsih & Setiawan, 2022; Axén, 2020; Cunha Silva et al., 2020; De Lima Castro et al., 2015; Dilie, 2021;

[1]Research Assistant, Muğla Sıtkı Koçman University, Türkiye, E-mail: volkankale@mu.edu.tr, http://orcid.org/0000-0002-1478-4518
[2]Assoc. Prof. Dr., Muğla Sıtkı Koçman University, Türkiye, E-mail: eymengurel@mu.edu.tr, http://orcid.org/0000-0003-1759-4530

ElGammal & Gharzeddine, 2020; Gah, 2020; Ho & Ng, 1996; Hossain & Sobhan, 2019; Kajola et al., 2022; Kanakriyah, 2020; Kikhia, 2014; Leventis et al., 2005; Liu, 2017; Low et al., 1990; Mohammad Hassan & Naser, 2013; Mohammed & Saeed, 2018; Musah, 2017; Naser & Nuseibeh, 2008; Nguyen Thi Phuong & Tran Le Hoang, 2017; Owusu & Amoah Bekoe, 2019; Rewczuk & Modzelewski, 2019; Saleh & Ragab, 2023; Shakhatreh & Alsmadi, 2021; Soyemi & Olowookere, 2013; Thinggaard & Kiertzner, 2008; Urhoghide & Izedonmi, 2015; Zhang & Myrteza, 1996), studies incorporating multiple cross-sectional analyses remain relatively limited (Ahmed & Goyal, 2005; Cobbin, 2002; Pong & Whittington, 1994; Taylor & Simony, 1999). Audit fees are monetary payments made to firms that audit financial statements in accordance with specific standards to ensure their accuracy and fairness. These fees encompass the costs incurred during the audit process, risk compensation, and the profit margin of the auditing firm. Audit fees are not only a determinant of audit quality but also a factor that directly influences the development of the auditing industry (Liu, 2017: 52). Therefore, the factors that determine audit fees were first explored by Simunic (1980). Since then, this topic has attracted the attention of academics around the world and has been the subject of continuous discussion.

Determining the quality of independent auditing is indeed a complex process influenced by various factors. This complexity arises from the extensive knowledge and sector-specific expertise required in audit activities. According to DeAngelo (1981: 186), the quality of an independent audit depends directly on the audit firm's ability to detect errors and fraud, as well as to report potential violations. These abilities are shaped by factors such as the sample size and the audit procedures applied. This situation will increase audit costs, leading to higher audit fees. Therefore, audit fees are undoubtedly one of the key factors that determine the quality of independent auditing (Xu, 2011: 1).

Independent audit fees have been a subject of research worldwide globally. In Turkey, however, scientific studies on this topic have emerged more recently, particularly since 2021. This situation arises from the fact that independent audit fees began to be included in the notes to the financial statements starting from 2021(Cengiz & Öksüz, 2023: 191). The aim of this study is to identify the factors that determine the independent audit fees of firms listed on the stock exchanges of developed and developing countries, and to examine how these determinants differ between the two groups. The aim of this study is to identify the factors that determine the independent audit fees of firms listed on the stock exchanges of both developed and developing countries. For this purpose, Turkey was selected to represent developing countries, and the top 40 companies with the highest trading volumes on Borsa İstanbul (BIST) between 2020 and 2023 were analysed. Similarly, the United States was chosen selected to represent developed countries, and the top 40 companies with the highest trading volumes on the NASDAQ stock exchange during the same period were included in the analysis. The data obtained were analysed using panel data analysis, and the findings were interpreted. Since there are very few studies in the literature on the determinants of independent audit

fees in developed and developing countries, this study is expected to contribute significantly to the literature.

2. Theoretical Framework

Independent audit fees are influenced by numerous factors related to the scope and complexity of audit activities. However, a review of the existing literature reveals that the following determinants are particularly emphasized. However, the following determinants:

a. Size of the Audited Company: Many studies have found that there is a strong relationship between company size and independent audit fees. As the size of the company increases, the sample size that audit firms need to examine expands the number of audit procedures to be applied also rises. This situation requires auditors to require more time and effort, which in turn increases audit costs. A review of the literature shows that many studies identify total assets and revenue as indicators of company size. (Galani et al., 2011; Gonthier-Besacier & Schatt, 2007; Liu, 2017; Low et al., 1990; Rewczuk & Modzelewski, 2019; Shakhatreh & Alsmadi, 2021; Wallace & Naser, 1995; Xue & O'Sullivan, 2023).

*b. Profitability***:** Previous studies have frequently found a positive relationship between a company's profitability and audit fees. Theoretically, this relationship is expected to be positive. This is because financially successful companies tend to disclose more information to investors and emphasize their achievements (Joshi & Al-Bastaki, 2000). On the other hand, some empirical studies show that companies with lower profitability tend to pay higher audit fees. Because such companies often adopt cost-cutting measures that impair the functionality of the internal audit mechanism, auditors may face increased workloads. Consequently, this can lead to higher audit costs. (Chan et al., 1993)

*c. Complexity***:** Undoubtedly, the amount of time spent, and the workforce employed play an important role in determining independent audit fees. As the business complexity increases, the audit procedures and time required for the independent audit process also expand. Consequently, audit fees are likely to rise. There are several criteria used to measure the complexity level of businesses. For instance, the number of subsidiaries (Shakhatreh & Alsmadi, 2021; Simunic, 1980), number of branches, levels of trade receivables and inventories, and diversification of business activities are all commonly used measures (Simunic, 1980: 108).

*d. LeverageRatio***:** The leverage ratio of a company indicates the extent to which its operations are financed through debt. A high leverage ratio means that a significant portion of the company's assets is funded by debt, which implies that the company carries relatively high financial risk. Auditing companies with higher financial risk demands more time and resources, which may lead to higher audit fees (Yatim et al., 2006).

e. Auditor Size: Auditor size is considered an important factor in determining independent audit fees. This stems from the expectation that large-scale audit firms providing independent audit services deliver higher-quality services than local or smaller firms (Francis, 2004, 2011).

f. Audit Opinion: Previous studies on the determinants of independent audit fees have presented various evidence regarding the relationship between the type of

audit opinion and audit fees (Geiger & Rama, 2003; Palmrose, 1986; Simunic, 1980). If a firm's audit opinions show instability, that is, if audit opinions change frequently from year to year, auditors may proceed more cautiously and apply additional audit procedures. Consequently, firms may incur higher audit fees.

g. *Audit Report Lag (Reporting Duration):* The reporting duration refers to the period between the end of the fiscal year and the preparation of the auditor's report (Naser & Hassan, 2016). As the delay in issuing the audit report increases, the audit process becomes more complex, and the audit risk rises, which can lead to higher independent audit fees.

3.Literature Review

The literature on the determinants of audit fees consists of numerous empirical studies conducted across different countries and time periods. The studies generally focus on the impact of audit fees by firm size, complexity, auditor characteristics, financial structure and governance factors. The table below summarizes the major findings from the 1980s until the present. The most common findings reveal that both firm and auditor size are key determinants that lead to a significant increase in audit fees. On the other hand, factors such as auditor-client tenure and first-year audits are likely to result in lower fees. Furthermore, the impacts of governance indicators, risk level, profitability, and liquidity are determined by country, time, and industry. The table presents a summary of the key findings and the changes in the research concerning the determinants of audit fees.

Table 1. Related Works

Author	Sample	Independent Variables	Findings
Simunic (1980)	367 U.S. Companies (1977 data)	Company Size (Total Assets), Number of Subsidiaries Number of Industries Receivables-Inventory Ratio Profit-Loss Status Audit Duration Auditor's Big Eight Status	Audit fees are positively associated with several factors, including company size, complexity, the size of receivables and inventories, and whether the auditor belongs to a Big Eight firm. In contrast, the duration of the relationship with the auditor is negatively related to audit fees.
Palmrose (1986)	361 U.S. Companies (1981 data)	Company Size (Total Assets) Number of Branches Public Status, Auditor Size Industry Expertise	There is a positive and significant relationship between audit fees and the size of the audit firm. The industry expertise variable is statistically insignificant, while company size emerges as the strongest determinant of audit fees. Furthermore, as the number of branches and the level of public disclosure increase, audit fees also rise.
Rubin (1988)	189 U.S. Municipalities (1982 data)	Municipality size, Debt per capita, Bond rating, Status of comprehensive annual financial report, Changes in auditor's opinion, Auditor tenure (in municipalities with and without bidding),	There is a positive and significant relationship between the audit fees, municipality size, debt level, and bond rating. The duration of the auditor-client relationship reduces fees in municipalities when there's a formal bidding process, but raises fees when there isn't. Audits performed during peak periods incur higher fees. Although Big Eight firms may demand higher fees in large cities, no

		Peak season audit, Auditor size	significant fee difference is found generally.
Low et al. (1990)	291 Companies listed on the Singapore Stock Exchange (1986 data)	Company size, Ratio of receivables to total assets, Ratio of inventories to total assets, Loss-making status in the last three years,Existence of contingent liabilities, Ratio of long-term debts to total funds, Current ratio, C contingent opinion in the auditor's report	Company size is identified as the strongest determinant of audit fees. The number of industries in which a company operates (reflecting complexity) and inventory ratios are significant factors in certain sectors. Similarly, the accounts receivable ratio, loss history, and contingent liabilities are meaningful determinants in some industries. The effect of a qualified opinion in the audit report is generally weak. In Industry-based analyses reveal higher explanatory power for the model and with the significance of variables differing across sectors.
Dewey Ward et al. (1994)	171 Michigan Municipalities (1988 data)	Logarithm of total revenues, Number of significant funds, Fund-based reporting, Preparation of a comprehensive annual financial report, Tenure of the financial officer, Adjusting entries proposed during the audit, Auditor experience, Contingent opinion on assets, Other contingent opinions, Debt per capita, Bond rating, Property tax rate, Percentage of revenue from local sources, Municipality governance structure, Type of municipality, Transfer of elected officials, Seat share of the minority party	Audit fees are most influenced by total revenues, auditor experience, and the number of proposed adjusting entries. A positive relationship is observed between audit fees and both the ratio of locally sourced revenues, and the property tax rate In contrast, fund-based reporting, municipal type, and political competition variables are generally insignificant factors. While auditor experience is associated with a significant fee premium, contingent opinions do not have a statistically significant effect on audit fees.
Ho& Ng (1996)	313 Companies (1992) and 396 companies (1993) listed on the Hong Kong Stock Exchange	Total assets, Revenue, Debt ratio, Liquidity ratio, Profitability status, Number of main subsidiaries, Auditor size, Auditor change, Fiscal year-end period, Audit delay	Audit fees are most influenced by company size (total assets and revenue), operational complexity (number of major subsidiaries), and audit timing (fiscal year-end and audit delay). There is a positive and significant relationship between auditor size (BIGSIX) and audit fees. The debt ratio and liquidity variables are significant during certain periods. Auditor change (AAUD) is negatively related to audit fees, indicating lower fees in the first year.
Cobbin (2002)	56 Studies, 17 Countries (1980-2000): U.S., U.K., Australia, Canada, New Zealand, India, Ireland, Pakistan, Bangladesh, Malaysia, Singapore, Hong Kong, Japan, South Korea,	Company size, Company complexity, Risk profile, Auditor characteristics, Audit Scope, Audit delay, Industry regulations	Company size is the strongest determinant of audit fees. Business complexity and risk profile also have significant and consistent effects on fees. Big 8 auditors generally charge a fee premium. In some markets (charge Pakistan, Japan, Hong Kong), specific

	South Africa, Netherlands, Norway	and country-specific variables	audit firms charge extra fees, while in other countries (charge Norway, the Netherlands), firm effects are weak. The influence of country-specific historical and cultural factors has largely been overlooked in prior research.
Ahmed &Goyal (2005)	566 Companies: 118 Bangladesh, 219 India, 229 Pakistan (1998 data)	Company size, Multinational company affiliation, Financial condition, Operational complexity, Auditor size	Audit fees are primarily influenced by company size, multinational affiliation, and auditor size. Big 4 auditors are found to charge higher fees. Financial status variables are significant only in the case of Pakistan. The operational complexity (INVARTTA) variable is statistically insignificant. Furthermore, companies in India tend to pay higher audit fees than those in Bangladesh and Pakistan.
Soyemi&Olowookere (2013)	10 Public Nigerian Commercial Banks (2009-2012)	Bank size, Capital adequacy ratio, Credit risk, Number of subsidiaries, number of branches	Bank size has a positive and significant impact on audit fees, explaining 63% of their variation. The capital adequacy ratio and number of subsidiaries are insignificant factors, while credit risk shows a negative but insignificant relationship. A negative and significant relationship exists between the number of branches and audit fees, likely because the use of information technology in branch audits reduces audit time.
Naser& Hassan (2016)	22 Non-Financial Companies, Dubai Financial Market (DFM) (2011 data)	Company size, Profitability, Financial risk, Company complexity, Industry type, Auditor size, Audit report delay, Audit committee independence	Audit fees show a positive and significant relationship with company size and audit committee independence. There is a negative and significant relationship between company complexity (COMP) and audit fees. Financial risk, profitability, industry type, auditor status, and audit report delay variables were found to be insignificant.
Gah (2020)	162 Studies: 146 International, 16 Iran Journals (2000-2016 period)	Audit quality, accounting firm size, Industry expertise, Auditor tenure, Client company size, client company risk	Meta-analysis findings show that client company size and accounting firm size have the strongest relationship with audit fees. Audit quality, industry expertise, and auditor tenure also have positive and significant effects on audit fees. Client company risk is positively related to fees as well, but its effect is lower compared to the other variables. The explanatory power of the model is high for all variables, and the results are consistent across studies.
Ardianingsih&Setiawan (2022)	98 Companies in the Indonesian Financial Sector (2014-2020 period)	Internal audit activities, Risk management, Company size, Managerial ownership, Institutional ownership, Profitability	Company size, corporate ownership, and profitability have a positive and significant impact on audit fees. Internal audit activities, risk management, and managerial ownership do not have significant effects. The model's explanatory power is high ($R^2 = 0.880$). Higher corporate ownership and profitability appear to increase the demand for audit quality, which in turn raises audit fees. Among all variables, company size emerges as the strongest determining variable.
Xue & O'Sullivan (2023)	453 Companies, United Kingdom Alternative	Risk Variables: Ratio of receivables to total assets, Ratio	Audit fees are negatively and significantly associated with the company's liquidity ratio and listing duration.

	Investment Market (AIM) (2016 data)	of inventories to total assets, Subsidiary assets in the U.S. Return on assets ratio, Leverage ratio Liquidity ratio, Listing duration Income non-generation status, Ratio of independent board members, Audit committee disclosure, Audit committee size, Presence of executive members in the audit committee, financial expertise of audit committee member, Auditor size Audit fee from the previous year, Company size, Number of subsidiaries Non-audit services provided by the auditor, Auditor's location in London Intense audit period, Auditor change	The proportion of independent board members and the disclosure of audit committee statements are positively and significantly related to higher audit fees. Big 4 auditors charge, on average, a 4.6% premium on audit fees. Company size and the provision of non-audit services have positive and significant effects on audit fees. Among the control variables, the previous year's audit fee is identified as one of the strongest predictors of current audit fees.
Cengiz&Öksüz (2023)	98 BIST-100 Manufacturing Sector Companies (2020-2022 period)	Audit Firm Size, Type of audit opinion, Duration of the relationship between the audit firm and the audited company Return on assets ratio, Asset size, financial leverage ratio	Audit fees are positively and significantly associated with audit firm size. The length of the audit-firm/client relationship (tenure) is negatively and significantly associated with audit fees. No significant relationship was found between the type of audit opinion and audit fees. While active profitability ratio and asset size are positively and significantly related. The financial leverage ratio shows a negative and significant relationship with audit fees. The model's explanatory power is moderate ($R^2 = 0.281$).

4. Methodology

The sample of this study consists of 80 companies, with 40 selected from Turkey and 40 from the United States, covering the period from 2020 to 2023. The focus on this period stems from the fact that independent audit fees in Turkey began to be disclosed in financial statements starting in 2021. The companies were selected from the top 40 firms with the highest trading volumes on Borsa İstanbul and the Nasdaq stock exchange in the United States, as these companies provide the most comprehensive and accessible financial data. The data for companies listed on Borsa Istanbul were obtained from the Public Disclosure Platform (KAP), while the data for companies listed on the Nasdaq stock exchange were gathered from the Investing database. The collected data were analyzed using the panel data analysis method, and the findings were interpreted accordingly. The regression model developed for the study is presented below:

$$LnFee = \beta_0+\beta_1 AS_{it}+\beta_2 AO_{it}+\beta_3 LAG_{it}+\beta_4 lnTA_{it}+\beta_5 LnREV_{it}+\beta_6 LnCOMP_{it}+\beta_7 ROA_{it} +\beta_8 FLR_{it}+e_{it} \quad (1)$$

Table 2. Definition of Variables

Name of the Variable	Symbol	Definition of a Variable
Independent Audit Fee	LnFEE	Natural logarithm of total audit fee
Client Company Size	LnTA	Natural logarithm of total assets of the company
Complexity	LnCOMP	Natural logarithm of the sum of trade receivables and inventories
Financial Leverage Ratio	FLR	Total liabilities / Total equity
Type of Audit Opinion	AO	If positive, 1; otherwise, 0
Auditor Size	AS	If the auditor is from a Big Four firm, 1; otherwise, 0
Reporting Lag	LAG	Natural logarithm of the number of days from the end of the calendar year to the reporting date
Return on Assets	ROA	Net income / Total assets
Revenue	LnREV	Natural logarithm of the company's total revenue for the relevant year

Variables obtained from Public Disclosure Platform for BorsaIstanbul and investing.com for Nasdaq Stock Exchange

Hypothesis

Based on the information obtained from the literature, the following 8 null hypotheses were tested:

H_{01}: The size of the audit firm does not have a significant effect on independent audit fees.

H_{02}: The audit opinion does not have a significant effect on independent audit fees.

H_{03}: The reporting lag does not have a significant effect on independent audit fees.

H_{04}: The size of the audited company does not have a significant effect on independent audit fees.

H_{05}: The revenue of the company does not have a significant effect on independent audit fees.

H_{06}: The complexity level of the companies does not have a significant effect on independent audit fees.

H_{07}: The return on assets ratio of companies does not have a significant effect on independent audit fees

H_{08}: The leverage ratio of companies does not have a significant effect on independent audit fees.

5. Findings

To ensure that the empirical model is estimated accurately and consistently using panel data analysis, several preliminary tests were conducted to determine the most appropriate estimator and to obtain reliable results. The aim of these preliminary tests is to identify any deviations of fundamental assumptions and to estimate the long-term parameters of the variables using robust estimators in case

of such deviations. The following tables present the assumption tests conducted for the models developed for Turkey and the United States, respectively.

Table 3. Assumption Tests for the Model Established for Companies Listed on Borsa Istanbul

Tests	H_0 Hypothesis	Test Value	Result
F Test	Unit and time effects are equal to zero.	p=0.000	The classical model is not valid.
Hausman Test	The difference between parameters is not systematic.	p=0.9387	The random effects model is valid.
Levene, Brown and Forsythe Test	σ_i^2 = σ^2 for all i	W0: p<0,007 W50: p<0,20 W10: p<0,007	There is an issue with heteroscedasticity.
Locally Best Invariant and Durbin Watson Tests	The correlation coefficient is equal to zero.	Durbin-Watson: 1,8 Baltagi-Wu: 2,3	There is no issue with autocorrelation.
Friedman Cross-Sectional Dependence Test	There is no cross-sectional dependence.	p=1,000	There is no issue with cross-sectional dependence.

Table 4. Assumption Tests for the Model Established for Companies Listed on Nasdaq Stock Market

Test	H_0 Hypothesis	Test Value	Result
F Test	Unit and time effects are equal to zero.	p=0.000	The classical model is not valid.
Hausman Test	The difference between parameters is not systematic.	p=0.6764	The random effects model is valid.
Levene, Brown and Forsythe Test	$\sigma_i^2 = \sigma^2$ for all i	W0: p<0,000 W50: p<0,000 W10: p<0,000	There is an issue with heteroscedasticity.
Locally Best Invariant and Durbin Watson Tests	The correlation coefficient is equal to zero.	Durbin-Watson: 1,68 Baltagi-Wu: 2,32	There is no issue with autocorrelation.
Friedman Cross-Sectional Dependence Test	There is no cross-sectional dependence.	p=1,000	There is no issue with cross-sectional dependence.

IJCEAS

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
Volume: XV, Issue: 2, Year: 2025, pp.396-411

The assumption tests yielded similar results for both the Borsa Istanbul and Nasdaq datasets. In the F-test, which examines the validity of the classical model, the null hypothesis stating that "unit and time effects are equal to zero" was rejected. This result indicates that the classical model is not valid. The Hausman test was conducted to determine the appropriate model between fixed effects and random effects. The null hypothesis, which states that "the difference between the parameters is not systematic" was accepted. Accordingly, it was concluded that the random effects model provides more consistent and efficient results. Levene's, Brown's, and Forsythe's tests were performed to examine the presence of heteroscedasticity in the model. The null hypothesis of "equal variances among units" was rejected, indicating that heteroscedasticity exists in the model. In addition, the presence of autocorrelation in the model was tested using the Durbin-Watson test and Baltagi-Wu's Locally Best Invariant test. Since the test statistic values obtained were close to 2, the null hypothesis stating that "the correlation coefficient is equal to 0" was accepted, indicating the absence of autocorrelation in the model. Finally, cross-sectional dependence was examined using the Friedman Cross-Sectional Dependence test. The null hypothesis stating that "there is no cross-sectional dependence" was accepted, indicating that there is no correlation problem between the units in the model. In summary, the models developed for Turkey and the United States deviate only from the assumption of constant variance. Therefore, in the presence of heteroscedasticity, the use of robust standard errors method is recommended, as this method provides more reliable results, and allows for consistent estimation of the the long-term parameters of the variables under such conditions.

Table 5. Results of Robust OLS Regression for Each Stock Markets

	Variable	Coefficient	Robust Standard Error	Probability
BORSA ISTANBUL	LnTA	1,045	0,153	0,000**
	LnCOMP	-0,419	0,184	0,023*
	FLR	-0,002	0,0002	0,000**
	AO	0,881	0,282	0,002**
	AS	0,395	0,300	0,189
	LAG	0,413	0,168	0,014*
	ROA	-0,213	0,167	0,203
	LnREV	0,292	0,142	0,040*
	C	-11,54	0,911	0,000**
	Prob>F=0,000	R2=0,62		
	Variable	**Coefficient**	**Robust Standard Error**	**Probability**
NASDAQ	LnTA	0,347	0,054	0,000**
	LnCOMP	-0,952	0,048	0,048*
	FLR	0,006	0,007	0,361

AO	-0,377	0,190	0,047*
AS	0,568	0,456	0,213
LAG	-0,411	0,191	0,032*
ROA	-0,248	0,029	0,000**
LnREV	0,181	0,042	0,000**
C	12,76	0,856	0,000**
Prob>F=0,000	R^2=0,61		

In both specified models, Audit Fees are used as the dependent variable.

Table 5 presents the regression results obtained for Borsa Istanbul and the Nasdaq Stock Exchange. The findings indicate a positive and statistically significant relationship between the size of the audited company (measured by LnTotalAssets and LnRevenue) and the independent audit fee in both markets. In both stock exchanges, there is a negative and significant relationship observed between the complexity level of audited firms and audit fees. Additionally, for firms listed on Borsa İstanbul, financial leverage exhibited a negative and significant relationship with independent audit fees. However, no significant relationship was found between these two variables for firms listed on the Nasdaq Stock Exchange. A positive auditor opinion was found to increase independent audit fees for companies listed on Borsa Istanbul, while it had a decreasing effect on audit fees for companies listed on the Nasdaq Stock Exchange. Additionally, in both markets, the size of the audit firm did not have a statistically significant effect on independent audit fees. A positive relationship was found between the publication time of the independent audit report and independent audit fees for companies listed on Borsa Istanbul, whereas a negative relationship was observed for companies listed on the Nasdaq Stock Exchange. While no significant relationship was found between the return on assets (ROA) and independent audit fees for companies listed on Borsa Istanbul, a negative relationship was observed for companies listed on the Nasdaq Stock Exchange.

5. Conclusion

The aim of this study is to investigate the factors that independent auditors consider important when determining audit fees. Although numerous studies have examined audit fees and their determinants, this research is the first to focus specifically on Turkey and the United States. For this purpose, the study used data from the 40 companies with the highest trading volume on Borsa Istanbul and the 40 companies with the highest trading volume on the Nasdaq Stock Exchange. The study covers the period from 2020, when the disclosure of audit fee data became mandatory in Turkey, to 2023, the most recent year for which data were available. The data obtained for this period were analyzed using panel data analysis.

International Journal of Contemporary Economics and Administrative Sciences
ISSN: 1925 – 4423
Volume: XV, Issue: 2, Year: 2025, pp.396-411

As a result of the analyses, the following findings were obtained:

Table 6. Summary of the Findings

	BIST		NASDAQ	
Variable Name	**Relationship with Dependent Variable**	**Direction of Relationship**	**Relationship with Dependent Variable**	**Direction of Relationship**
Client Company Size	Significant	Positive	Significant	Positive
Complexity	Significant	Negative	Significant	Negative
Financial Leverage Ratio	Significant	Negative	Insignificant	-
Type of Audit Opinion	Significant	Positive	Significant	Negative
Auditor Size	Insignificant	-	Insignificant	-
Reporting Lag	Significant	Positive	Significant	Negative
Return on Assets	Insignificant	-	Significant	Negative
Revenue	Significant	Positive	Significant	Positive

According to the findings, there is a significant relationship between audit fees and the variables of client company size, complexity, financial leverage ratio, type of audit opinion, reporting duration, and revenue for firms listed on Borsa İstanbul (BIST). However, no significant relationship was found between auditor size and return on assets (ROA). In contrast, for companies listed on the Nasdaq Stock Exchange, a significant relationship was identified between audit fees and the variables of client company size, complexity, type of audit opinion, reporting duration, return on assets (ROA), and revenue. However, no significant relationship was found between financial leverage ratio and auditor size. The explanatory power of the model (R^2) was 0.62 for BIST and 0.61 for Nasdaq.

While performing the analysis, the corporate governance index and financial failure dummy variables were included as control variables in the model; however, since they significantly impaired the explanatory power of both the model and other independent variables, they were removed from the model.

One of the key limitations of this study is that the official disclosure of audit fees in Turkey began only recently, resulting in a relatively short observation period. In future research, more meaningful results could be obtained by extending the time frame. Another limitation concerns the sample size for both countries. The number of firms could be expanded, and additional variables could be incorporated into the analysis.

REFERENCES

Afesha, T. (2016). Audit Fee Determinants and Audit Quality in Ethiopian Commercial Banks. Ethiopian Journal of Business and Economics (The), 5(2), 159. https://doi.org/10.4314/ejbe.v5i2.1

Ahmed, K., & Goyal, M. K. (2005). A Comparative Study of Pricing of Audit Services in Emerging Economies. International Journal of Auditing, 9(2), 103–116. https://doi.org/10.1111/j.1099-1123.2005.00236.x

Al-Mutairi, A., Naser, K., & Al-Enazi, N. (2017). An Empirical Investigation of Factors Affecting Audit Fees: Evidence from Kuwait. International Advances in Economic Research, 23(3), 333–347. https://doi.org/10.1007/s11294-017-9649-5

Amba, S. M., & Al-Hajeri, F. K. (2013). Determinants of audit fees in Bahrain: an empirical study. Journal of Finance and Accountancy, 31(1), 1–10.

Ardianingsih, A., & Setiawan, D. (2022). Determinants Of Factors Affecting the Amount of Fees for Audit Services. Quality - Access to Success, 23(187), 271–279. https://doi.org/10.47750/QAS/23.187.33

Axén, L. (2020). Determinants of audit fees and the management of corporate disclosures [Doctoral Dissertation]. In Linköping Studies in Arts and Sciences (Issue 779). www.liu.se

Cengiz, S., & Öksüz, S. (2023). Bağımsız Denetim Ücretlerinin Belirleyicileri Üzerine Bir Araştırma. Ekonomi, İşletme, Siyaset ve Uluslararası İlişkiler Dergisi, 9(2), 190–204.

Chan, P., Ezzamel, M., & Gwilliam, D. (1993). DETERMINANTS OF AUDIT FEES FOR QUOTED UK COMPANIES. Journal of Business Finance & Accounting, 20(6), 765–786. https://doi.org/10.1111/j.1468-5957.1993.tb00292.x

Cobbin, P. E. (2002). International Dimensions of the Audit Fee Determinants Literature. International Journal of Auditing, 6(1), 53–77. https://doi.org/10.1111/j.1099-1123.2002.tb00005.x

Cunha Silva, A. S. V., Inácio, H. C., & Simões Vieira, E. F. (2020). Detereminants of audit fees for Portugal and Spain. Contaduria y Administracion, 65(4). https://doi.org/10.22201/fca.24488410e.2020.2039

De Lima Castro, W. B., Peleias, I. R., & Da Silva, G. P. (2015). Determinants of audit fees: A study in the companies listed on the BM&FBOVESPA, Brazil. Revista Contabilidade e Financas, 26(69), 261–273. https://doi.org/10.1590/1808-057x201501560

Deangelo, L. E. (1981). AUDITOR SIZE AND AUDIT QUALITY. In Journal of Accounting and Economics (Vol. 3). North-Holland Publishing Company.

Dewey Ward, D., Elder, R. J., & Kattelus, S. C. (1994). Further Evidence on the Determinants of Municipal Audit Fees. In Source: The Accounting Review (Vol. 69, Issue 2).

Dilie, W. (2021). The Determinants of Audit Fees: Evidence From Private Banks in Ethiopia. 9(224), 1–9.

ElGammal, W., & Gharzeddine, M. (2020). Determinants of audit fees in developing countries: Evidence from Egypt. Corporate Ownership and Control, 17(2), 142–156. https://doi.org/10.22495/cocv17i2art12

Francis, J. R. (2004). What do we know about audit quality? The British Accounting Review, 36(4), 345–368. https://doi.org/10.1016/j.bar.2004.09.003

Francis, J. R. (2011). A Framework for Understanding and Researching Audit Quality. AUDITING: A Journal of Practice & Theory, 30(2), 125–152. https://doi.org/10.2308/ajpt-50006

Gah, A. D. (2020). A Meta-Analysis of Audit Fees Determinants: Evidence from an Emerging Market. Iranian Journal of Accounting, Auditing and Finance, 4(1), 1–17. https://doi.org/10.22067/ijaaf.2020.39255

Galani, D., Alexandridis, A., & Stravropoulos, A. (2011). The association between the firm characteristics and corporate mandatory disclosure the case of Greece. International Journal of Economics and Management Engineering, 5(5), 411–417.

Geiger, M. A., & Rama, D. V. (2003). Audit Fees, Nonaudit Fees, and Auditor Reporting on Stressed Companies. Auditing: A Journal of Practice & Theory, 22(2), 53–69.

Gonthier-Besacier, N., & Schatt, A. (2007). Determinants of audit fees for French quoted firms. Managerial Auditing Journal, 22(2), 139–160. https://doi.org/10.1108/02686900710718654

Ho, S. W. m., & Ng, P. P. h. (1996). The Deteminants of Audit Fees in HongKong: An Empirical Study. In Asian Review of Accounting (Vol. 4, Issue 2, pp. 32–50). https://doi.org/10.1108/eb060673

Hossain, N., & Sobhan, R. (2019). Determinants of Audit Fees: Evidence from Pharmaceutical and Chemical Industry of Bangladesh. International Journal of Trend in Scientific Research and Development, 4(1), 814–821. www.ijtsrd.com

Joshi, P. L., & AL-Bastaki, H. (2000). Determinants of Audit Fees: Evidence from the Companies Listed in Bahrain. International Journal of Auditing, 4(2), 129–138. https://doi.org/10.1111/1099-1123.00308

Kajola, S. O., Olabisi, J., & Tonade, A. A. (2022). Determinants of audit Fees in Nigerian Banks Determinants of Audit Fees in Nigerian Banks. Accounting and Taxation Review, 6(1). http://www.atreview.org

Kanakriyah, R. (2020). MODEL TO DETERMINE MAIN FACTORS USED TO MEASURE AUDIT FEES. Academy of Accounting and Financial Studies Journal, 24(2), 1–13. https://www.researchgate.net/publication/340742733

Kikhia, H. Y. (2014). Determinants of Audit Fees: Evidence from Jordan. Accounting and Finance Research, 4(1). https://doi.org/10.5430/afr.v4n1p42

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. https://doi.org/10.1111/j.1099-1123.2005.00101.x

Liu, S. (2017). An Empirical Study: Auditors' Characteristics and Audit Fee. Open Journal of Accounting, 06(02), 52–70. https://doi.org/10.4236/ojacct.2017.62005

Low, L. C., Tan, P. H. N., & Koh, H. C. (1990). The determination of audit fees: Analysis in the Singapore context. In Journal of Business Finance (Vol. 17, Issue 2). ^Accounting. https://ink.library.smu.edu.sg/soa_research

Mohammad Hassan, Y., & Naser, K. (2013). Determinants of Audit Fees: Evidence from an Emerging Economy. International Business Research, 6(8). https://doi.org/10.5539/ibr.v6n8p13

Mohammed, N., & Saeed, A. (2018). Determinants of Audit Fees : Evidence from UK Alternative Investment Market. Academic Journal of Nawroz University, 7(3), 34–47. https://doi.org/10.25007/ajnu.v7n3a198

Musah, A. (2017). Determinants of Audit fees in a Developing Economy: Evidence from Ghana. International Journal of Academic Research in Business and Social Sciences, 7(11). https://doi.org/10.6007/ijarbss/v7-i11/3510

Naser, K., & Hassan, Y. M. (2016). Factors influencing external audit fees of companies listed on Dubai Financial Market. International Journal of Islamic and Middle Eastern Finance and Management, 9(3), 346–363. https://doi.org/10.1108/IMEFM-01-2015-0007

Naser, K., & Nuseibeh, R. (2008). Determinants of audit fees: Empirical evidence from an emerging economy. International Journal of Commerce and Management, 17(3), 239–254. https://doi.org/10.1108/10569210710833635

Nguyen Thi Phuong, H., & Tran Le Hoang, M. (2017). The Determinants of Audit Fees for Companies in Vietnam. Journal of Economics and Development, 68–88. https://doi.org/10.33301/2017.19.02.04

Owusu, G. M. Y., & Amoah Bekoe, R. (2019). Determinants of audit fees: The perception of external auditors. Journal of Research in Emerging Markets, 1(4), 44–54. https://doi.org/10.30585/jrems.v1i4.368

Palmrose, Z.-V. (1986). Audit Fees and Auditor Size: Further Evidence. In Source: Journal of Accounting Research (Vol. 24, Issue 1).

Pong, C. M., & Whittington, G. (1994). The determinants of audit fees: Some empirical models. Journal of Business Finance & Accounting, 21(8).

Rewczuk, K., & Modzelewski, P. (2019). Determinants of audit fees: Evidence from Poland. Central European Economic Journal, 6(53), 323–336. https://doi.org/10.2478/ceej-2019-0020

Rubin, M. A. (1988). Municipal Audit Fee Determinants. In Source: The Accounting Review (Vol. 63, Issue 2).

Saleh, M. A., & Ragab, Y. M. (2023). Determining audit fees: evidence from the Egyptian stock market. International Journal of Accounting and Information Management, 31(2), 355–375. https://doi.org/10.1108/IJAIM-07-2022-0156

Shakhatreh, M. Z., & Alsmadi, S. A. (2021). Determinants of Audit Fees and the Role of the Board of Directors and Ownership Structure: Evidence from Jordan. Safaa Adnan ALSMADI / Journal of Asian Finance, 8(5), 627–0637. https://doi.org/10.13106/jafeb.2021.vol8.no5.0627

Simunic, D. A. (1980). The Pricing of Audit Services: Theory and Evidence. In Source: Journal of Accounting Research (Vol. 18, Issue 1).

Soyemi, K. A., & Olowookere, J. K. (2013). Determinants of External Audit Fees: Evidence from the Banking Sector in Nigeria. In Research Journal of

Finance and Accounting www.iiste.org ISSN (Vol. 4, Issue 15). Online. www.iiste.org

Taylor, M. H., & Simony, D. T. (1999). Determinants of Audit Fees: The Importance of Litigation, Disclosure, and Regulatory Burdens in Audit Engagements in 20 Countries. International Journal of Accounting, 34(3), 375–388.

Thinggaard, F., & Kiertzner, L. (2008). Determinants of Audit Fees: Evidence from a Small Capital Market with a Joint Audit Requirement. International Journal of Auditing, 12(2), 141–158. https://doi.org/10.1111/j.1099-1123.2008.00377.x

Urhoghide, R. O., & Izedonmi, F. O. I. (2015). An Empirical Investigation of Audit Fee Determinants in Nigeria. International Journal of Business and Social Research, 5(8), 48–58. http://www.thejournalofbusiness.org/index.php/site

Wallace, R. S. O., & Naser, K. (1995). Firm-specific determinants of the comprehensiveness of mandatory disclosure in the corporate annual reports of firms listed on the stock exchange of Hong Kong. Journal of Accounting and Public Policy, 14(4), 311–368. https://doi.org/10.1016/0278-4254(95)00042-9

Xu, Y. (2011). The Determinants of Audit Fees: An Empirical Study of China's listed companies [Master Thesis]. Lund University.

Xue, B., & O'Sullivan, N. (2023). The determinants of audit fees in the alternative investment market (Aim) in the UK: Evidence on the impact of risk, corporate governance and auditor size. Journal of International Accounting, Auditing and Taxation, 50. https://doi.org/10.1016/j.intaccaudtax.2023.100523

Yatim, P., Kent, P., & Clarkson, P. (2006). Governance structures, ethnicity, and audit fees of Malaysian listed firms. Managerial Auditing Journal, 21(7), 757–782. https://doi.org/10.1108/02686900610680530

Zhang, M. W., & Myrteza, S. (1996). The determinants of audit fees: Australian perspective. In Asian Review of Accounting (Vol. 4, Issue 1, pp. 81–97). https://doi.org/10.1108/eb060667