

THE INFLUENCE OF THE ECONOMIC DEPENDENCE AND CLIENT IMPORTANCE ON AUDIT QUALITY: EVIDENCE FROM JORDAN

MUSTAFA A. S. ABU THIB¹, MOHD MOHID RAHMAT²,
ROMLAH JAAFAR³, INTAN MAIZA ABD⁴, DR. EHAD ALI FALAH
AL-SAAYDEH⁵

¹ ACCOUNTING LECTURER AT AL-QUDS OPEN UNIVERSITY, PALESTINE. HE COMPLETED HIS PH.D. AT THE FACULTY OF ECONOMICS AND BUSINESS, UNIVERSITI KEBANGSAAN MALAYSIA, IN 2024 WITH GRADUATED ON TIME (GOT). HIS RESEARCH INTERESTS ARE AUDITOR FOREIGN EXPERIENCE, ECONOMIC DEPENDENCY, CLIENT IMPORTANCE AND AUDIT QUALITY

² ASSOCIATE PROFESSOR AT THE CENTER FOR GOVERNANCE RESILIENCE AND ACCOUNTABILITY (GRACE), FACULTY OF ECONOMIC AND BUSINESS, UNIVERSITI KEBANGSAAN MALAYSIA. HE COMPLETED HIS PH.D. AT LA TROBE UNIVERSITY, MELBOURNE, AUSTRALIA, IN 2014. HIS RESEARCH INTERESTS ARE AUDIT QUALITY, AUDITOR-CLIENT RELATIONSHIPS, CORPORATE GOVERNANCE, AND CORPORATE REPORTING.

³ PROFESSOR AT FACULTY OF ECONOMIC AND BUSINESS, UNIVERSITI KEBANGSAAN MALAYSIA.

⁴ ASSOCIATE PROFESSOR AT FACULTY OF ECONOMIC AND BUSINESS, UNIVERSITI KEBANGSAAN MALAYSIA.

⁵ PH.D. HOLDER IN ACCOUNTING SPECIALIZING IN AUDITING. HE SERVES AS THE DIRECTOR GENERAL OF THE INCOME AND SALES TAX DEPARTMENT IN JORDAN. HE HAS EXTENSIVE EXPERTISE IN AUDITING, TAXATION, FINANCIAL REGULATION, AND PUBLIC REVENUE ADMINISTRATION.

Abstract

This paper investigates the effect of different levels of economic dependency (Audit fees, non-audit fees, and audit tenure), computation effect of audit fees and non-audit fees, audit fees and audit tenure, and non-audit fees and audit tenure, and client importance (the ultimate effect of audit fees, non-audit fees, and audit tenure) on audit quality among Jordanian companies during Arab spring. Audit quality is represented by earnings management, which is calculated through discretionary accrual. A fixed effect panel data analysis was employed to examine the hypothesis using 98 Jordanian-listed companies with the total observations of 686, during the Arab spring period from 2013 to 2019. . This paper utilizes Power dependency theory to support the study hypotheses. The findings show that fees, economic dependence, and client importance weaken the auditor's independence. The effect becomes strongly aligned with the increase in economic dependency. The findings support the power dependence theory that the economic dependence relationship may harm audit quality. This study is novel in examining the economic dependence and client importance by differentiating the degree of dependency, which is either individual fees and tenure, a collective effect of audit and non-audit fees and/or tenure, and a joint ultimate impact of the audit fee, non-audit fee, and tenure in Jordan post the Arab Spring. Our findings have substantial implications for policymakers, and regulators, to set up a new rule of regulation to protect and strengthen auditor independence while practicing in Jordan.

Keywords: Audit quality, Economic dependency, client importance, discretionary accruals, earnings management, Economic dependency.

1. INTRODUCTION

This paper investigates the effect of audit and non-audit fees, fee dependence, and client importance on audit quality among listed companies in Jordan by distinguishing the degree of economic dependency. The Arab Spring has shown that there is a difference in the Jordanian-Saudi position towards Arab issues regarding the Palestinian issue and the Qatar boycott (Mäkelä 2021). This conflict position caused Saudi Arabia to make

economic decisions against Jordan, which reduced Saudi aid to Jordan from USD\$80.7 million in 2016 to USD\$38.4 million in 2019 and reduced the amount of Saudi investment in Jordan from USD\$894 million in 2015 to USD\$184.8 million in 2019¹. Directly, the Saudian policies affected declining the Jordanian economy and led to the exit of a large number of Jordanian companies from the Amman Stock Exchange from 223 in 2013 to 184 in 2019. The number of audit firms participating in the audit of publicly listed companies also decreased from 38 in 2013 to 23 in 2019². Salehi et al. (2017) found that political and economic fluctuations due to the international sanctions imposed on Iran led to a decline in the Iranian economy and, consequently, increased competition between auditing firms. The competition allowed Iranian companies to exert pressure on auditing firms to reduce costs and obtain evaluations commensurate with the interests of the management. Likewise, the change in the structure of the Jordanian audit market may also lead to a decline in the number of audit firm clients.

This study concerns that the increased competition between audit firms may encourage them to keep clients for a long tenure to ensure the continued flow of audit fees. The audit firms may also tend to offer consulting and other non-audit services to the audited clients for access to more non-audit fees (Chyz et al. 2023; Eke et al. 2024; Friedrich et al. 2024; Pappert & Quick 2024; Shi et al. 2023). This circumstance may create fees, economic dependence, or ultimately client importance among the audit firms. The presence of fee dependence and client importance may impair auditors' skepticism and independence. Previous studies have indicated that the reason for the failure of the audit process is justified by the fact that the auditor relinquished part of the independence (Aobdia et al. 2024; Ji et al. 2024; Lin 2024; Mahieux 2024; Malakoute et al. 2023). However, it was not evident in the Jordanian audit market, specifically during the post of Arab Spring.

According to the power dependency theory, the auditor's incentives to waive independence relate to the importance of the client (Goldman & Barlev 1974), which is related to the degree of economic dependence of the auditor on the client (DeAngelo 1981). Many past studies such as Malakoute et al. (2023), Masyitah et al. (2023) and Raiszadeh et al. (2023) summarized that the audit fees, non-audit fees, and the audit tenure are among the most important variables that affect the independence of the auditor. Therefore, audit firms involved in a conflict with a client may be less willing to resist management pressure when there is a very competitive market for audit fees (Nurbaiti & Sabilla 2022). This gap motivates this study to examine the impact of client importance on audit quality in the highly competitive Jordanian market post the Arab Spring. In addition, many previous studies have measured fee dependence or client importance based on audit fees and non-audit fees separately (Alsuwaidi et al. 2024; Aflatooni & Khazaei 2020; Alharasis et al. 2021; Choi et al. 2024; Herman & Abbas 2024; Lin 2024 and Pratiwi et al. 2024)). This study argues that the strength of a client's impact on the auditor depends on the strength of the economic dependence of the auditor on the client (Emerson 1962; DeAngelo, 1981 and Nurbaiti & Sabilla 2022), which individual economic relations cannot observe. Thus, Nurbaiti & Sabilla (2022) and Alharasis et al. (2021) emphasize that the client's importance should be determined through a combined effect of audit fees and non-audit fees, and not separately. Meanwhile, Fadila et al. (2023), and Kalelkar et al. (2024) also emphasize that the length of the audit tenure also leads to an increase in the economic bonds between auditor and client despite audit and non-audit fees. It requires a more comprehensive measure that could differentiate fee dependency and client importance. However, the impact on audit quality was not evident in a competitive emerging market of Jordan which had been affected by the Arab Spring.

This study uses a sample of 686 years/observations of non-financial public companies listed in the Amman stock exchange from 2013 to 2019³. The study uses discretionary accruals, which are calculated by using the modified Jones' (1995) model to proxy audit quality. Overall, we find that all economic determinants, i.e., audit fee or non-audit fee, the combined and the ultimate client importance increased earnings management activities among listed companies in Jordan. The findings can be interpreted that the decline in the number of clients in the Jordanian audit market created fears among Jordanian audit firms of losing more clients, which led them less skeptical about client earning management activities.

Our study makes several important contributions to the literature. First, the study contributes by expanding evidence of fee dependence and client importance and audit quality relationship in the context of an emerging market with high competition among audit firms, particularly affected by the Arab Spring. Second, this study provides evidence about the impact of the auditor's degree of dependency on audit quality. Past studies often utilized audit fees and non-audit fees to represent economic dependency, this study expands the analysis by differentiating the degree of the economic dependency according to individual audit fees, non-audit fees or

³ <https://www.ase.com.jo/ar>

audit tenure, the combined effect of audit fees, non-audit fees, and audit tenure, and the ultimate client importance. The results of this study support arguments that economic dependence weakens audit quality. The findings also acknowledge that the greater the economic dependence or client importance the greater the potential to harm audit quality. This study also contributes input to the profession's regulators to set up a new rule of regulation that could enhance the auditor's independence. In addition, this study contributes to increasing the awareness of users of financial statements to understand the joint impact of economic dependence relationships rather than through one or two economic relationships.

This paper is organized as follows. The second section presents a review of the literature, theoretical framework, and hypotheses development. The next section discusses the methodology applied to the research, whereas the fourth section four points out the empirical findings. The final section presents a conclusion.

2. LITERATURE REVIEW, THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

2.1 Jordanian Audit Market Background

The political events, economic crises, and military wars that the Arab region witnessed had a noticeable impact on the development of the accounting profession in Jordan. Adhikari & Tondkar (1992) explain that the first stage of accounting in Jordan (bookkeeping) began with the entry of the British mandate into Jordan. Al-Rahahleh (2017) illustrate that with the beginning of the 1946 Palestine War and the transfer of companies from Palestine to Jordan, the Companies Law 10/1960 was issued. Moreover, Swaidan & Nica (2002) confirm that the issuance of Law 31/1976 resulted from the civil war in Lebanon and the transfer of the financial center of gravity from Lebanon to Jordan. The Iran-Iraq war and the decline of the Jordanian economy resulting from the decline in trade between Jordan and Iraq also led to the issuance of Law 23/1985 and the establishment of the Jordanian Association of Certified Public Accountants (JACPA) (Al-Farah et al. 2015).

According to Tayem et al. (2018) in 2010, the young Mohammed Bu-Aziz from Tunisia burned himself as it was the beginning of the Arab revolutions, which spread to many Arab countries. The impact of the Arab Spring on Jordan was limited to some protests, which quickly ended with royal promises to carry out comprehensive reforms to the ruling system. However, the events of the Arab Spring taking place in neighboring countries had an impact on the Jordanian economy due to its dependence on Gulf aid and Arab investments in Jordan. In South Jordan, in general, no violent or non-violent protests happened in the Gulf Cooperation Council (GCC). Although GCC participated in the finance and military in the Arab conflict, Saudi Arabia and UAE supported part of the conflict, but Qatar supported another part. Besides, therefore, Saudi Arabia and the Gulf States imposed a blockade on Qatar, which affected the relationship of Saudi Arabia with neighboring countries. Because of Jordan's position in support of Qatar, Saudi Arabia took political and economic decisions to punish Jordan for its position. These decisions were represented in reducing both Saudi investments in Jordan and Saudi aid to Jordan⁴. This led to a decline in the performance of the Jordanian economy, a decline in the number of Jordanian companies⁵, a decline in the number of audit offices⁶ due to a decline in the number of audit clients, and an increase in unemployment rates in Jordan.

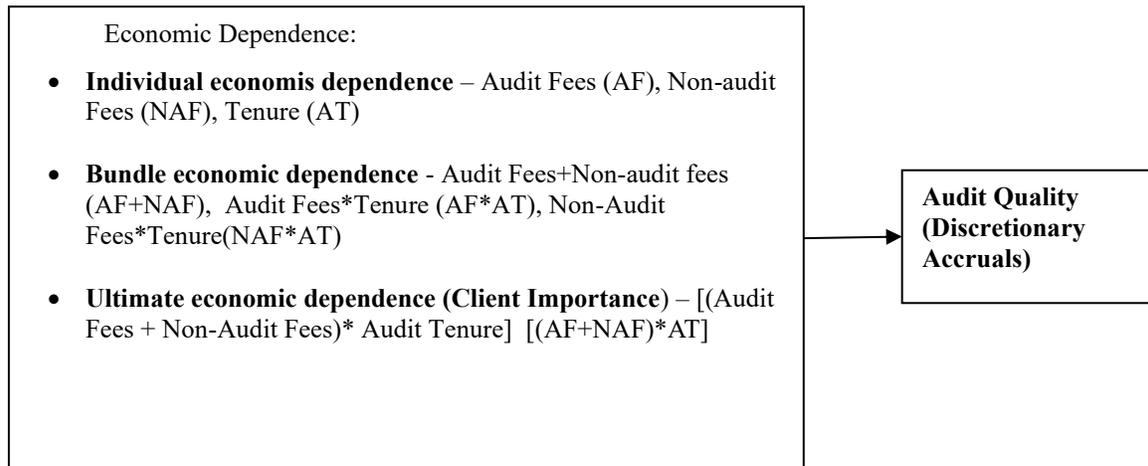
Economic relationships greatly influence the effectiveness of audit quality (DeAngelo 1981; Ji et al. 2024; Alharasis et al. 2021 and Lin 2024). Economic dependence relationships may harm audit quality. In this paper, the study's conceptual framework is shown in Figure 1. The dependent variable is audit quality, which is represented by the discretionary accruals. The independent variable is economic dependence, i.e., the audit firm's economic dependency on clients in terms of fees from audit service and non-audit services, and security of the fees that is represented by the appointment tenure.

⁴ www.cbj.gov

⁵ www.ase.com.jo

⁶ www.ase.com.jo

Figure 1: Research Framework



We define the audit firm’s economic dependence from three levels of dependency. First, is individual economic dependency, which is measured by the individual audit fees, non-audit fees, and auditor appointment tenure. Second, the bundle or joint economic dependency, which is measured by the joint effect of audit fees and non-audit fees (AF+NAF), the joint effect of audit fees and the audit tenure (AF*AT), and the joint effect of non-audit fees and audit tenure (NAF*AT). Finally, the ultimate economic dependency (client importance) is measured by the combination effect of the audit fees, non-audit fees, and audit tenure [(AF+NAF)*AT].

Previous studies have emphasized the relationship between audit fees, non-audit fees, and audit tenure based on agency theory in which higher audit fees or a relatively longer auditor tenure are associated with higher audit quality (Jensen & Meckling 1976). However, economic dependency theory indicates that economic relations between the auditor and the client negatively affect auditor independence. The influence of economic relations increases as the importance of the client increases. Previous studies indicate that audit fees, non-audit fees, and audit tenure are associated with low audit quality. Eke et al. (2024), Alsuwaidi et al. 2024, Herman and Abbas (2024) also explain that studying the joint impact of economic relations gives a clearer perception of the importance of the client.

This study embeds economic dependency theory to predict the impact of the Arab Spring, instability of political competition and competition in the audit market in small emerging economies in Jordan on audit quality. Specifically, competition in the audit market may create economic dependency among auditors to secure future income. This study concerns that economic dependency may affect the auditor's ability to exercise independence and thus reverse the impact of audit fees, non-audit fees, auditor tenure, and audit quality.

2.2 Audit quality, Client dependence, and Client importance.

The quality of financial reports is crucial, and it depends on audit quality which is represented by the auditor’s competency and independence to produce transparent financial statements that represent the reality of the project honestly and fairly. It is aligned with DeAngelo (1981) who defined audit quality as the probability that the auditor will be able to find and report a violation in the client's accounting system. Therefore, the quality of the audit cannot be judged solely by the auditor's experience and expertise, but rather it must be confirmed that the auditor is willing to report irregularities in the financial statements. To enhance an understanding of audit quality, the researchers attempted to explore audit quality at various levels.

An agency theory assumes that the auditor has independence (Jensen & Meckling 1976), however, economic dependence theory argues that the strength of the economic relationship between the auditor and the client may undermine the auditor's independence (Emerson 1962). Auditors have incentives to compromise their independence for the benefit of an economically important client, with the consequence that the greater the auditor's economic interest in the client, the lower the perceived probability that the auditor will report violations in the financial statements (Ji et al. 2024; Lin 2024; Alharasis et al. 2021; Mahieux 2024; Masyitah et al. 2023; Pappert & Quick 2024 and Raiszadeh et al. 2023). Many recent researchers agree that the ultimate determinant of audit quality is the ability of the auditor to report errors rather than the level of ability to detect errors. In many circumstances, the auditors may detect the errors, but the auditors tend to be influenced to report the errors.

Thus, researchers have shifted their focus to analyzing factors related to the auditor's desire to report errors, because they believe that when the auditor detects errors, it remains worthless if the auditors do not desire to or are influenced to report them. Fadila et al. (2023), Aflatooni & Khazaei (2020) and Kalelkar et al. (2024) summarize the most important factors that affect the auditor's desire to report breaches in financial statements, which are audit fees, non-audit fees, and audit tenure. It is necessary to further investigate the determinants and factors that could improve audit quality, mainly in Jordan because the Arab Spring has brought about changes in the structure of the Jordanian audit market. The decline in the performance of the Jordanian economy and the number of companies listed on the stock exchange has led to an increase in competition between auditing firms for continuing to obtain audit fees, which has increased economic dependence and client importance among Jordanian audit firms.

There is also empirical evidence that auditors have incentives to maintain independence due to reputation and litigation concerns (Akhori et al. 2023; Pratiwi et al. 2024 and Putra & Pratiwi 2024). However, some forces threaten auditor independence, and the incentives are related to the client's importance (Ji et al. 2024 and Lin 2024). Pappert & Quick (2024) also emphasized that many audit firms focus on revenue growth as a basic criterion for the firm's success and growth. Therefore, obtaining more audit and non-audit fees became an important strategy for achieving the firm's growth although, this strategy was criticized and concerned about conflicts of interest and violation of the auditor's independence. Friedrich et al. (2024), Ji et al. (2024), Pappert and Quick (2024) explain that there is a negative relationship between earnings management and the audit firms' high dependency on audit and non-audit fees. This effect is due to the rise in economic bonds (audit or non-audit fees) for the auditor at the client. Nevertheless, Pappert & Quick (2024) found that when companies pay low audit fees normally, they pay higher non-audit fees. Therefore, the economic dependence of audit firms should consider the joint effect of both audit and non-audit as well as the audit tenure rather than separate measures.

Besides, the auditors also have concerns about the possibility of their replacement or termination (Alharasis et al. 2021). Therefore, some auditors are prepared to compromise their independence to secure continued engagement. Although, Fadila et al. (2023), and Kalelkar et al. (2024) found that there is a positive effect of the length of the audit tenure on audit quality, the relationship turns negative when the audit firms have high dependency non-audit fees in a longer audit tenure. Additionally, Friedrich et al. (2024) are also concerned that the auditor is less independent when dealing with more important economic clients. In contrast, Goldman & Barlev (1974) assert that the client's impact on the auditor increases when they realize the more the auditor's economic dependence on the client. Therefore, the auditors' economic bonds on clients may result in weak independence, which raises negative effects on harming the audit quality (Choi et al. 2024; Ji et al. 2024; Lin 2024).

Aligned with Salehi (2019) that political and economic changes affect the audit market structure, the recent Arab Spring substantially reduced the number of Jordanian listed companies and predicted increased competition among the audit firms. Consequently, the economic dependence of auditing firms on clients also increased. The audit firms became more vulnerable to the loss of more audit clients due to the tighter competition between the audit firms and consequently made audit firms favor retaining clients to secure future income for survival in the Jordanian audit market. The strong competition among audit firms may harm audit quality. Aligned with the theory, we predict that the auditor's dependence on either audit fees, non-audit fees or reappointment tenure will harm audit quality, and thus, we state the H1(a) as below:

H1(a): There is a significant negative association between an audit firm's fees (audit and non-audit fees and tenure) and audit quality.

Additionally, the greater the dependency on clients the bigger the potential of audit quality becomes ruthless. If the auditors are appointed to provide a combination of services, which may include audit and non-audit services or provide individual services in a longer reappointment, the risk of audit quality diminishing is greater (Fadila et al. 2023). We argue the high dependency on the client (any combination of audit fees, non-audit fees, and audit tenure) may increase risks to audit quality. The scarce evidence about the combined economic dependency on audit quality leads this study to develop the below hypothesis:

H1(b): There is a significant negative association between a high audit firm's dependency on clients and audit quality.

We also argue that the potential impact of economic dependence on audit quality is most crucial when the client becomes important. When the auditors provide both audit and non-audit services to the same client in a long-term relationship, it will ultimately create client importance. The auditors were trapped in the client importance conflict and may be highly concerned about losing clients and willing to compromise audit quality (Eke et al. 2024; Alharasis et al. 2021 and Herman & Abbas 2024). However, the evidence is scarce in

Jordan that shows whether client importance harms audit quality, particularly post the Arab Spring. Thus, the following hypotheses are formulated:

H1(c): There is a significant negative association between client importance and audit quality.

3. METHODOLOGY

3.1 Sample and Data

This study used secondary data that was collected from the financial reporting of public companies listed on the Amman Stock Exchange. The sample was restricted to public companies listed on the Amman Stock Exchange, and the total population of listed companies that resulted from the Arab Spring is only 237 companies. The study period extends from the date of the impact of the Arab Spring on Jordan in 2013 until the beginning of Covid-19 (2013-2019). This study focused on non-financial companies; thus, 121 financial companies were excluded due to the difference in the characteristics of these companies. In addition, eighteen companies were excluded from the sample due to incomplete data from (2013-2019) on the selected parameters. As a result, the final sample consisted of 98 non-financial companies and the total sample for the seven years from 2013 to 2019 is 686 observations. Table 1 shows the final sample.

Table 1: Sample

Total population: companies listed on the Amman stock exchange website	237
Excludes	
financial sector	(121)
Companies incomplete data	(18)
Total sample	98
Total company-year observations (98*7)	686

3.2 Research Design

We test our hypothesis, i.e., the impact of audit and non-audit fees, audit tenure, economic dependence, and client importance on audit quality by using the panel data regressions model below:

$$DA_{it} = \beta_0 + \beta_1 \ln AF_{it} + \beta_2 \ln NAF_{it} + \beta_3 \ln AT_{it} + \beta_4 CS_{it} + \beta_5 LEV_{it} + \beta_6 LOSS_{it} + \beta_7 OCF_{it} + \beta_8 Big4_{it} + \beta_9 FGROWTH_{it} + \beta_{10} SGROWTH_{it} + \beta_{11} \sum INDUSTRY_{it} + \beta_{11} \sum YEAR_{it} + \varepsilon_{it} \quad eq. 1$$

$$DA_{it} = \beta_0 + \beta_1 \ln AF_{it} + \beta_2 \ln NAF_{it} + \beta_3 \ln AT_{it} + \beta_4 (\ln AF_{it} + \ln NAF_{it}) + \beta_5 (\ln AF_{it} * \ln AT_{it}) + \beta_6 (\ln NAF_{it} * \ln AT_{it}) + \beta_7 CS_{it} + \beta_8 LEV_{it} + \beta_9 LOSS_{it} + \beta_{10} OCF_{it} + \beta_{11} Big4_{it} + \beta_{12} FGROWTH_{it} + \beta_{13} SGROWTH_{it} + \beta_{14} \sum INDUSTRY_{it} + \beta_{15} \sum YEAR_{it} + \varepsilon_{it} \quad eq. 2$$

$$DA_{it} = \beta_0 + \beta_1 CI_{it} + \beta_2 CS_{it} + \beta_3 LEV_{it} + \beta_4 LOSS_{it} + \beta_5 OCF_{it} + \beta_6 Big4_{it} + \beta_7 FGROWTH_{it} + \beta_8 SGROWTH_{it} + \beta_9 \sum INDUSTRY_{it} + \beta_{10} \sum YEAR_{it} + \varepsilon_{it} \quad eq. 3$$

Where, *DA* is discretionary accruals (an absolute value). We use discretionary accruals as a proxy to represent audit quality, where a high audit quality would be represented by a lower magnitude of discretionary accruals. Accruals are likely to capture evidence of earnings management because they reflect managers' accounting estimates and accounting choices. The assumption is that opportunistic earnings manipulation compromises the quality of the information and that the high magnitude of discretionary accruals indicates that the auditor may not fulfill their mission of preserving the neutrality of the statements. The *DA* is measured by using the Dechow et al. (1995) model that identifies the practice of earnings management - more specifically, discretionary accruals. Dechow et al. (1995) provide evidence that the modified Jones model is the most powerful to detect earnings management among alternative models to measure unexpected accruals⁷.

⁷ The model is estimated as follows:

$$TACC_t = \Delta CA_t - \Delta Cash_t - \Delta CL_t + \Delta DCL_t - DEP_t \dots \dots \dots (Eq.1)$$

TACC_t = total accruals, calculated as reported earnings minus cash flow from operations;

ΔCA_t = average total assets;

ΔCash = change in cash and cash equivalents in year *t_1*;

ΔCL_t = change in current liabilities in the year *t_1*;

ΔDCL_t = change on short term debt included in current liabilities in the year *t_1*;

DEP_t = depreciation and amortization expense in the year *t_1*;

$$(TACC_t)/(A_t-1) = a_1 1/(A_t-1) + a_2 ((\Delta REV_t - \Delta REC_t))/(A_t-1) + a_3 (PPE_t)/(A_t-1) + \varepsilon_t \dots \dots (Eq.2)$$

TACC_t = Total accruals in year *t_1* divided by total assets in the year *t_1*;

We measured economic dependence by three different sets of measurements to differentiate the degree of dependency. The first measurement is based on the individual measure of economic dependence, which is operationalized by using the natural logarithm of audit fees (*lnAF*), non-audit fees (*lnNAF*), and auditor tenure (*five practices suggested by lnAT*). The second measurement is based on the combination of the measures, i.e., the natural logarithm of audit fees and non-audit fees (*lnAF_{it}+lnNAF_{it}*), the natural logarithm of audit fees and auditor tenure (*lnAF_{it}*lnAT_{it}*), and the natural logarithm of non-audit fees and auditor tenure (*lnNAF_{it}*lnAT*) (Fadila et al. 2023). The third is the ultimate measurement, i.e., client importance (*CI*), which is the combination of the audit fees and total non-audit fees earned by the same auditors times the number of years the auditor was reappointed (*(lnAF+lnNAF)*lnAT*).

Past studies suggested that a company's characteristics and ultimate ownership of clients may affect its financial reporting quality (Aobdia et al. 2024 and Chyz et al. 2023). Therefore, we include several variables that reflect client characteristics, namely, client size (*CS*), which is measured as the natural logarithm of total assets (Choi et al. 2024 and Lin 2024). *LEV* is a firm's leverage ratio, measured by total debt over total assets (Ji et al. 2024 and Pratiwi et al. 2024), *OCF* is an operating cash flow, measured by the company's operating cash flows divided by the average of the beginning and ending total assets (Ji et al. 2024 and Pratiwi et al. 2024). Firm growth, *F-GROWTH* is calculated as a book market-to-book value (Eke et al. 2024 and Herman & Abbas 2024), and sales growth, *S-GROWTH* is a change in the company's sales between the previous year and the fiscal year (Alharasis et al. 2021)

Following Friedrich et al. (2024) and Mahieux (2024), the auditor characteristics may affect audit quality, and therefore, we control the Big 4 as a dummy, which describes whether the auditor is coded as 1 for the Big 4 audit firms, or 0 otherwise. *INDUSTRY* is a vector representing three sectors (real estate, industry, and service), coded as a dummy for companies' industry 1 and otherwise 0, real estate 1 and otherwise 0, and service 1, otherwise 0. Meanwhile, *YEAR* is also a vector representing seven years from 2013 to 2019. *YEAR* is measured as a dummy variable, where the observation is in the year 2020, thus, coded as observation is coded as 1, and otherwise 0. Finally, ϵ is an error term.

4. RESULTS

4.1 Descriptive Analysis

Table 2 presents the descriptive statistics of all variables of the study. It includes information about mean, standard deviation, minimum, and maximum of 686 firm-year observations. Based on Table 2, the [DA], which is an absolute value of discretionary accruals, i.e., without the direction of the earnings management activities either to increase or decrease earnings. The average score for the [DA] is 0.175, with a range score between 0.152 and 0.255. On average, Jordanian companies practiced earnings management after the Arab Spring. For independent variables, the average value for audit fees (AF) is JD 14,324, with a range score between JD 800 and JD 150,000, and a standard deviation of 16.4. The results indicate that there is a large standard deviation in audit fees between companies. The reason for the high standard deviation is the lack of a specific standard for determining audit fees in a period (the Arab Spring) characterized by intense competition and a decline in the number of audit clients.

In addition, the average score of non-audit fees (NAF) is JD 2,182 with a minimum score of JD0 and a maximum score of JD3,580, and a standard deviation of 6.3. On average, the non-audit fees received by audit firms in Jordan are low. Moreover, the high standard deviation indicates that several Jordanian companies did not receive non-audit services. The Arab Spring led to a decline in the performance of the Jordanian economy, which prompted companies to reduce costs, including non-audit fees, which justifies the high standard deviation and low average level of non-audit fees.

ΔREV_t = revenues in the year t_1 fewer revenues in the year t_1-1 ;
 ΔREC_t = delta receivable in year t_1 less delta receivable in year t_1-1 ;
 PPE_t = gross property plant and equipment in the year t_1 ;

$DACC_t = TACC_t - NDACC_t$ (Eq. 3)

Which:

$DACC_t$ = absolute value of estimated total discretionary accruals;

$TACC_t$ = Total accruals in year t_1 ;

$NDACC_t$ = Non-discretionary accruals;

*** The non-discretionary accruals can be calculated with the next formula:

$(NDACC_t)/(A_{t-1}) = a_1 / (A_{t-1}) + a_2 ((\Delta REV_t - \Delta REC_t)) / (A_{t-1}) + a_3 PPE / (A_{t-1}) + \epsilon_t$ (Eq. 4)

Table 2: Descriptive Statistics

Variable	Panel A: Continuous Variables (n=686)				Panel B: Dummy Variables (n=686)	
	Mean	Std. Dev.	Min	Max	Frequencies	percentage
[DA]	0.175	0.135	0.152	0.255		
AF (JD)	14,324	16.4	800	150,000		
NAF (JD)	2,182	6.3	0	3,580		
AT (Year)	6.36	3.7	1	14		
lnAF	9.15	0.55	7.13	9.95		
lnNAF	3.16	1.98	2.30	8.01		
lnAT	1.59	0.80	0	2.63		
lnAF+lnNAF	11.56	0.45	9.95	15.32		
lnAF*lnAT	7.65	2.35	1.03	10.63		
lnNAF*lnAT	6.58	2.03	0.58	9.63		
CI	3.038	0.421	1.878	3.859		
CS	17.155	1.456	13.717	20.91		
LEV	0.56	0.48	0	1.56		
LOSS					163	0.239
OCF	19.02	1.458	0	15.28		
Big4					251	0.36
F-Growth	1.121	0.786	0.13	3.216		
S-Growth	-0.043	0.339	-1	0.73		

Note: [DA] is absolute value of discretionary accruals, lnAF is a logarithm of audit fees, lnNAF is a logarithm of non-audit fees, lnAT is a logarithm of audit tenure, lnCI is a logarithm of client importance, lnCS is a logarithm of client size, LEV is the company leverage, LOSS is indicating if a firm reports a loss, and 0 otherwise, lnCFO indicates a logarithm of Cash Flow Operating, scaled by total assets at the beginning of the year Big4 indicates the type of auditor who audits the company, F-Growth indicates book market-to-book value, and S-Growth indicates Change in sales between the previous year and fiscal year/previous year.

Regarding audit tenure, the average audit tenure (AT) is 6.36 with a minimum score of 0 and a maximum score of 14. On average, the client retention period is relatively long. This reflects the audit firms' fears of losing an important client, especially with the decline in the number of audit clients. Table 2 illustrates the average of lnAF+lnNAF 11.56 with a minimum score of 9.95 and a maximum score of 15.32. According to lnAF*lnAT, the average score is 7.65 with a minimum score of 1.03 and a maximum score of 10.63. For the lnNAF*lnAT the average score is 6.58 with a minimum score of 0.58 and a maximum score of 9.63. Client importance (CI) is 3.038, with a minimum value of 1.878 and a maximum value of 3.859.

4.2 Pearson Correlation Analysis

Table 3 presents Pearson correlation analysis to test multicollinearity problems between independent variables (Hsieh et al. 2020). The correlation matrix illustrated in Table 3 shows that none of the coefficient scores exceed the benchmark at the level of 0.8. The highest correlation is 0.68 between CI and AT, which suggests that multicollinearity should not be a major problem. Table 3 below presents the Tolerance and VIF values. The VIF values as indicated in the table show that all the values are below 10 as is also the case with Tolerance values which are above 0.10. This, therefore, implies that all independent variables in our models do not suffer multicollinearity problems.

Table 3: Pearson Correlation

	lnAF	lnNAF	lnAT	lnCI	lnCS	LEV	LOSS	OCF	Big4	F-Growth	S-Growth	Tolerance	VIF
lnAF	1												
lnNAF		1											
lnAT			1										
lnCI				1									
lnCS					1								
LEV						1							
LOSS							1						
OCF								1					
Big4									1				
F-Growth										1			
S-Growth											1		
Tolerance												0.63	1.6
VIF													1.6

lnNAF	0.10*	1													0.36	2.8
lnAT	0.16*	0.02	1												0.67	1.5
LnAF+lnNAF	0.53	0.47	0.43	1											0.81	1.2
lnAF*lnAT	0.29	0.47	0.47	0.52	1										0.42	2.4
lnNAF*lnAT	0.63	0.54	0.24	0.37	0.48	1									0.53	1.9
lnCI	0.73*	0.26*	0.68*	0.54	0.39	0.46	1								0.64	1.6
CS	0.11*	0.08	0.66*	0.11*	0.09	0.51*	0.39*	1							0.9	1.1
LEV	0.06	0.08	0.27*	-0.12*	0.04	0.14*	-0.29*	0.06	1						0.66	1.5
LOSS	-0.18*	0.01	-0.21*	-0.12*	-0.10*	-0.22*	0.52*	0.15*	-0.23*	1					0.75	1.3
OCF	0.09*	0.04	0.43*	0.09	0.08	0.34*	0.47*	0.21*	-0.12*	0.32*	1				0.62	1.6
Big4	0.04	0.14*	0.60*	0.10*	-0.04	0.34*	0.14*	0.16*	-0.17*	0.32*	0.22*	1			0.77	1.3
F-Growth	0.07	-0.09	0.24*	0.09	-0.03	0.10*	0.13*	0.04	-0.25*	0.09	0.07	0.06	1		0.9	1.1
S-Growth	0.34*	0.03	0.13*	0.07	-0.01	0.08	0.22*	0.43	-0.37	0.11	0.13	0.09	0.26	1	0.73	1.4

Note: *, **, *** represent significance at the level of $p < 0.10$, 0.05 , and 0.01 respectively. All those variables are defined in Table

4.3 Regression Results

We employed panel data analysis to match this study's objective. We do additional statistical tests i.e., Breusch and Pagan Lagrangian multiplier test and Hausmann test to determine which model is best fitted to the data which is either pooled least squares (OLS), fixed effect model (FEM) or random effects model (REM). The results were not reported but indicate that FEM is considered the most appropriate for analyzing the data in Model 1 and Model 2, while REM for Model 3. The results are shown in Table 4.

Table 4, in model 1 shows the results of individual effects of audit fees, non-audit fees, and audit tenure on audit quality. The results indicate that there is a significant positive relationship between $\ln AF$, $\ln NAF$, $\ln AT$, and absolute value of discretionary accrual (DA) with coefficient is 0.48 (t-value 3.1) significant at level $p < 0.01$, coefficient 0.03 (t-value 2.9) and coefficient 0.03 (t-value 2.5) significant at level $p < 0.05$ respectively. This approach is in line with the theory of economic dependency and several past studies like (Eke et al. 2024; Friedrich et al. 2024; Ji et al. 2024; Pappert & Quick 2024 and Shi et al. 2023) to support the H1(a). These results can be interpreted as the audit firm's economic dependency on the individual attributes harms audit quality and allows companies to be involved in more earnings management activities.

In addition, in model 2, the results show that there is a significant positive relationship between a combination effect of audit fees and non-audit fees ($AF+NAF$) and the absolute value of discretionary accrual, with a coefficient of 0.42 (t-value 4.2). A combination effect of audit fees and audit tenure ($AF*AT$) also has a significant positive relationship with discretionary accrual, with a coefficient of 0.01, (t-value 3.9). Meanwhile, the combination effect of non-audit fees and audit tenure ($NAF*AT$) has a positive effect on the absolute value of discretionary accrual with a coefficient of 0.01 (t-value 3.7). All associations are significant at level $p < 0.01$. This approach is in line with the theory of economic dependency and several past studies, including Kalelkar et al. (2024), Lin (2024) and Mahieux (2024) to support the H1(b). It can be interpreted that the combination effect of audit fees, non-audit fees and tenure increases audit firms' dependency on their clients, which is represented by the decrease in audit quality.

Table 4: economic dependence and audit quality.

	Model 1		Model 2		Model 3	
[DA]	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
$\ln AF$	0.48	3.1***				
$\ln NAF$	0.03	2.9**				
$\ln AT$	0.03	2.5**				
$\ln AF + \ln NAF$			0.92	4.2***		
$\ln AF * \ln AT$			0.01	3.9***		
$\ln NAF * \ln AT$			0.01	3.7**		
$\ln CI$					0.415	4.7***
$\ln CS$	0.14	2.39**	0.31	1.15	0.36	0.69
LEV	0.97	3.3***	0.42	2.4**	1.21	2.3**
LOSS	0.08	3.2***	0.56	0.1	0.16	0.9
$\ln CFO$	0.86	2.5**	0.43	1.82*	0.78	1.74*
Big4	-0.72	-4.6***	-0.58	-2.87**	-0.63	-1.85*
F-Growth	0.02	1.53*	0.23	0.98	0.52	0.66
S-Growth	-0.86	-3.2***	-0.75	-3.15***	-0.69	-3.04***
Constant	21.80	3.7	37.45	2.1	50.43	1.51
Year	Controlled		Controlled		Included	
Industry	Controlled		Controlled		Included	
R ²	54.60%		63.60%		65.40%	
Prob > F	0.000***		0.000***		0.000***	
observations	686		686		686	

Note: *, **, *** represent significance at 10%, 5%, and 1%, respectively. All those variables are defined in Table 2.

According to Table 4, model 3, the findings indicate that there is a significant positive relationship between client importance (CI) and the absolute value of discretionary accrual with a coefficient of 0.45 (t-value 4.2) significant at level $p < 0.01$. This direction indicates that client importance reduces audit quality by allowing

clients to engage in more earnings management via discretionary accrual. This approach is in line with the theory of economic dependency and several past studies like (Akhor et al. 2023; Ji et al. 2024; Lin 2024 and Masyitah et al. 2023) to support the H1(c).

Additionally, based on these three models, the t-value of joint effect is larger than the t-value of the individual measurements. Meanwhile, the t-value of *CI* in model 3 is also larger than the t-value of the joint effects in model 2. The statistics show that the negative impact of economic dependence on audit quality becomes more severe when the degree of dependence or client importance increases. The results show that the ultimate measure of the client's importance gives a comprehensive and clear perception of the client's economic impact on the quality of the audit. It may be explained by the fact that the decline in the number of audit clients increases the audit firms' fears of losing important audit clients because they have a significant impact on the audit firm's income. Therefore, the more substantial (ultimate) economic dependence of auditors on their clients increases the importance of clients on auditors which would affect audit quality severely. Therefore, the auditors may be willing to compromise and waive part of their independence to preserve the client, which leads to poor audit quality. It is consistent with economic dependency theory, auditor-client relationships based on economic dependency relationships weaken audit quality (Akhor et al. 2023; Aobdia et al. 2024; Eke et al. 2024; Ji et al. 2024; Mahieux 2024; Masyitah et al. 2023 and Pappert & Quick 2024). The different levels of the negative impact can be perceived clearly according to the level of dependencies either individually, bundled, or ultimately important.

According to Table 4, the control variables that differentiate companies' characteristics, i.e., client size (*CS*), *LOSS*, and firm growth (*F-Growth*) have significant positive associations with the absolute value of discretionary accrual on model 1 but not significant in model 2 and model 3. The leverage (*LEV*) and the operating cash flow (*OCF*) have significant positive associations with the absolute value of discretionary accrual in all models. Meanwhile, sales growth (*S-Growth*) and audit quality (*Big 4*) have significant negative associations with the absolute value of discretionary accrual in all models. The results for both *INDUSTRY* and *YEAR*, are consistent with previous studies such as (Kalelkar et al. 2024 and Lin 2024).

4.4 Additional and Robustness Analysis

4.4.1 Different Measurements for Audit Fees, Non-Audit Fees, and Audit Tenure.

Prior studies indicate that there may be more than one proxy for measuring the effect of a variable. However, the results of the different measurements for the same variable should be close to each other. Therefore, the study conducts an additional analysis of each of the audit fees, non-audit fees, and audit tenure to ensure the robustness of the previous analysis. According to Putra & Prastiwi (2024) audit fees and non-audit fees can be measured by dividing audit fees by total assets. Moreover, Yayangida et al. (2023) explain that audit tenure can be divided into two periods, less than three and more than three years reappointment. Thus, the company is coded as 0 if it has been audited by the same audit firm for less than 3 years, and 1 otherwise.

Table 5 Analysis of the effect of economic dependence, combination effect and client importance, using two measures

Panel A: Measurement - Natural logarithm						
Model	Model 1		Model 2		Model 3	
[DA]	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
lnAF	0.48	3.1***				
lnNAF	0.03	2.9**				
lnAT	0.03	2.5**				
LnAF+lnNAF			0.92	4.2***		
lnAF*lnAT			0.01	3.9***		
lnNAF*lnAT			0.01	3.7***		
LnCI [(LnAF+lnNAF)*lnAT]					0.415	4.7***
observations	686		686		686	
Panel B: Measurement -Ratio						
Model	Model 1		Model 2		Model 3	
[DA]	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
AF/Total Assets	0.28	2.88**				

NAF/Total Assets	0.03	2.44**				
AT(1= 3 years and above, otherwise 0)	0.05	2.16**				
(AF + NAF)			0.85	4.4***		
(AF*AT)			0.05	3.81***		
(NAF*AT)			0.06	3.76***		
CI = [(AF+NAF*AT)]					0.348	4.83***
observations	686		686		686	

Note: *, **, *** represent significance at 10%, 5%, and 1% respectively, [DA] is absolute of discretionary accruals, lnAF is a logarithm of audit fees, AF is audit fees /total assets, lnNAF is a logarithm of non-audit fees, NAF is non-audit fees / total assets, lnAT is a logarithm of audit tenure, AT is coded as 0 for less than 3 years, and 1 otherwise,

Table 5 shows the results of the economic dependence when using different proxies. The results indicate slight changes in the analysis outcomes when switching from one proxy to another. According to Table 5, economic dependence attributes (AF, NAF, and AT) are consistent with the main results, however, the impact of each attribute is slightly reduced respectively. Meanwhile, Table 5, Model 2 show the combination effect of [(AF*NAF), (AF*AT), and (NAF*AT)] also significant and consistent with the main findings respectively, again the impact is also reduced. In addition, the results of Model 3 indicate slight changes in the analysis outcomes when using a different proxy to measure client importance. Table 3 shows the client important has the same association with the absolute discretionary accrual, consistent with the main analysis, also the impact is found to be reduced slightly. Overall, although the coefficients are slightly different, the study finds that the results are consistent after using a different measure for the audit, non-audit fees and auditor tenure. These findings confirm that our models are robust enough to provide evidence for the developed hypotheses.

4.4.2 Discretionary accruals with incentives to increase or decrease earnings.

This study expands the analysis to determine the associations between economic dependency and audit quality by considering the incentives of earnings management in Jordanian companies either income-increasing or income-decreasing (Kalelkar et al. 2024 and Putra & Prastiwi 2024). Table 6 shows the results are positive and significantly associated with *lnAF*, *lnNAF*, *lnAT*, *lnAF+lnNAF*, *lnAF*lnAT*, *lnNAF*lnAT* and *lnCI* and discretionary accruals (DA). Overall, the findings are consistent with the main analysis after considering the incentives of earnings management activities. The hidden reason behind managers' intention to increase income may cause the decline in companies' performance in the Jordanian market, which prompted managers to practice aggressive behavior to improve the image of the financial statements.

Table 6: The association's analysis according to earnings management's incentives

(DA)	Model 1		Model 2		Model 3	
	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
lnAF	0.46	3.12***				
lnNAF	0.03	2.8**				
lnAT	0.04	2.45**				
LnAF+lnNAF			0.92	4.1***		
lnAF*lnAT			0.001	3.8***		
lnNAF*lnAT			0.001	3.72**		
lnCI					0.41	4.7***
LnCS	0.14	2.37**	0.31	1.16	0.36	0.72
LEV	0.97	3.32***	0.42	2.3**	1.21	2.34**
LOSS	0.08	3.1***	0.56	0.09	0.16	0.97
LnCFO	0.86	2.53**	0.43	1.80*	3.12	1.71*
Big4	-0.72	-4.6***	-0.58	-2.85**	-0.63	-1.82*
F-Growth	0.02	1.54*	0.23	0.89	0.52	0.62
S-Growth	1.11	-3.2***	0.0	-3.15***	1.25	-3.04***
Constant	21.80	3.6***	37.45	2.2**	50.43	1.97*

Year	Controlled (fixed effect)	Controlled (fixed effect)	Included
Industry	Controlled (fixed effect)	Controlled (fixed effect)	Included
R ²	55.60%	64.60%	67.40%
Prob > F	0.000***	0.000***	0.000***
Number of observations	686	686	686

Note: *, **, *** represent significance at 10%, 5%, and 1%, respectively, [DA] is the absolute value of discretionary accrual. All those variables are defined in Table 2.

4.4.3 Influence of corporate governance

Previous studies have proven that corporate governance practices affect audit quality (Kalelkar et al. 2024; Lin 2024; Putra & Prastiwi 2024; Yayangida et al. 2023). However, the main analysis did not address the effect of corporate governance because disclosure of corporate governance attributes in the financial reports of Jordanian companies was not applied until after 2017. A robust analysis is conducted to examine the effect of corporate governance on the associations between economic dependence and audit quality. We re-estimated the models by controlling the corporate governance effect, coding as a dummy variable, which is equal to 1 for observations after the implementation of corporate governance (2017–2019) and otherwise 0. Table 7 shows that there is a significant negative association between corporate governance and absolute discretionary accruals in all the models. Although the effect of corporate governance on discretionary accruals is weakened, the new implementation of corporate governance is effective in reducing discretionary accruals among Jordan-listed companies. In model 1, the result of audit fee dependence is consistent to increase earnings management activities that indicate harmful audit quality. Additionally, the presence of corporate governance is effective in reducing the negative impact of economic dependence on audit quality as the audit fees coefficient (t-value) decreased from 0.462 (t-value = 3.1) at level $p < 0.01$ to coefficient 0.40 (t-value = 2.5) at a level $p < 0.05$. Meanwhile, the study also finds that the effect of an auditor's dependency based on non-audit fees and reappointment tenure becomes insignificant in the presence of corporate governance.

Table 7: The associations' analysis by controlling corporate governance attributes.

	Model 1		Model 2		Model 3	
[DA]	Coefficient	t-value	Coefficient	t-value	Coefficient	t-value
lnAF	0.4	2.50**				
lnNAF	0.01	0.71				
lnAT	0.02	0.84				
lnAF+lnNAF			0.35	3.9***		
lnNF*lnAT			0.43	3.5***		
lnNAF*lnAT			0.27	3.43**		
lnCI					0.05	3.95***
LnCS	4.05	2.09**	0.35	2.12**	0.07	0.76
LEV	0.97	3.26***	0.91	3.17***	-0.84	-1.81*
LOSS	0.17	4.42***	0.12	4.12***	0.64	3.96***
LnCFO	-0.78	-1.77*	-0.67	1.2	-0.96	-0.53
Big4	0.83	4.42***	0.67	4.22***	-0.05	-0.21
F-Growth	0.04	1.89*	0.06	1.69*	-0.16	-1.7*
S-Growth	1.01	3.16***	0.89	3.06***	-1.35	1.02
CG	-0.32	-1.80*	-0.29	-1.71*	-0.31	-1.60*
Constant	16.03	1.92*	18.38	1.92*	-23.1	-0.68
YEAR	Controlled (fixed effect)		Controlled (fixed effect)		Included	
INDUSTRY	Controlled (fixed effect)		Controlled (fixed effect)		Included	
R ²	57.39%		61.34%		65.80%	
Prob > F	0.000***		0.000***		0.000***	
n	686		686		686	

Note: *, **, *** represent significance at 10%, 5%, and 1%, respectively. (DA) is discretionary accruals. CG is corporate governance 1 after 2017, 0 before 2017. All those variables are defined in Table 2.

In addition, in model 2, corporate governance reduces the joint effect of (lnAF+lnNAF), (lnAF*lnAT), and (lnNAF*lnAT) from the coefficient 0.92 (t-value 4.2), 0.01 (t-value 3.9) and 0.01(t-value 3.7) to the coefficient 0.35 (t-value 3.9), 0.43(t-value 3.5), and 0.27 (t-value 3.43) respectively. Meanwhile, Table 6 Model 3 also shows the client importance decreases from the coefficient 0.41 (t-value 4.7) to 0.05 (t-value 3.9). Overall, the presence of corporate governance practices reduces the negative impact of economic dependence, Bundle economic dependence, and client importance on audit quality. These results are consistent with the prior studies such as Kalelkar et al. (2024), Lin (2024), Putra & Prastiwi (2024) and Yayangida et al. (2023) to show the importance of effective corporate governance in minimizing opportunistic behavior among the top management.

5. CONCLUSION

Audit quality depends on the auditor's willingness and ability to report misstatements in the financial statements (DeAngelo 1981). Economic dependency theory indicates that economic relations between the auditor and the client weaken the auditor's ability to resist client pressures (Emerson 1962). According to previous studies Malakoute et al. (2023), Masyitah et al. (2023) and Raiszadeh et al. (2023) audit fees, non-audit fees, and audit tenure are considered the most important economic relationships between the auditor and the client which influence auditor independence. However, DeAngelo (1981) believes that studying the impact of economic relationships individually does not give a clear perception of the strength of the economic relationship between the auditor and the client. Therefore, overall economic relations must be studied.

This paper examines the impact of economic dependence (audit fees, non-audit fees, and audit tenure), the joint effect of (audit fees and non-audit fees) (audit fees and audit tenure) and (non-audit fees and audit tenure) and client importance of the ultimate effect of audit fees, non-audit fees and audit tenure and audit quality in the highly competitive audit market in Jordan. The findings show that there is a positive and significant relationship between economic relationship (measured by individual and joint effect of audit fees, non-audit fees, and audit tenure) and the joint effect of (audit fees and non-audit fees) (audit fees and audit tenure) and the ultimate effect of audit fees, non-audit fees and audit tenure as client importance and discretionary accruals, which implies that the client economic dependence, the joint effect of economic relationship and client importance harm audit quality. The findings show There is a negative impact more severe aligning with the increased level of economic dependency and becomes worse when the client is ultimately important. This implies that client importance has a negative strong effect on audit quality.

This study supports the economic dependency theory that economic relationships affect auditor independence and audit quality. In addition, this study adds new evidence to previous literature that the joint effect of economic relations gives a clearer perception of the impact of economic relations on audit quality. Moreover, this paper provides a more comprehensive perspective to define and measure economic dependence and the ultimate client importance. The Arab Spring led to a change in the structure of the audit market in Jordan. Therefore, this paper helps the organizational structures to update the laws on audit fees, non-audit services, and the audit period to weaken the influence of the client and enhance the independence of the auditor. This study focused on the impact of economic dependence and client importance on audit quality during political changes in Jordan, where the landscape of investigations into other economic relation influences can be applied or generalized in other countries experiencing political changes. The results of these findings can serve as valuable input for regulators to reconsider the rules for determining audit fees, providing non-audit services and the audit tenure, drawing a clear relationship between the auditor and the client, to ensure the independence of the auditor in Jordan, especially during the period of political and economic fluctuations, which led to changes in the structure of the Jordanian audit market during the Arab Spring.

Additionally, this study is focused on non-financial Jordanian companies, which subsequently, would limit the generalization of the findings to all Jordanian financial companies. Further research can be conducted on Jordanian financial companies as well as use other proxies or attributes of audit quality. Therefore, the search can be conducted using another proxy to ensure the accuracy of the results.

Acknowledge: The authors gratefully acknowledge the financial support from the Faculty of Economics and Management, Universiti Kebangsaan Malaysia (UKM) under Geran Inisiatif Penyelidikan, EP-2023-071 and Ganjaran Penerbitan, GP-2021 K010625.

REFERENCES:

1. Adhikari, A. & Tondkar, R. H. 1992. Environmental factors influencing accounting disclosure requirements of global stock exchanges. *Journal of International Financial Management & Accounting* 4(2): pp75–105.
2. Akhor, S. O., Dabor, A. O., Ashaju, K. I., Osifo, O. U., Adoghe, F., Ogbeide, F., Aronmwan, J. E., et al. 2023. The effect of non-audit services on audit quality. *Corporate Governance and Organizational Behavior Review* 7(4): pp326–333.
3. Al-Farah, A. R., Abbadi, S. & AL Shaar, E. 2015. The accounting and auditing profession in Jordan: Its origin and development. *Developing Country Studies* 5(8): pp167–179.
4. Al-rahahleh, A. S. 2017. Corporate governance quality, board gender diversity and corporate dividend policy: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal* 11(2): pp86–104.
5. Aobdia, D., Choudhary, P. & Newberger, N. 2024. The economics of audit production: What matters for audit quality? An empirical analysis of the role of midlevel managers within the audit firm. *The Accounting Review* 99(2): pp1–29.
6. Basioudis, I. G., Cuellar-fernández, B. & Garcia-lacalle, J. 2024. Implementing mandatory audit firm rotation: Effects on audit and non-audit fees: Implementación de la rotación obligatoria de firma de auditoría: Efectos en los honorarios de auditoría y honorarios por otros servicios distintos de auditoría. *Revista de Contabilidad-Spanish Accounting Review* 27(1): pp174–192.
7. Choi, A., Choi, S. & Yu, J. 2024. Does Internal Competition among Audit Partners Affect Audit Pricing Decisions? *Auditing: A Journal of Practice & Theory* 43(4): 1–24.
8. Chyz, J. A., Gal-Or, R. & Naiker, V. 2023. Separating Auditor-Provided Tax Planning and Tax Compliance Services: Audit Quality Implications. *AUDITING: A Journal of Practice & Theory* 42(2): pp101–131.
9. DeAngelo, L. E. 1981. Auditor independence, “low balling”, and disclosure regulation. *Journal of Accounting and Economics* 3(2): pp113–127.
10. Dechow, P. M., Sloan, R. G. & Sweeney, A. P. 1995. Detecting earnings management. *Accounting review* pp193–225.
11. Eke, C. K., Onuoha, U. R., Isichei, E. E. & Eze, I. R. 2024. Non-Audit Services (Nas) and Auditor Independence (Ai): Moderating Role of Regulatory Environment. *Journal of Lifestyle and SDG'S Review* 4(2): ppe02462–e02462.
12. Emerson, R. M. 1962. Power-dependence relations. *American sociological review* 31–41.
13. Fadila, E. F., Ramadhani, Y. A., Saputri, Y. I. & Manurung, H. 2023. The Influence of Audit Fee , Audit Tenure , and Auditor Competency on Audit Quality : A Systematic Review. *Jurnal Ilmiah Manajemen Kesatuan* 11(3): pp679–686.
14. Fernandez, S., Chan, K. R., Salim, K., Sitepu, W. R. B. & Simanjuntak, O. de pinto. 2024. The Influence of Audit Tenure, Audit Fee, Auditor Reputation, and Client Company Size on Audit Quality. *International Journal of Economic Social and Technology* 3(1): pp1–9.
15. Friedrich, C., Quick, R. & Schmidt, F. 2024. Auditor-provided non-audit services and perceived audit quality: Evidence from the cost of equity and debt capital. *International Journal of Auditing* 28(2): pp388–407.
16. Gaver, J. J., Utke, S., Gave, J. J. & Utke, S. 2019. Audit Quality and Specialist Tenure. *The Accounting Review* 94(3): pp113–147.
17. Goldman, A. & Barlev, B. 1974. The auditor-firm conflict of interests: Its implications for independence. *The Accounting Review* 49(4): pp707–718.
18. Herath, S. & Pradier, T. 2018. A literature review on auditor independence. *Business and Management Review* 9(3): pp404–409.
19. Herman, S. & Abbas, D. S. 2024. The Influence of Audit Tenure, Audit Quality, and The Influence of Financial Ratios on Audit Report Lag with Auditor Specialization as Moderator. *Prosiding Simposium Ilmiah Akuntans* 1(1): pp672–684.
20. Hidayati, R. & Djamil, N. 2024. Pengaruh Fee Audit, Audit Tenure, Rotasi Audit dan Reputasi Auditor Terhadap Kualitas Audit pada Perusahaan Manufaktur Sektor Aneka Industri yang Terdaftar di Indonesia Tahun 2020-2022: ries and audit quality. *Review of Accounting Studies* 23: pp1096–1136.
21. Hossain, S., Coulton, J. & Wang, J. J. 2023. Client Importance and Audit Quality at the Individual Audit Partner , Office, and Firm Levels. *Abacus* 59(2): pp650–696.
22. Hsieh, T. S., Kim, J. B., Wang, R. R. & Wang, Z. 2020. Seeing is believing? Executives’ facial

- trustworthiness, auditor tenure, and audit fees. *Journal of Accounting and Economics* 69(1): pp101260.
23. Jensen, M. C. & Meckling, W. H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3(4): pp305–360.
24. Ji, R., Li, L. Z., Li, L. L. & Monroe, G. S. 2024. Does client importance affect key audit matters reporting? New Zealand evidence. *Pacific Accounting Review* 36(3/4): pp277–296.
25. Kalelkar, R., Shi, Y. & Xu, H. 2024. Top management team incentive dispersion and audit fees. *Journal of Corporate Accounting and Finance* 35(1): pp178–191.
26. Lin, C. 2024. Are Client Importance and Auditor Expertise Associated with How Material Misstatement Corrections Are Disclosed? *AUDITING: A Journal of Practice & Theory* pp1–25.
27. Mahieux, L. 2024a. Auditors' Incentives and Audit Quality : Non-Audit Services versus Contingent Audit Fees Auditors' Incentives and Audit Quality : Non-Audit Services versus Contingent Audit. *European Accounting Review* 33(1): pp133–169.
28. Mahieux, L. 2024b. Auditors' Incentives and Audit Quality: Non-Audit Services versus Contingent Audit Fees. *European Accounting Review* 33(1): pp133–169.
29. Mäkelä, J. 2021. Security Elites in Egypt and Jordan after the Arab Spring: A Case Study on Securocracies' Role on National Security, Domestic Power Politics, Regional Order and Middle Eastern Alliance Making between 2011 and 2021.
30. Malakoute, O., Soumaya, O. & Noureddine, A. 2023. Factors Impacting Audit Quality: A Systematic Literature Review. *Revue Française d'Economie et de Gestion* 4(2023): pp177–209.
31. Masyitah, E., Kesuma, S. A. & Muda, I. 2023. Literature review on auditor independence. *International Journal of Social Service and Research* 03(03): 704–710.
32. Mwangi, J. 2024. Effect of Audit Quality on Earnings Management Practices. *American Journal of Accounting* 6(1): pp1–12.
33. Odum, A. N. & Kelechi, C. C. 2023. Effect of Auditor's independence on audit quality: evidence from Deposit Money Banks in Nigeria. *Journal of Global Accounting* 9(4): pp147–163.
34. Pappert, N. & Quick, R. 2024. The Effect of Pure Audit Firms, Nonprovision of Nonaudit Services to Audit Clients, and a Statutory Fee Schedule on Audit Quality Perceptions. *Journal of International Accounting Research* 23(2): pp149–172.
35. Pratiwi, N. M. W. D., Pramitari, I. G. A. A., Bagiada, I. M. & Sumiari, K. N. 2024. Audit Switching and Audit Tenure as Determinants of Audit Quality. *Journal of Economics, Finance And Management Studies* 07(04): pp1808–1811.
36. Putra, R. W. & Pratiwi, D. 2024. Enhancing Audit Quality: Investigating Impact of Audit Fees, Audit Tenure, and Audit Rotation. *Mizania: Jurnal Akuntansi dan Ekonomi* 4(1): pp499–514.
37. Raiszadeh, A., Mohseni, A. & Ghasemi, M. 2023. A review of studies related to audit quality by meta-analysis method. *Journal of Positive School Psychology* 6(12): pp2160–2180.
38. Ruiz-barbadillo, E., Martínez-conesa, I., Serrano-madrid, J. & Brown-Liburud, H. 2024. Audit Risk Management and Audit Effort in Small and Medium Audit Firms. *Revista de Contabilidad-Spanish Accounting Review* 27(2): pp212–228.
39. Shi, L., Teoh, S. H. & Zhou, J. 2023. Non-audit services in audit committee interlocked firms, financial reporting quality, and future performance. *Journal of Accounting, Auditing & Finance* 38(4): pp804–832.
40. Subedi, M. 2024. Principles based accounting standards, audit fees and going concern: evidence using advanced machine learning. *International Journal of Accounting and Information Management* 32(2): pp308–344.
41. Swaidan, Z. & Nica, M. 2002. The 1991 Gulf war and Jordan's economy. *Middle East* 6(2): pp71.
42. Tayem, F. A., Al-majali, R. M. & Al-habashnah, S. A. 2018. The Arab Spring Crisis and the Democratic Trend in Jordan. *J. Pol. & L* 11: 98.
43. Tuma, Z. 2021. Corporate Governance of Financial Stability. *Czech Journal of Economics and Finance (Finance a uver)* 71(4): pp268–281.
44. Wigglesworth, M. J., Shubita, M. & Combs, A. 2024. Audit committee characteristics as determinants of non-audit fees in UK FTSE 350 companies. *International Journal of Organizational Analysis* 32(9): pp1769–1787.
45. Yayangida, A. S., Ahmed, M. N., Nyor, T. & Yahaya, O. A. 2023. Audit Tenure and Financial Reporting Quality of Listed Non-Financial Services Firms in Nigeria: The Moderating Role of Audit Committee's Independence. *UMYU Journal of Accounting and Finance Research* 5(1): pp105–125.