The effect of abnormal audit fees on audit quality: The moderating role of business characteristics: Empirical study on Egypt

Mostafa Ibrahim El-feky [a] and Ahmed Mahmoud Ahmed Elbrashy [b]

[a] Department of Accounting, Faculty of Commerce, Mansoura University, Egypt

[b] Delta higher institute for managerial and accounting information system, Egypt

*Corresponding author: m_i_elfeky@mans.edu.eg

Statistical Analysis for Credit Scoring based on Logistic regression model

Mostafa Ibrahim El-feky [a]

[a] Department of Accounting, Faculty of Commerce, Mansoura University, Egypt

Ahmed Mahmoud Ahmed Elbrashy [b]

[b] Professor of Statistics Faculty of commerce- Al-Azhar University (Girls Campus), Egypt.

Abstract:

This study aims to analyse the relationship between the abnormal audit fees and the audit quality by including the moderating variables which are related to business characteristics such as client complexity, audit report lag, audit committee independence and audit rotation. Based on 225 firm year observations through the time period 2017 to 2021 the study revealed that abnormal audit fees have no effect on the audit quality, i.e. the mean of abnormal audit fees in this study close to zero so it will not has a great effect on the audit quality because the lowest value of the abnormal audit fees of my study sample. But the business characteristics may have great effects on the relationship between the abnormal audit fees and the audit quality, because the firm characteristics may lead to more effort so the abnormal audit fees in this case will be explained, hence the relationship between the abnormal audit fees and the audit quality can be moderated by the business characteristics. In this context, we found the interactions with the abnormal audit fees and both audit committee independence and audit rotation have positively significant effect on the relationship between the abnormal audit fees and audit quality, so those business characteristics that related to the audit committee independence and audit rotation can moderate the relationship between the abnormal audit fees and audit quality. In addition the other business characteristics which are related to client complexity and audit report lag have no effect on the relationship between the abnormal audit fees and audit quality.

Key Words: Abnormal Audit Fees, Audit Quality, Business Characteristics, Client Complexity, Audit Report Lag, Audit Rotation, Audit Committee Independence.

*Corresponding author: m_i_elfeky@mans.edu.eg

1- Introduction:

Today, Business world imposed more financial distress on firms that require trying to overcome them through serious practices in earnings management; hence agency theory assumptions are fulfilled (Matoza, et al., 2020). In this context, the management need to improve its image in front of shareholders by auditor opinion, consequently abnormal audit fees can be justified and audit quality impaired (Nugroho & Fitriany, 2019). The client-auditor economic bonding is the main determinant of the audit quality, where abnormal audit fees express about the difference between the actual paid fees and normal level of fees for the audit engagement (Ridzky & Fitriany, 2022).

In this regard, Choi et al. (2010) divided abnormal audit fees into two types the first one is the positive abnormal audit fees which is higher than expected audit fees; and the other type is the negative abnormal audit fees which is lower than expected audit fees. Negative abnormal audit fees related to client's bargaining power, but the positive abnormal audit fees related to client-auditor economic bonding (Dabor & Benjamine, 2017). As a result, the auditor independence becomes threatening because the fees can be used as an incentive for achieving the client desires (Behrend, et al., 2020).

Based on the above theory, previous studies (e.g. Pennings et al., 2021; Behrend et al., 2020; Nugroho & Fitriany, 2019; Dabor & Benjamine, 2017) argue that audit quality can be impaired if the auditor will be overpaid because of the client-auditor economic bonding, which require greater benefit for both parties. On the other side, audit quality could be impaired also if the auditor less paid, where in this case the auditor does not make sufficient effort in the audit engagement (Asthana & Boone, 2012; Blankley et al. 2012; Knechel et al., 2013; Krishnan & Zhang, 2013; Ettredge et al. 2014).

According to agency theory, audit quality is an effective monitoring technique that detects manager manipulation and aligns the interests of shareholders and managers (Alzoubi, 2017). However, the implications of audit quality on the level of earning management remain an unresolved subject due to conflicting findings from previous studies (See: Aprilia & Kusumawati, 2023; Azizkhani et al., 2023). Similarly, business characteristics are usually regarded as major predictors of earnings management, but the outcomes vary.

Consequently, business characteristics participate in increasing or decreasing audit effort so the auditor was required to do differently effort in the audit engagement based on the difference of business characteristics, this Differential effort surely reflect on the audit quality (Azizkhani et al., 2023). In this line, previous studies showed that there are distinct characteristics may effect on audit quality such as client complexity (Morais, 2020), audit report lag (Hasballah & Ilyas, 2019), audit rotation (Aprilia & Kusumawati, 2023) and audit committee independence (Azizkhani, et al., 2023).

Client complexity indicate to the number of subsidiaries that auditors must be required to audit them, in this case the audit engagement will need more time and effort so the audit fees will be increased but the audit quality will be questioned, because the auditor may not do all requirements for subsidiaries audit engagement (Morais, 2020). In another vein, audit report

lag considered more audit effort and more audit quality, because the auditor is supposed to exercise full professional care therefore, he was late in issuing his report (Hasballah & Ilyas, 2019). But at the same time, audit report lag may indicate that the firm face accounting problems, or more problems between the audit teem and management which lead to put the audit quality in question (Gibbins et al., 2003). The increased problem between the audit team and management lead to more meetings of audit committee for solving this dispute unless this committee suffers from independence problems, which lead to more disputes put the audit quality in question again (Azizkhani, et al., 2023). Hence, the audit rotation may be a good solution for all dispute and independence problems, where audit rotation is double-edged tool for treating these problems, although audit rotation can mitigate the independence problems but it might give more visions for the external parties about the internal problems which put the audit quality in question again (Aprilia & Kusumawati, 2023).

In brief, the relationship between the abnormal audit fees and audit quality can be determined according to more different business characteristics because of the existence of client-auditor economic bonding. Consequently, in the Egyptian economic environment participate to create more financial distress, which lead business firms toward the intended earning management and exploiting the client-auditor economic bonding for achieving their goals of audit quality, but the differential characteristics of business in the economic Egyptian environment may lead to more complex relationship between the abnormal audit fees and audit quality because of the current economic crisis.

Based on the above discussion, the Egyptian economic environment strongly motivate this research, where this study contributes to the literature in two ways, the first one is explaining the relationship between the abnormal audit fees and audit quality form the perspective of the differential characteristics of business, secondly this study presents practical implications especially in determining the factors that may effect on the audit quality for the financially distressed firms which reflect on the investors and regulators.

The remainder of the paper is organized as follows. In Section 2, we provide the theoretical background and hypothesis development. In Section 3, we describe the data, sample construction, and variable measurement. In Section 4, we present the main empirical results. In Section 5, we report the results and conclude the paper.

2- Literature review & Hypotheses Development:

Abnormal audit fees express about the unexpected portion of fees that may have a negative impact on audit quality. According to client-auditor economic bonding, the abnormal audit fess may lead to more negative effects on the audit quality, where the auditor independence became threatened (Blankley et al., 2012). On the contrary, the abnormal audit fees may indicate to more effort for the auditor, so it is supposed to be overpaid for this extra effort, hence it is surely that audit quality will be increase (Asthana & Boone, 2012).

In the same context, the viewpoint of dividing the abnormal audit fees into positive and negative has appeared, where the positive abnormal audit fees indicate to the overpaid auditors and negative abnormal audit fees indicate to the less paid auditors, but in fact the results still

mixed (See: Asthana & Boone, 2012; Blankley et al., 2012; Choi et al., 2010; Matoza, 2020). In this regard, positive abnormal audit fees may be achieved because of extra effort or sacrificing independence, the first probability of extra effort mean increasing the audit quality, but the second probability of sacrificing independence mean decreasing the audit quality (Nugroho & Fitriany, 2019). In the other side, negative abnormal audit fees also have mixed results on the audit quality, where it can be explained through three probabilities; the first one is that the auditor less paid and will not scarify with his independence because of the high level of oversight from the regulators, consequently the positive effect on the audit quality will be appear; the second probability accepting the current less paid audit engagement because of the high audit fees from the same client in the future audits consequently the audit quality would be harmed because the client would practice more pressures on the auditor that threat its independence and forced him to accept some practices of earning management; finally although the auditor less paid but he will not be ready to give up the audit quality because the costs resulting from the poor audit quality is higher than its benefits because of the lawsuits (Ridzky & Fitriany, 2022). Based on the above discussion of the previous studies it is obvious the contrasting results, so we can develop the first hypothesis of this research as follow:

H1: Abnormal audit fees have a significant effect on audit quality.

Business characteristics are differential factors among firms and these characteristics imposed on the auditors are to change its ways for the audit engagement. In this regard, the main characteristics that will be focused on the current study are the client complexity, audit report lag, audit rotation and audit committee independence. Hence in line with the previous studies client complexity was estimated by business size including its subsidiaries, but in fact the favourable and unfavourable views of its effect on the audit quality appeared. From the favourable view more client complexity need more sized auditor who has a great capabilities for the audit engagement for this firm, so the auditor in this case will be overpaid and the quality of audit engagement still constant, therefore the client complexity in this case will boost the positive relationship between the abnormal audit fees and the audit quality (Al-Ghanem and Hegazy, 2011). On another side, client complexity supports the idea of hiring specialized auditors for examining more operations and finances consequently the abnormal audit fees became inevitable as a result of specialized effort from the auditor; in addition, the audit quality will be achieved because of the existence of the specialized auditor. Furthermore, arranged upon existence client complexity high trusted internal control systems, which can be dependable for achieving the speed response, thus audit engagement will take more effort for opinion about these systems and the auditor need extra pay for achieving more audit quality (Afify, 2009; Nelson and Shukeri, 2011).

The supporters of the opposing viewpoint ensure that client complexity have more complex transaction such as foreign sales, exports, segmentation, sales to nontax entities and governmental sales (Habib et al., 2019; Nazatul Faiza Syed Mustapha Nazri et al., 2012; Woo and Koh, 2001). According to this viewpoint the accounting system become more complex and requires managed and complex audit engagement. Consequently, the audit risk is increase and the auditor will demand extra pay, but the audit quality may not be achieved, and the material

errors may be found, and the auditor's reputation will be risky (Durand, 2019). In the same era, the corporate governance theory ensure that complexity in the firms transactions indicate to the existence of information asymmetry so the external auditor will need more extra pay for the extra audit processes, therefore the negative relationship between the abnormal audit fees and the audit quality will be clear when the client complexity found (Morais, 2020). Based on the above contradictory viewpoints we can develop the second hypothesis of this research as follow:

H2: Client Complexity has significant moderating effect on the relationship between the abnormal audit fees and audit quality.

Explaining the report lag causes require defining the aim of report lag before, where the most widely firms tend to delay its audited financial statements for giving signs for the other stakeholder about the effort size in preparing and auditing these financial statements. Consequently, there are three views for explaining the report lag causes; the first one is that audit lag support the idea of good work require more time, so the report lag ensure the audit quality, where the audit report lag mean the auditor do its best in audit engagement therefore the auditor wants more fees and the positive relationship between the abnormal fees and audit quality is confirmed (Bryant-Kutchera et al., 2013); the second viewpoint audit report lag more related by hiring more staff for dealing with the audit workload, hence increasing required fees and increasing the audit quality (Fischer & Marsh, 2018; Super & Shil, 2019); the final viewpoint audit report lag may give signs for the externals about the accounting problems in the firm so the audit task in this case become more riskier for the auditor and require more fees and not necessarily audit quality to be achieved because of the poor performance of the client (Soyemi, et al., 2019). Based on the above contradictory viewpoints we can develop the third hypothesis of this research as follow:

H3: Audit Report Lag has significant moderating effect on the relationship between the abnormal audit fees and audit quality.

Audit committee members also called independent directors because they have no relationship with any member of management, so they will be independent and able to neutrally judge on the auditor and management relationship, they also must not perform any executive missions (Chukwu and Nwabochi, 2019; Pérez-Cornejo et al., 2019; Apadore and Noor, 2013). Agency theory emphasizes the independence dilemma of audit committee through strict oversight, objectivity and overcome the management pressures, moreover, maintaining independence of the audit committee members helping in stakeholders' protection by creating balance in relationships so the financial decisions credibility increased (Katmon and Al Farooque, 2015). Consequently, the balance between the executive and non-executive members achieve the audit committee independence, this independence participate in balance between the management and the auditor hence the audit quality has been achieved, because the audit committee in this case will be able to solve all disputes between the auditor and the management (Firnanti and Karmudiandri, 2020; Soyemi et al., 2019; Armstrong et al., 2014).

In this context, the adequacy of independence for audit members which enables the effectiveness in the performance is still questionable; where some countries insist on the independence for all audit members meaning it should be all of them non-executive, but the other countries consider the majority of the audit committee members may be enough (Aprilia & Kusumawati, 2023). Based on the controversial views of the adequacy of audit committee, the independence will be has a great effect on the relationship between the auditor and management, because the audit committee Inadequacy will not be able to control the auditor-management relationship so the management will over pay the auditor and impair the audit quality or it will be less pay the auditor due to the disagreements between them and impair the audit quality again (Hasballah & Ilyas, 2019). Therefore, the audit committee independence still important characteristic can affect on the relationship between the abnormal audit fees and audit quality, so we can develop the fourth hypothesis of this study as follow:

H4: Audit committee independence has significant moderating effect on the relationship between the abnormal audit fees and audit quality.

Another major topic discussed in the literature is the effect of audit firm rotation on the relationship between the abnormal audit fees and audit quality. In this context, the two main contrasting viewpoints found; firstly the longer audit rotation leads to more knowledge about the firm and its financial transactions so the audit quality can be increased but the auditor independence may be threatened because of the closer relationship between the client and the auditor, in this case the auditor may need more fees for compromising his independence and the audit quality impaired, hence the relationship between the abnormal audit and the audit quality more obvious in the presence of audit rotation (Monroe & Hossain, 2013). Secondly, shorter audit rotation (maximum three years) increasing the auditor independence because the social relationship between the client and audit member staff will not be found, but in this case the client may less paid for the auditor because of the chance of changing the auditor in the next year, therefore the auditor will not care about achieving the audit quality (Aprilia & Kusumawati, 2023). Based on these two contrasting viewpoints, we can develop the fifth hypothesis of this research as follow:

H5: Audit Rotation has significant moderating effect on the relationship between the abnormal audit fees and audit quality.

3- Research Design:

3.1: Sample Selection:

The research population comprised all listed firms on the Egyptian Stock Exchange (ESE). In this study, the listed firms were assessed along five years from 2017 to 2021 which are 309 firms represent the study population. In this paper, chosen sampling technique is the intended sampling for the firms the following criteria:

- Chosen firms must not be classified neither in the banking sector nor in the financial services sector, due to this classification of firms have a special nature in the accounting issues differ from the other listed firms.
- They should have a change in the fiscal year or a change in activity.
- The dataset time series started at 2017 because of avoiding the economic events that happened on 2016 which are related to currency float in the Egyptian environment.
- Excluding all sectors those less than 8 observations in the year due to using cross sectional analysis for the dependent variable.

Based on the above criteria, the term dataset covers the Egyptian listed firms which are 75 firms though the time period 2017 to 2021 by 225 observations. Therefore, we can define the sampling procedures according to this table as follow:

Table No. 1: sampling Procedures

Procedure	Firms	Observations
Population	103	309
(-) Less listed firms in banking and financial firms' sectors	(19)	(57)
(-) Less listed firms' sectors that not valid for cross sectional method	(9)	(27)
Net Sample	75	225

3.2: Variables Measurement:

3.2.1: Audit Quality measure:

Audit quality refers to the auditor ability to diminish the managerial practices for earning management so it can be measured by the absolute value of discretionary accruals extracted from the Jones model as follow:

$$TACC/LagTA = \alpha_0 + \alpha_1(1/LagTA) + \alpha_2(\Delta REV - \Delta REC)/LagTA + \alpha_3(LagROA) + \alpha_4(PPE/LagTA) + \varepsilon$$

Where:

TACC = Total accruals, which equal the difference between the net income from the cash flow statement and the operational cash flow,

ΔREV = Change in revenue, measured by change in Sales it relative to Sales it-1,

ΔREC = change in net account receivable in year t relative to year t-1,

Lag ROA = Lagged return on assets in year t-1,

PPE = it is gross value of property, plant, and equipment in year t.

Lag TA = Lagged total assets in year t-1,

This model No. (1) will be run using cross-sectional analysis, that is, for each year separately, while the number of observations is not less than 8 in each sector. In this regard, the extracted residuals express about the accruals, so increasing these residuals means decreasing the audit quality because the auditor cannot diminish the managerial behaviour about earning management.

3.2.2: Abnormal Audit Fees measure:

Audit fees model is a multiple regression model in which the actual fees paid to the auditor for the audit process represent the dependent variable, while the independent variables represent all the factors that are supposed to have an impact on those fees, whether direct or inverse. By estimating the parameters of that model, and by evaluating the significance of these parameters, it is possible to identify the factors that have a significant impact on the fees paid to the auditor for the audit process. This model is represented as follow:

$$\text{ADFEES} = \beta_0 + \beta_1 (\text{CRISK}_{it}) + \beta_2 (\text{COMP}_{it}) + \beta_3 (\text{INDS}_{it}) + \beta_4 (\text{ADCOM}_{it}) + \beta_5 (\text{TPA}_{it}) + \beta_6 (\text{ARL}_{it}) + \varepsilon_{it}.$$

Where:

ADFEES = Natural log of actual paid audit fees.

CRISK = total liabilities scaled by the total assets.

COMP = square root of subsidiaries number.

INDS = dummy variable which is take 1 if the audit firm specialized and 0 otherwise.

ADCOM = dummy variable which is take 1 in case of role duality for CEO and 0 otherwise.

TPA = dummy variable which is take 1 in case of contractual first year for auditor-client and 0 otherwise.

ARL = Natural log of days passed from the fiscal year end and issuing the final audit report.

This model No. (2) will be run using cross-sectional analysis, that is, for each year separately, while the number of observations is not less than 8 in each sector. In this regard, the extracted residuals express about the abnormal audit fees, so increasing these residuals means increasing the abnormal audit fees where the positive number of residuals indicate the positive abnormal audit fees (over paid auditor), and the negative number of residuals indicate the negative abnormal audit fees (less paid auditor).

3.2.3: Business characteristics measures:

The main determined business characteristics on this research are client complexity, audit report lag, audit committee independence and audit rotation. In this regard, we can develop the measurement tools for these variables as follow:

- **Client Complexity:**

Client complexity expresses about the wide variety of firm activities because of its size and its subsidiaries, so it requires more effort in the audit engagement consequently this variable can be measured by the square root of subsidiaries number in the consolidated financial statements (Morais, 2020).

- **Audit report lag:**

For the audit report lag, it indicates the time period between the date of ending the fiscal year and the date of auditing the financial statement so this variable can be measured by natural log of this time period on days (Oktarina, 2015; Hasballah & Ilyas, 2019).

- **Audit rotation:**

Audit rotation aim to weaken the social ties between the client and the auditor by continuous rotation of the auditor for the firm, so this variable can be measured by dummy variable which is take 1 if the auditor contracting for the first year with the client and 0 otherwise (Monroe & Hossain, 2013; Aprilia & Kusumawati, 2023).

- **Audit committee independence:**

Audit committee independence emphasizes the integrity of financial reporting and the internal control system, so it must not be include any executive member or the majority of members must be non-executive consequently this variable can be measured by dummy variable which is take 1 if there are one or more members of the audit committee executive and 0 otherwise (Azizkhani, et al., 2023).

3.3: Empirical Model:

Following the Ordinary Least Squares (OLS) regression, we formulated the model No. 1 for assessing the first hypothesis; where this model includes the abnormal audit fees and the other control variables as predictors for the audit quality so we can develop this model as follow:

$$AQ = \beta 0 + \beta 1\ ABAF + \beta 2\ C.\ Size + \beta 3\ C.ROA + \beta 4\ AUDTYPE + \beta 5\ PV + \varepsilon \qquad (1)$$

Where, AQ stand for the audit quality score which extracted from Jones Model, and ABAF is the abnormal audit fees which are extracted from the residuals of the fees model, C.Size is the natural log of total assets in the end of fiscal year, C.ROA is profitability index which can be measured by net profit after tax scaled by total assets in the end of fiscal year, AUDTYPE is dummy variable which is take 1 if the auditor from the big 4 and 0 otherwise, Finally PV is dummy variable which is take 1 if the earning per share changed significantly from the past year and 0 otherwise.

Model 2; evaluate the second hypothesis in our analysis. It is including the moderating variable of client complexity with the other control variables and the dependent variable audit quality as follow:

$$AQ = \beta 0 + \beta 1\ ABAF + \beta 2\ ABAF \times COMP + \beta 3\ C.\ Size + \beta 4\ C.ROA + \beta 5\ AUDTYPE + \beta 6\ PV + \varepsilon \qquad (2)$$

Where, COMP is the client complexity which measured by the natural log of subsidiaries number of the firm which is disclosed in the financial statements, and the other variables defined above.

Model 3; assess the third hypothesis in our analysis. It is including the moderating variable of audit report lag with the other control variables and the dependent variable audit quality as follow:

$$AQ = \beta 0 + \beta 1\ ABAF + \beta 2\ ABAF \times ARL + \beta 3\ C.\ Size + \beta 4\ C.ROA + \beta 5\ AUDTYPE + \beta 6\ PV + \varepsilon \qquad (3)$$

Where, ARL is the audit report lag which measured by the natural log of passed days from the fiscal year end to the issuing the audit report, and the other variables defined above.

Model 4; evaluate the fourth hypothesis in our analysis. It is including the moderating variable of audit committee independence with the other control variables and the dependent variable audit quality as follow:

$$AQ = \beta 0 + \beta 1\ ABAF + \beta 2\ ABAF \times ADCOM + \beta 3\ C.\ Size + \beta 4\ C.ROA + \beta 5\ AUDTYPE + \beta 6\ PV + \varepsilon \qquad (4)$$

Where, ADCOM is the audit committee independence which measured by the dummy variable that take 1 in case of existing one or more of members executive and 0 otherwise, and the other variables defined above.

Model 5; assess the fifth hypothesis in our analysis. It is including the moderating variable of audit rotation with the other control variables and the dependent variable audit quality as follow:

$$AQ = \beta 0 + \beta 1\ ABAF + \beta 2\ ABAF \times TPA + \beta 3\ C.\ Size + \beta 4\ C.ROA + \beta 5\ AUDTYPE + \beta 6\ PV + \varepsilon \qquad (5)$$

Where, TPA is the audit rotation which measured by the dummy variable that take 1 in case of the first year between the client and the auditor and 0 otherwise, and the other variables defined above.

4- Results:

4.1. Descriptive statistics:

Descriptive statistics of our study variables are presented in the table No. 2, where the descriptive statistics express about the shape of sample in the purpose of comparing the results of our sample by the results of the other studies trying to generalize the results of our research.

Table No. 2: Summary Statistics

Variable	N	Mean	Std. Dev.	Min.	Max.
AQ	225	0.000	0.083	-0.226	0.471
ABAF	225	0.000	0.315	-1.251	0.983
COMP	225	0.821	0.187	0.301	1.079
ARL	225	1.516	0.921	1.397	1.954
TPA	225	0.360	0.110	0.000	1.000
ADCOM	225	0.408	0.080	0.000	1.000
C.Size	225	2.136	0.611	0.987	6.782
C. ROA	225	0.223	0.054	-0.151	0.315
AUDTYPE	225	0.444	0.055	0.000	1.000
PV	225	0.209	0.036	0.000	1.000

Based on the results presented in the above table, it is obvious that the mean of audit quality measured by the accruals equal (0.000) and this result indicate that our study sample interested in the quality of audit reporting where the mean is equal to zero so the accruals almost non-existent in the majority of observation in our sample and this result close to its counterparts in the previous studies (See: Aprilia & Kusumawati, 2023; Azizkhani et al., 2023; Hasballah & Ilyas, 2019).

Moreover the abnormal audit fees mean also equal to (0.000) so the abnormal results almost non-existent in the majority of observation in our sample, so our sample is optimal for generalization the results, in addition this result close to its counterparts in the previous studies (See: Pennings et al., 2021; Behrend et al., 2020; Nugroho & Fitriany, 2019).

Furthermore, the moderating variables which are the client complexity, audit report lag, audit rotation and the audit committee independence have means equal (0.821), (1.516), (0.360) and (0.408) respectively. These results indicate that all moderating variables have no extreme values and these results similar to its counterparts in the other previous studies (See: Hasballah & Ilyas, 2019; Morais, 2020; Aprilia & Kusumawati, 2023; Azizkhani, et al., 2023).

Finally, based on these results we can conclude that our results can be compared with the other previous studies in trying to generalize our results.

4.2. Pearson Correlation Matrix:

Correlation matrix aims to show the relationship nature among the study variables, in addition emphasis on non-existence of multicollinearity by the correlation coefficient among independent variables and the value of variance inflation factor (VIF).

According to the results in table 3 Panel A, there is no significant relationship between abnormal audit fees and audit quality; additionally, there is a significant positive relationship between audit report lag and the audit quality (where R = 0.128); besides the significant positive relationship between audit rotation and the audit quality (where R = 0.140) these results agree with the previous related studies (Monroe & Hossain, 2013; Aprilia & Kusumawati, 2023), both coefficients are positive so we can conclude that audit report lag and audit rotation have a positive effect on the audit quality i.e. they participate in increasing the audit quality. But it is clear that client complexity and audit committee independence have no relationship between them and the audit quality.

Table No. 3: Pearson Correlation Matrix

Panel A: Pairwise correlations for Basic Variables

	Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	VIF
(1)	AQ	1										--
(2)	ABAF	0.000	1									1.192
(3)	COMP	0.007	0.054	1								1.322
(4)	ARL	0.128*	0.016	0.050	1							1.230
(5)	TPA	0.140*	0.025	0.026	0.052	1						1.306
(6)	ADCOM	0.006	0.031	0.049	0.009	0.054	1					1.215
(7)	C.Size	0.012	0.015	0.007	0.021	0.045	0.018	1				1.341
(8)	C. ROA	0.223***	0.012	0.025	0.023	0.043	0.009	0.024	1			1.077
(9)	AUDTYPE	-0.030	0.017	0.020	0.005	0.016	0.024	0.053	0.021	1		1.111
(10)	PV	0.012	0.043	0.023	0.033	0.008	0.022	0.020	0.049	0.018	1	1.095

Panel B: Pairwise correlations for Moderated Model

	Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	VIF
(1)	AQ	1										--
(2)	ABAF	0.000	1									1.092
(3)	ABAF × COMP	0.022	0.050	1								1.131
(4)	ABAF × ARL	0.033	0.054	0.012	1							1.266
(5)	ABAF × TPA	0.143*	0.018	0.030	0.021	1						1.507
(6)	ABAF × ADCOM	0.147*	0.022	0.036	0.045	0.019	1					1.050
(7)	C.Size	0.012	0.015	0.030	0.018	0.025	0.040	1				1.183
(8)	C. ROA	0.223***	0.012	0.019	0.038	0.020	0.027	0.024	1			1.417
(9)	AUDTYPE	-0.030	0.017	0.018	0.029	0.012	0.049	0.053	0.021	1		1.306
(10)	PV	0.012	0.043	0.008	0.054	0.035	0.016	0.020	0.049	0.018	1	1.245

Note: *, ** and * indicate statistical significance at the 10, 5 and 1% levels, respectively**

In the same vein, Panel B from the same table ensure the above results, where the interaction between the abnormal audit fees and audit report lag has a significant positive relationship with the audit quality (where R = 0.143); besides interaction between the abnormal audit fees and audit rotation has a significant positive relationship with the audit quality (where R = 0.147) these results agree with the previous related studies (Aprilia & Kusumawati, 2023), both coefficients are positive so we can conclude that interactions between audit report lag and audit rotation with abnormal audit fees have a positive effect on the audit quality i.e. they participate in increasing the audit quality. Furthermore, the interactions between the abnormal audit fees and the other moderating variables which are client complexity and audit committee independence have no relationship with the audit quality.

It is worth mentioning, that VIF between the independent and control and the moderating variables are less than 10, in addition the coefficient correlations among them are less than 0.8, so we can ensure that multicollinearity problems are not found in our sample.

4.3. Hypotheses results:

The hypotheses of our results predict the effect of abnormal audit fees and the interactions between it and the other moderating variables, consequently we run the five regression models by the ordinary least square (OLS) and the results revealed by table No. (4).

The first column of table No. (4) Revealed the results of model No. (1), which is interested in the relationship between the abnormal audit fees and the audit quality, these results show that the abnormal audit fees and the other control variables can explain 15% from the change of the audit quality. Consistent with the previous studies (Matoza, et al., 2020), the results show that abnormal audit fees have no effect on the audit quality where (β = -0.066; T = -0.957 < 2). Also, all the control variables have no significant effect on the audit quality except the profitability index where (β = 0.233; T = 2.652 > 2) and has positive effect which means that increasing profitability lead to more audit quality as result of decreasing the management needs of earning management.

According to the client-auditor economic bonding, the audit quality impaired as a result of his sacrifice by the independence through the abnormal audit fees, in the descriptive of our sample the abnormal audit fees close to zero so its effect on the audit quality almost not exist, so we cannot assure that the relationship between them is not found, consequently in this study we can consistent with the previous studies (See: Pennings et al., 2021; Matoza, et al., 2020) and reject the first hypothesis of our research as follow: ***Abnormal audit fees have no significant effect on audit quality.***

Table No. 4: Hypotheses testing results.

Variables	(1)	(2)	(3)	(4)	(5)
ABAF	-0.066	-0.069	-0.072	-0.087	-0.064
	(-0.957)	(-0.983)	(-1.002)	(-1.175)	(-0.684)
ABAF × COMP		-0.084			
		(-0.675)			
ABAF × ARL			-0.056		
			(-1.307)		
ABAF × ADCOM				**0.162***	
				(2.670)	
ABAF × TPA					**0.229***
					(2.984)
C.Size	0.064	0.087	0.056	0.073	0.064
	(1.127)	(1.185)	(0.772)	(1.197)	(0.783)
C. ROA	**0.233***	**0.263***	**0.273***	**0.212***	**0.273***
	(2.652)	**(2.748)**	**(3.164)**	**(2.601)**	**(3.485)**
AUDTYPE	-0.089	-0.085	-0.078	-0.085	-0.056
	(-0.609)	(-1.255)	(-0.848)	(-0.740)	(-0.754)
PV	0.060	0.085	0.084	0.080	0.080
	(0.745)	(0.957)	(1.332)	(1.447)	(0.839)
Year fixed effect	*Included*	*Included*	*Included*	*Included*	*Included*
Industry fixed effect	*Included*	*Included*	*Included*	*Included*	*Included*
_cons	0.077	0.07	0.076	0.067	0.063
	(0.784)	(1.134)	(0.929)	(1.402)	(1.375)
N	225	225	225	225	225
R^2	0.19	0.25	0.18	0.20	0.18
adj. R^2	0.15	0.21	0.15	0.17	0.14

Note: *, ** and *** indicate statistical significance at the 10, 5 and 1% levels, respectively

The second column of table No. (4) Revealed the results of model No. (2), which is interested in the relationship between the interactions of client complexity with the abnormal audit fees and the audit quality, these results show that the interactions of client complexity with the abnormal audit fees and the other control variables can explain 21% from the change of the audit quality. Consistent with the previous studies (Morais, 2020), the results show that the interactions of client complexity with the abnormal audit fees have no significant effect on the audit quality where (β = -0.084; T = -0.675 < 2). Moreover, this model also ensure that abnormal audit fees have no effects on the audit quality where (β = -0.069; T = -0.983 < 2). Based on these results client complexity cannot moderate the relationship between the abnormal audit fees and the audit quality, so we can conclude that any more abnormal audit fees paid for the auditor really express about the extra effort for auditing the subsidiaries.

From the perspective of more fees equal more effort, the results show that the complexity of the client lead to more complex accounting environment, so the auditor put him in a risky engagement therefore he will need more fees. According to this perspective the abnormal audit fees can be explained so it will have no effect on the audit quality and by extension client complexity cannot moderate the main result between the abnormal audit fees and the audit quality where it still insignificant, so we can reject the second hypothesis of our research as follow: ***Client Complexity has no significant moderating effect on the relationship between the abnormal audit fees and audit quality***.

The third column of table No. (4) Revealed the results of model No. (3), which is interested in the relationship between the interactions of audit report lag with the abnormal audit fees and the audit quality, these results show that the interactions of audit report lag with the abnormal audit fees and the other control variables can explain 15% from the change of the audit quality. Consistent with the previous studies (Oktarina, 2015), the results show that the interactions of audit report lag with the abnormal audit fees have no significant effect on the audit quality where ($\beta = -0.056$; $T = -1.307 < 2$). Moreover, this model also ensure that abnormal audit fees have no effects on the audit quality where ($\beta = -0.072$; $T = -1.002 < 2$). Based on these results audit report lag cannot moderate the relationship between the abnormal audit fees and the audit quality, so we can conclude that any more abnormal audit fees paid for the auditor really express about the extra effort for auditing engagement.

From the viewpoint of audit report lag more related by hiring more staff for dealing with the audit workload, the audit engagement in our case required more staff for the extra work in the audit engagement therefore any more audit fees will mean more qualified staff to fulfil the mission consequently the abnormal audit fees can be explained and still the relationship between the audit abnormal audit fees and the audit quality insignificant and not moderated, so we can reject the third hypothesis of our research as follow: ***Audit report lag has no significant moderating effect on the relationship between the abnormal audit fees and audit quality***.

The fourth column of table No. (4) Revealed the results of model No. (4), which is interested in the relationship between the interactions of audit committee independence with the abnormal audit fees and the audit quality, these results show that the interactions of audit committee independence with the abnormal audit fees and the other control variables can explain 17% from the change of the audit quality. Consistent with the previous studies (See: Aprilia & Kusumawati, 2023; Azizkhani et al., 2023; Chukwu & Nwabochi, 2019), the results show that the interactions of audit committee independence with the abnormal audit fees have significant positive effect on the audit quality where ($\beta = 0.162$; $T = 2.670 > 2$). Moreover, this model also ensure that abnormal audit fees have no effects on the audit quality where ($\beta = -$

0.087; T = -1.175 < 2). Based on these results audit committee independence can moderate the relationship between the abnormal audit fees and the audit quality, so we can conclude that any more abnormal audit fees (over or less) paid for the auditor will positively increase the audit quality by the increasing of the audit committee independence.

From the viewpoint of the ability of the audit committee independence to solve the problems between the auditor and the client, where the balance between the executive and non-executive members achieve the audit committee independence, this independence participate in balance between the management and the auditor hence the audit quality has been achieved, because the audit committee in this case will be able to solve all disputes between the auditor and the management (Firnanti and Karmudiandri, 2020; Soyemi et al., 2019; Armstrong et al., 2014). So, we can accept the fourth hypothesis of our research as follow: *Audit committee independence has a positive significant moderating effect on the relationship between the abnormal audit fees and audit quality*.

The fifth column of table No. (4) Revealed the results of model No. (5), which is interested in the relationship between the interactions of audit rotation with the abnormal audit fees and the audit quality, these results show that the interactions of audit rotation with the abnormal audit fees and the other control variables can explain 14% from the change of the audit quality. Consistent with the previous studies (See: Monroe & Hossain, 2013; Aprilia & Kusumawati, 2023), the results show that the interactions of audit rotation with the abnormal audit fees have significant positive effect on the audit quality where ($\beta = 0.229$; T = 2.984 > 2). Moreover, this model also ensure that abnormal audit fees have no effects on the audit quality where ($\beta = -0.064$; T = -0.684 < 2). Based on these results audit rotation can moderate the relationship between the abnormal audit fees and the audit quality, so we can conclude that any more abnormal audit fees (over or less) paid for the auditor will positively increase the audit quality by the increasing of the audit rotation.

From the perspective of social ties between the client and the auditor, the shorter rotation for the auditor will increase the chance for the absence of these social ties so in this case any abnormal fees paid for the auditor express about more effort not for compromising his independence consequently audit quality can be increased and the relationship between the abnormal audit fees and the audit quality can be positively moderated (Aprilia & Kusumawati, 2023). So, we can accept the fifth hypothesis of our research as follow: *Audit rotation has a positive significant moderating effect on the relationship between the abnormal audit fees and audit quality*.

5- Discussion & Conclusion:

This study depends on 225 firm year observations from the Egyptian listed firms from the time period 2017 to 2021. Study results revealed that abnormal audit fees have no effect on the audit quality, i.e. the mean of abnormal audit fees in this study close to zero so it will not have a significant effect on the audit quality because the lowest value of the abnormal audit fees of my study sample. But the business characteristics may have great effects on the relationship between the abnormal audit fees and the audit quality, because the firm characteristics may lead to more effort so the abnormal audit fees in this case will be explained, hence the relationship between the abnormal audit fees and the audit quality can be moderated by the business characteristics. In this context, we found the interactions with the abnormal audit fees and both audit committee independence and audit rotation have positively significant effect on the relationship between the abnormal audit fees and audit quality, so those business characteristics that related to the audit committee independence and audit rotation can moderate the relationship between the abnormal audit fees and audit quality. In addition, the other business characteristics which are related to client complexity and audit report lag have no effect on the relationship between the abnormal audit fees and audit quality.

This research can be adding value for all external parties such as investors, regulators, managers, analysts, and auditors. For the investor understanding the relationship between the abnormal audit fees and the audit quality will help them in determining the efficient the investment decision in the stocks. Regard to the regulators identifying the relationship aid the regulators to control the client – auditor relationship by the business characteristics where it can moderate this relationship so regulators can make several legislations to control this relationship. On the other side, managers will determine how to deal with the auditor in light of business characteristics because its capability of moderating the relationship between them. Analysts will be benefit from this result through their recommendations about the audit quality and the level of earning management, as well as knowing the role of abnormal audit fees in affecting the audit quality from the business characteristics side will help them to define the right attitude of all listed firms. Finally, auditors will be aided by these results through achieving the balance in their relationship with the clients, where this balance helps in determining the optimal level of fees without compromising their independence.

6-References:

Afify, H.A.E. (2009). Determinants of audit report lag: does implementing corporate governance have any impact?. Journal of Applied Accounting Research, Vol. 10 No. 1, PP. 56-86.

Al-Ghanem, W. and Hegazy, M. (2011). An empirical analysis of audit delays and timeliness of corporate financial reporting in Kuwait. Eurasian Business Review, Vol. 1 No. 1, PP. 73-90.

Alzoubi, E.S.S. (2017). Audit quality, debt financing, and earnings management: Evidence from Jordan. Journal of International Accounting, Auditing and Taxation, Vol. 11, No. 1, PP. 51-76.

Apadore, K., and Noor, M. M. (2013). Determinants of Audit Report Lag and Corporate Governance in Malaysia. International Journal of Business and Management, Vol. 8, No. 15, PP. 151-163.

Aprilia, N. M., & Kusumawati, E. (2023). Effect of Audit Fee, Audit Tenure and Audit Rotation on Audit Quality with the Audit Committee as Moderation. The International Journal of Business Management and Technology, Vol. 7, No. 1, PP. 412-421.

Armstrong, C. S., Core, J. E., and Guay, W. R. (2014). Do independent directors cause improvements in firm transparency? Journal of Financial Economics, Vol. 113, No. 3, PP. 383-403.

Asthana CS and Boone JP (2012). Abnormal audit fee and audit quality. Auditing: A Journal of Practice and Theory, Vol. 31, PP. 1–22.

Azizkhani, M., Hossain, S., & Nguyen, M. (2023). Effects of audit committee chair characteristics on auditor choice, audit fee and audit quality. Accounting & Finance, Vol. 63, Iss. 3, PP. 3675-3707.

Behrend, M., K., Sarfraz, K. Y. and Park, S.J., (2020). Abnormal Audit Fees and Audit Quality: Evidence from the Korean Audit Market. Journal of International Accounting Research, Vol. 19, No.3, PP. 1-56.

Blankley A.I., Hurtt D.N. and MacGregor J.E. (2012). Abnormal audit fees and restatements. Auditing: A Journal of Practice and Theory, Vol. 31, PP. 79–96.

Bryant-Kutcher, L., Peng, E.Y. and Weber, D.P. (2013). Regulating the timing of disclosure: insights from the acceleration of 10-K filing deadlines, Journal of Accounting and Public Policy, Vol. 32, No. 6, pp. 475-494.

Choi, J.H., Kim, J.B., & Zang, Y. (2010). Do abnormally high audit fees impair audit quality?. Auditing: A Journal of Practice & Theory, Vol. 29, No. 2, PP. 115-140.

Chukwu, G. J., and Nwabochi, N. (2019). Audit Committee Characteristics and Timeliness of Corporate Financial Reporting in the Nigerian Insurance Industry. International Journal of Managerial Studies and Research, Vol. 7, No. 4, PP. 86-95.

Dabor, A. O., Benjamine, U. (2017). Abnormal Audit Fee And Audit Qualiy: A Moderating Effect of Firm Characteristics. Sriwijaya international journal of dynamic economics and business, Vol. 1, No. 4, PP. 327-340.

Durand, G. (2019). The determinants of audit report lag: a meta-analysis", Managerial Auditing Journal, Vol. 34 No. 1, pp. 44-75.

Ettredge, M., Fuerherm, E.E., & Li, C. (2014). Fee pressure and audit quality. Accounting, Organizations and Society, Vol. 39, No. 4, PP. 247-263.

Firnanti, F., and Karmudiandri, A. (2020). Corporate Governance and Financial Ratios Effect on Audit Report Lag. GATR Accounting and Finance Review, Vol. 5, No. 1, PP. 15- 21.

Fischer, M., & Marsh, T. (2018). Determinants of State Audit Delay: An Empirical Analysis. Journal of Accounting and Finance, Vol. 18, No. 9, PP.79-97.

Gibbins, M., McCracken, S., & Salterio, S. (2003). Auditor-client management negotiation concerning client's financial reporting: evidence from the client's side. Working paper, University of Alberta.

Habib, A., Bhuiyan, M.B.U., Huang, H.J. and Miah, M.S. (2019). Determinants of audit report lag: a meta-analysis. International Journal of Auditing, Vol. 23 No. 1, PP. 20-44.

Hasballah, H. S., and Ilyas, F. (2019). The substitution role of audit committee effectiveness and audit quality in explaining audit report lag. Accounting and Finance Review, Vol. 4, No. 1, PP. 28-37

Katmon, N., and Al Farooque, O. (2015). Exploring the impact of internal corporate governance on the relation between disclosure quality and earnings management in the UK listed companies. Journal of Business Ethics, Vol. 142, No. 2, PP. 345- 367.

Knechel R, Krishnan GV, Pevzner M. (2013). Audit quality: Insight from the academic literature. Auditing: A Journal of Practice and Theory, Vol. 32, PP. 385–421.

Krishnan G and Zhang Y (2013). Is there a relation between audit fee cuts during the global financial crisis and banks' financial reporting quality?, Journal of Accounting and Public Policy, Vol. 31, PP. 237–257.

Matoza, F., Biscotti, A. M., D'Amico, E., Strologo, A. D. (2020). Abnormal audit fees and audit quality. The impact of business context on auditors' priorities, Academy of Accounting and Financial Studies Journal, Vol. 24, Iss. 3, PP. 1-16.

Monroe, G., & Hossain, S. (2013). Does audit quality improve after the implementation of mandatory audit partner rotation. Accounting and Management Information Systems, Vol. 12, No. 2, PP. 263-279

Morais, D. A. F. (2020). The effect of client complexity on audit quality, master thesis, unpublished, faculty of business and economics, Catolica Lisbon University, Portuguese.

Nazatul F. S. M. N., Smith S., M. and Ismail, Z. (2012). Factors influencing auditor change: evidence from Malaysia. Asian Review of Accounting, Vol. 20 No. 3, PP. 222-240.

Nelson, S.P. and Shukeri, S.N. (2011). Corporate Governance and Audit Report Timeliness: evidence from Malaysia Accounting in Asia. Emerald Group Publishing, Bingley, Vol. 11, PP. 109-127.

Nugroho, B., Fitriany, F. (2019). Impact of Abnormal Audit Fees on Audit Opinion and Quality in ASEAN Countries, Pertanika J. Soc. Sci. & Hum. Vol. 27, No. 3, PP. 1959-1977.

Oktarina, R. (2015). Firm and Auditor Characteristics, and Audit Report Lag in Manufacturing Companies Listed on Indonesia Stock Exchange during 2008-2012. Expert Journal of Business and Management, Vol. 3, No. 1, PP. 13-26

Pennings, E., Georgakopoulos, G., Sikalidis, A., Grose, C. (2021). Abnormal Audit Fees and Audit Quality: the influence of financial expertise in the audit committee. Intellectual Economics, Vol. 15, No. 2, PP. 156-174.

Pérez-Cornejo, C., de Quevedo-Puente, E., and Delgado-García, J. B. (2019). How to manage corporate reputation? The effect of enterprise risk management systems and audit committees on corporate reputation. European Management Journal, Vol. 37, No. 4, PP. 505-515 .

Ridzky, M., Fitriany, F. (2022). The Impact of Abnormal Audit Fees on Audit Quality: A Study of ASEAN Countries, 2nd Virtual Conference on Social Science In Law, Political Issue and Economic Development, PP. 395-403.

Soyemi, K. A. S., Wasiu A. (2019). Corporate governance practices and external auditors' reporting lag in Nigeria. Accounting and taxation review, Vol. 3, No. 4, PP. 15 - 31.

Super, S. O., & Shil, N. C. (2019). Effect of Audit Delay on the Financial Statements. Sumerianz Journal of Economics and Finance, Vol. 2, No. 4, PP. 37-43.

Woo, E.-S. and Koh, H.C. (2001). Factors associated with auditor changes: a Singapore study. Accounting and Business Research, Vol. 31 No. 2, PP. 133-144.