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External Audit Quality and its Factors in Palestinian Municipalities: Moderating Effect of Supreme Audit Institutions

جودة التدقيق الخارجي وعواملها في البلديات الفلسطينية: الأثر المعدل لأجهزة الرقابة العليا

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Abstract:

Objectives: The study aims to investigate the relationship between external audit quality and its factors (i.e., auditor characteristics, audit firm attributes, and effectiveness of municipal internal control), as well as the moderation effect of supreme audit institutions between external audit quality and its selected factors, as perceived by accountants and internal auditors in Palestinian municipalities.

Methods: To achieve the objectives, questionnaires were distributed to 309 accountants and internal auditors in 155 Palestinian municipalities. They have firsthand knowledge of the financial statements under audit and are in constant communication with external auditors. Smart PLS 3 was used for statistical analysis.

Results: The results revealed that the direct relationships between audit quality, auditor characteristics, and effectiveness of municipal internal control were positive. These relationships were also positively moderated by supreme audit institutions. The relationship between audit quality and audit firm attributes was also positive, but it was negatively moderated by supreme audit institutions.

Conclusion: Audit firms, audit profession regulators, and municipality administrators can use these findings as useful guidelines in determining the factors of audit quality required in municipal audit engagements. This study encourages future research to examine other moderators, such as politics and public elections.

Keywords: *Audit quality; auditor characteristics; audit firm attributes; internal control; supreme audit institutions.*

الملخص:

الأهداف: تهدف الدراسة إلى دراسة العلاقة بين جودة التدقيق الخارجي وعواملها (مثل خصائص المدقق الخارجي، وسمات مؤسسة التدقيق، وفعالية الرقابة الداخلية في البلدية)، وتأثير أجهزة الرقابة العليا على العلاقة بين جودة التدقيق الخارجية وعواملها المختارة كما يراها المحاسبون والمدققون الداخليون في البلديات الفلسطينية.

المنهجية: لتحقيق هدف الدراسة تم توزيع استبيانات على 309 من محاسبين والمدققين داخليين في 155 بلدية فلسطينية، لديهم معرفة مباشرة بالبيانات المالية قيد التدقيق، وهم على اتصال مباشر ومستمر مع المدققين الخارجيين. وقد تم استخدام برنامج SmartPLS3 للتحليل الإحصائي في تحليل نتائج هذه الدراسة.

النتائج: كشفت نتائج الدراسة أن العلاقة بين جودة التدقيق وعواملها المتعلقة بخصائص المدقق وفعالية الرقابة الداخلية في البلدية إيجابية وتتأثر بشكل إيجابي بوجود أجهزة الرقابة العليا. كما أن العلاقة بين جودة التدقيق وسمات مؤسسة التدقيق إيجابية ولكنها تتأثر هذه العلاقة بشكل سلبي بوجود أجهزة الرقابة العليا.

الخلاصة: بناء على هذه النتائج، يمكن لمؤسسات التدقيق ومنظمي مهنة التدقيق وإدارة البلديات استخدام نتائج هذه الدراسة كارشادات توجيهية مفيدة في تحديد عوامل جودة التدقيق المطلوبة في عمليات التدقيق في البلديات. كما تشجع هذه الدراسة الأبحاث المستقبلية على فحص عوامل أخرى تؤثر على العلاقة بين جودة التدقيق في البلديات وعواملها مثل الظروف السياسية والانتخابات العامة.

الكلمات المفتاحية: *جودة التدقيق؛ خصائص المدقق؛ سمات مؤسسة التدقيق؛ الرقابة الداخلية؛ أجهزة الرقابة العليا.*

1 Introduction

Corruption and scandals in public-sector firms are primarily connected to the internal control system, which underpins accounting standards and auditing procedures. Governments can reduce public sector corruption through public sector accounting reform, by adopting the International Public Sector Accounting Standards (IPSAS) or the accrual accounting basis (Cuadrado-Ballesteros *et al*., 2019). A high audit quality, particularly by an independent external auditor, improves public trust in audited financial accounts produced by government accountants. Therefore, auditors are regarded as key players in providing trustworthy and credible financial statements (Bala, 2019; Ismail et al., 2019). This is especially true if the auditors provide high-quality audit services. However, there is difficulty in defining how to increase and quantify real audit quality, seeing that it is only evident either after an audit has been completed or during the audit process. This is because the auditors' activity during an audit engagement cannot be observed with the unassisted eye (Donatella *et al*., 2019). Challenges in evaluating audit reports or other direct measures of audit quality in municipalities have prompted researchers to use the perceptions of one or more stakeholder groups (accountants, internal auditors, users, and external auditors) as to what constitutes and determines audit quality (Takiah *et al*., 2010). Unlike previous research, this study analyzes external audit quality in the municipalities of Palestine, which recently has opened the doors for external audit, in addition to internal audit and audit by supreme audit institutions (SAIs). This sort of study in developing countries is still lacking (Ismail et al., 2019; Johnsen, 2019; Mattei et al., 2021). This study examines the relationships between audit quality (AQ) and auditor characteristics (ACH), audit firm attributes (AFA), and effectiveness of municipal internal control (EMIC) as a new determinant of audit quality. It also examines the moderating effect of SAIs between audit quality and its factors.

2 Literature Review

2.1 Audit in Palestinian Municipalities

World Bank (2001) reports that most countries, including Palestine, have established national audit institutions to oversee the financial statements of government agencies (Gustavson & Sundström, 2018). All types of auditing, either financial, performance, or compliance, are typically provided by these institutions (Carrington *et al*., 2019; Johnsen, 2019). The Palestinian National Authority (PNA) established such an institution in 1994, pursuant to Presidential Decree No. 22 of 1994 and followed by Act No. 17 of 1995 on the General Audit Institution and Act No. 15 of 2004 on the Financial and Administrative Control Bureau (FACB). Municipalities are subject to the FACB's jurisdiction according to Article 31(10) of the FACB Act. In addition to the FACB, the Ministry of Local Government (MOLG) established the General Department of Control and Guidance (GDCG) to perform audits as an SAI for municipalities. In Palestine, there are 155 municipalities as the main form of public sector organizations (PSOs). As in any country, these municipalities have a direct relationship with their citizens and provide basic needs (Rua & Alves, 2020), including education, transportation, and health services (Cohen *et al*., 2013). The services of municipalities are financed by their own revenues, which mainly come from taxes, services fees, and government contributions (Cohen *et al*., 2013).

2.2 Audit Quality

Experts have defined audit quality in different ways. For example, Dickins *et al*. (2018) describe audit quality as "the auditor's ability to discover and report misstatements, meet legal and professional requirements, and/or meet the needs of investors". DeAngelo (1981) defines audit quality as the likelihood that an auditor will detect a violation in the financial reporting system and record it in the audit report. The latter definition is widely used among researchers (Ismail *et al*., 2019). But audit quality researchers disagree on the definition of audit quality because of its nature as a socially constructed concept (Humphrey, 2008; Holm & Zaman, 2012). Therefore, earlier studies have used various proxies of audit quality in private– or public–sector organizations (DeFond and Zhang, 2014). These proxies relate to the input, output, or audit process components. However, they are not entirely relevant and valid measures of audit quality when used separately or collectively because they are indirect indicators of audit quality (Khurram *et al*., 2023) and have some limitations (Aobdia,

2016). Additionally, some proxies, such as restatement, discretionary accruals, and issuing going concern opinions, are not applicable to municipalities that still use cash basis accounting. The measures of audit quality may also differ by sector and country because laws and cultures, which may influence audit quality, greatly vary between countries (Tepalagul & Lin, 2015). Currently, only a few studies have considered the perception of accountants and internal auditors in municipalities in developing countries to measure audit quality and to define its determinants.

2.3 Prior Empirical Studies on Audit Quality

There is a wealth of research on audit quality, though much of it focuses on the private sector and developed countries and addresses one or more determinants of audit quality. A few have proposed an integrated framework that explains the root causes of audit quality issues (DeFond & Zhang, 2014; Knechel *et al*., 2013). Most studies have focused on the characteristics of auditors and audit firms. For example, Ismail *et al*. (2019) investigated the link between audit quality, auditor independence, audit competence, and work overload among 114 Malaysian public sector auditors. Kusumawati and Syamsuddin (2018) investigated the relationships between auditor characteristics, professional skepticism, and audit quality among auditors at the South Sulawesi branch of the Indonesian Audit Board. Ghebremichael (2018) gathered 54 audit quality attributes, categorizing them into technical (competence) audit quality, functional audit quality, and auditor independence. Lai and Pham (2020) identify five key determinants of audit quality: tangibles, dependability, responsiveness, assurance, and non-audit service.

This study differs from past studies as it examines audit quality and its determinants (i.e., auditor characteristics, audit firm attributes, and effectiveness of municipal internal control) using commonly used audit quality measures (Boon *et al*., 2008). The study also examines the moderation effect of SAIs on the relationships between audit quality and its determinants.

2.4 Auditor Characteristics

Scholars broadly agree that auditor characteristics are the most important determinants of audit quality (Christensen *et al*., 2016). From DeAngelo's (1981) definition of audit quality, Watson (2019) deduces five qualities of an auditor: competence, conscientiousness, independence, moral bravery, and reputation. Kusumawati and Syamsuddin (2018) divide auditor characteristics into five categories: ethics, commitment, independence, competence, and experience. Moreover, auditors must be honest and demonstrate high diplomatic skills, work ethics, objectivity, care and diligence, methodicalness, ability to find data and figures, insatiable curiosity, courage, ability to keep secrets, communication skills, and common sense (Kusumawati and Syamsuddin, 2018). Dickins *et al*. (2018) assert that the auditor's capacity is an input to the auditing process. Auditor competence has a significant and positive effect on audit quality (Ditkaew & Suttipun, 2023).

2.5 Audit Firm Attributes

The attributes of an audit firm, such as audit fee and audit firm size, influence the quality of audit (Saeed *et al*., 2024; Hussin et al., 2023). According to Elder *et al*. (2015), specialized audit firms are associated with higher audit quality. Alareeni (2019) concludes that most studies found a positive link between audit firm size and audit quality; however, Greenwood and Zhan (2019) did not find such a relationship in the public sector. Boon *et al*. (2008) show that a larger audit firm can establish a hierarchical organizational structure and rank its employees as partners and senior managers, resulting in improved audit quality.

2.6 Effectiveness of municipal internal control

Internal control is typically defined as the management's strategy for ensuring that operations are productive and successful, financial reporting is correct, and laws and regulations are complied with (Younas & Kassim., 2019). The Committee of Sponsoring Organization (COSO) framework identifies three goals for internal control: reliability of financial report, effectiveness and efficacy of business, and compliance with applicable laws (Romney & Steinbart, 2018; Younas & Kassim, 2019). This study considers internal audit as a proxy for the efficiency and effectiveness of an organization's operations and substitutes the accounting basis for financial report dependability; this has a direct impact on the input of the audit process, resulting in more accurate financial statements (DeFond and Zhang, 2014). According to auditing standards, the external

auditor is responsible for identifying any violations of laws and regulations that have a direct impact on the organization's financial statements and going concern ability (Alvin *et al*., 2017).

2.7 Supreme Audit Institutions (SAIs)

SAIs are national organizations in charge of conducting compliance, performance, or financial statement audits in government organizations in order to monitor the use of public funds and the effectiveness and integrity of governmental processes and policies (Hay & Cordery, 2018). They also evaluate the effectiveness and efficiency of public sector programs (Carrington *et al*., 2019). This type of audit is delivered by independent government agency for all PSOs (Johnsen, 2019), including the federal government (ministries), state governments, local governments, municipalities, state corporations, and any business owned or funded by the government, such as hospitals and universities (Dobrowolski, 2020; Johnsen, 2019). FACB, the Palestinian SAI, issued the Palestinian Government Auditing Standards (PGAS) as guidelines for external auditors in the PSOs (FACB, 2010). The MOLG also provides Terms of Reference for hiring external auditors in municipalities, in addition to other related laws and regulations that directly affect the audit process.

3 Method

This section discusses research questions, hypotheses, structural model, measurement of variables, methods, population and sample, data collection, data analysis, and questionnaire development.

3.1 Research Questions

Most prior studies on audit quality focus on the external audit of private sector organizations, particularly public companies. In contrast, there is a lack of studies on external audit quality in PSOs (Harris et al., 2019), particularly Palestinian municipalities, which have recently allowed to procure external audit services is provided by independent audit firms. Previously, those municipalities were only audited by SAIs, which performed governmental audit according to a limited audit plan. Therefore, SAIs can benefit from external auditors by using their audit reports as audit evidence in identifying any deficiencies. External auditors may also use SAIs' reports and refer to them in the audit process. This demonstrates a connection between SAIs and external auditors, which could affect the accuracy of the audit. Previous research has not looked into the effect of SAIs as a moderator on the relationship between external audit quality factors and external audit quality in municipalities. This study aims to fill a gap in the literature by examining audit quality and its factors in Palestinian municipalities from the perspective of their accountants and internal auditors by answering the following questions:

- What is the relationship between auditor characteristics and audit quality?
- What is the relationship between audit firm attributes and audit quality?
- What is the relationship between the effectiveness of municipal internal control and audit quality?
- Do SAIs moderate the relationship between audit quality and auditor characteristics, audit firm attributes, and effectiveness of municipal internal control?

3.2 Hypotheses

Based on the literature review, and to accomplish the research objectives, the following hypotheses were formulated:

H1: There is a positive relationship between auditor characteristics and audit quality.
H2: There is a positive relationship between audit firm attributes and audit quality.
H3: There is a positive relationship between the effectiveness of municipal internal control and audit quality.
H4a: SAIs moderate the relationship between auditor characteristics and audit quality.
H4b: SAIs moderate the relationship between audit firm attributes and audit quality.
H4c: SAIs moderate the relationship between the effectiveness of municipal internal controls and audit quality.

3.3 Structural Model

The structural model shows the independents variables and their dimensions and the dependent variable, in addition to the effect of SAIs on these relationships. The model also illustrates the hypotheses (Figure 1).

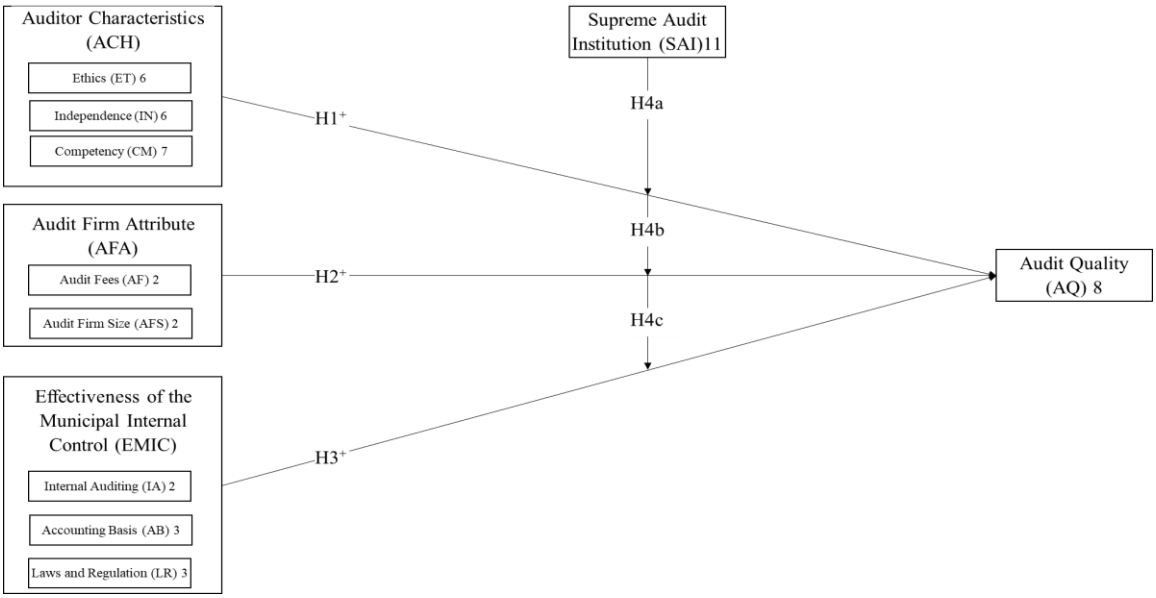

Figure 1: Hypothesized direct and moderation effects in the structural model.

3.4 Sample Selection

The study employed the quantitative survey design to examine the determinants of audit quality in Palestinian municipalities. Questionnaires were distributed to the entire population of 309 accountants and internal auditors in 155 Palestinian municipalities. According to Acharya et al. (2013), the optimum technique in any research is to analyze the problem in the entire population. Other researchers have also surveyed the whole population in their empirical investigation, e.g., Omar and Bakri (2019) and Raymond and Désiré (2019). Accordingly, the sample for this study was all key accountants and internal auditors who have adequate expertise in financial statement production and are in frequent and direct communication with the municipalities' external auditors.

3.5 Questionnaire Design

The questionnaire contained 39 questions relating to the research constructs. Auditor characteristics were measured as three variables: auditor ethics (6 items), independence (6 items), and competence (7 items). Audit firm attributes were categorized into audit firm size (2 items) and audit fees (2 items). Effectiveness of municipal internal included internal auditing (2 items), accounting basis (3 items), and laws and regulations (3 items). Finally, audit quality was measured using eight items. These items have been developed and adopted by prior studies to assess audit quality attributes, e.g., Butcher *et al*., (2013), Boon *et al*. (2008), and Carcello et al. (1992). The SAI construct was measured using 11 items developed by the author in a prior study (α = 0.777). The questionnaire also included demographic questions. Close-ended questions were used to obtain clear answers and encourage respondents to provide objective answers. The items were measured on a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5).

3.6 Data collection and analysis

Primary data were collected through an online survey because it is confidential by default and encourages honest responses. Al-Dhubaibi (2020) reported that this method has been used by other researchers, e.g., Kassem, (2018), because it promotes sincerity and confidentiality, enabling respondents to give more objective answers. It is widely used in audit research, especially during Covid-19 movement restrictions. According to Smith *et al*. (2005), the advantage of the survey method is to operationalize definitions of concepts that reflect the strength of attitudes, perceptions, views, and opinions. Confirmatory factor analysis and multiple linear regression are commonly used in previous studies to analyze the collected data. In this study, the data were analyzed using SmartPLS 3. According to Sarstedt *et al*. (2016), PLS provides the best estimation of composite models and estimates data with little or no bias. Hair Jr. *et al*. (2017) encourage social sciences researchers to use SmartPLS 3 because it is a newer, more powerful, and often more flexible statistical method.

4 Results and Discussion

The questionnaire was hosted on Google Form and sent to the official email addresses of all Palestinian municipalities. They were asked to forward the questionnaire to their accountants and internal auditors. Through personal communication with accountants and internal auditors by phone, email, WhatsApp groups, and other social media, a total of 186 questionnaires were collected, yielding a response rate of 60.2%. A response rate of 26% and 31% is acceptable for email surveys to financial statement preparers (Al-Dhubaibi, 2020). All questionnaires were included in the analysis.

4.1 Sample Profile

The surveyed demographic characteristics were job occupation, gender, age, education level, and work experience. More than one-third (38.7%) of the respondents were the head of the accounting department, 34.9% were between the ages of 41 and 50, 44.6% had more than 15 years of experience, 0.5% had lower than a bachelor's degree, and 71% were male. These show that the respondents were qualified to answer the questionnaires.

4.2 Construct Measurement

The descriptive analysis showed that there were no invalid or missing entries, indicating the respondents' cooperation and the accuracy of their answers. The findings showed that the standardized *z* scores for the research variables ranged from –2.708 to 1.604. Because the score did not exceed ±3.0, this means that no univariate outlier was present (Hair *et al*., 2006). Skewness and kurtosis values were used to evaluate univariate normality. Both should fall within the range of ±2 and ±7, respectively (HO, 2006). Univariate normality was established because skewness ranged between –0.925 and –0.340 and kurtosis between –1.215 and 0.555.

4.3 Measurement Model Assessment

To determine the relationships between observed and unobserved variables, the measurement model was used. The measurement model specifies how unobserved variables are evaluated in relation to observed variables (HO, 2006). The reliability and validity of model construct were also evaluated. Cronbach's alpha, construct reliability (CR), and average variance extracted (AVE) were used to measure reliability, while convergent and discriminant validity were used to measure validity.

Table 1 shows that the loadings of each item on its respective construct was > 0.6 (Hair, *et al*, 2006), ranging from 0.780 (SAI1) to 0.951 (IA1). SAI11 was deleted because of its low loading (0.347). According to Hair et al. (2006), the cut-off value of AVE for first– and second–order constructs is 0.5. Table 1 demonstrates that the AVE values, which reflect the overall amount of variance in the indicators accounted for by the latent construct, were above this cutoff, ranging from 0.717 (AQ) to 0.903 (IA). The CR values, which show how well the construct indicators predict the latent construct, ranged from 0.923 (AFA) to 0.966 (SAI). These were higher than Bagozzi and Yi's (1988) recommendation of 0.6 for all first– and second–order constructs. Cronbach's alpha, which indicate how error-free a measure is, ranged from 0.834 (AFA) to 0.969 (SAI), higher than the cut-off point of 0.7 (Nunnally & Bernstein, 1994) for all first and second order constructs.

Table 1: Convergent validity and Cronbach's alpha for the measurement model

Construct	Item / Code	Items Description	Factor Loading	(AVE)	(CR)	IR Cronbach Alpha
Ethics (ET)	ET1	The overall reputation of the audit firm.	0.882	0.790	0.957	0.947
	ET2	The due care of audit team members.	0.894			
	ET3	The audit firm has strict guidelines.	0.884			
	ET4	The audit firm has training courses in the client field.	0.902			
	ET5	The senior auditors supervise junior	0.882			
	ET6	The auditors maintain high ethical standards	0.888			
Independence (IN)	IN1	The audit firm has a skeptic's mindset.	0.867	0.781	0.955	0.944
	IN2	The audit fee of one client is less than 10% of the total revenue of the audit firm.	0.881			
	IN3	The audit firm and audit team members are independence, either in fact or in appearance.	0.887			
	IN4	The audit firm does not provide consultancy services.	0.908			
	IN5	A high audit staff turnover rate in the audit firm.	0.878			
	IN6	Members of the audit team are rotated off the audit on a regular basis.	0.884			
Competency (CM)	CM1	The audit team is well educated on the client field.	0.874	0.727	0.949	0.937
	CM2	The auditor has many clients in the same field.	0.861			
	CM3	The auditors have professional certifications such as the CPA.	0.842			
	CM4	The audit team have a good understanding of the client's operations.	0.861			
	CM5	The auditor uses the computers and statistical methodologies.	0.843			
	CM6	Each audit area has a strict time budget.	0.828			
	CM7	The total number of hours spent on the audit by the audit team.	0.857			
Audit Fees (AF)	AF1	The average amount of audit fees paid yearly	0.930	0.860	0.925	0.837
	AF2	The amount of audit fees is related to the efforts of the auditors.	0.924			
Audit Firm Size (AFS)	AFS1	The number of professionals in the audit team.	0.932	0.873	0.932	0.855
	AFS2	The legal form of the audit firm.	0.937			
Internal Auditing (IA)	IA1	The nature and type of the internal audit function.	0.951	0.903	0.949	0.893
	IA2	External auditors collaborate closely with internal auditors.	0.950			
Accounting Basis (AB)	AB1	The type of accounting basis.	0.883	0.814	0.929	0.885
	AB2	The change from cash basis to accrual basis enhances the	0.913			

		relevance and dependability of the financial statements.				
	AB3	Accrual basis compels auditors to expand their efforts in the auditing process.	0.910			
Laws and Regulation (LR)	LR1	The availability of proper laws and regulations improves audit quality.	0.918	0.834	0.938	0.900
	LR2	The client's devotion to the laws and regulations improves audit quality.	0.930			
	LR3	Investigation of client's adherence with applicable laws and regulation by the auditor.	0.892			
Supreme Audit Institutions (SAI)	SAI1	The existence of SAIs leads to choosing a good reputation auditor with a high professional ethics.	0.780	0.739	0.966	0.969
	SAI2	The existence of SAIs leads to choosing an independent auditor either in his mind and appearance.	0.804			
	SAI3	The existence of SAIs leads to choosing a high professional competence auditor.	0.907			
	SAI4	The existence of SAIs leads to choosing an audit firm whose audit fees are reasonable and fair.	0.867			
	SAI5	The existence of SAIs leads to choosing a large-size audit firm.	0.926			
	SAI6	The existence of SAIs leads to establishing an effective internal audit unit in the client.	0.902			
	SAI7	The existence of SAIs leads to adopting the accrual basis of accounting.	0.880			
	SAI8	The existence of SAIs leads to complying with the applicable laws and regulations.	0.825			
	SAI9	The existence of SAIs leads to influencing the audit firm to appoint a highly qualified audit team.	0.833			
	SAI10	The audit team relies on the SAIs audit.	0.864			
	~~SAI11~~	The SAIs audit contributes to and improves the overall quality of external audits.	0.347			
Audit Quality (AQ)	AQ1	Misstatements in the client's financial accounts are found and reported by audit quality.	0.836	0.717	0.953	0.944
	AQ2	The internal control system's material weaknesses are found and reported by audit quality.	0.837			
	AQ3	The audit company promises to finish the audit by the client-specified deadline.	0.817			
	AQ4	The audit committee is often informed by the audit team.	0.885			
	AQ5	The management of the client and the audit team contact	0.870			

		often.				
	AQ6	The client management is updated about developments in accounting by the auditor.	0.820			
	AQ7	The partner and manager of the audit engagement make many visits to the client.	0.847			
	AQ8	The auditor aids the client by coming up with practical proposals for improvements.	0.859			
2nd Order Constructs						
Auditor Characteristics (ACH)	ET	Ethics	0.945	0.875	0.954	0.928
	IN	Independence	0.939			
	CM	Competency	0.921			
Audit Firm Attribute (AFA)	AF	Audit Fees	0.926	0.858	0.923	0.834
	AFS	Audit Firm Size	0.926			
Effectiveness of the Municipal Internal Control (EMIC)	IA	Internal Auditing	0.906	0.843	0.942	0.907
	AB	Accounting Basis	0.933			
	LR	Laws and Regulation	0.915			

A construct's discriminant validity describes how it differs from other constructs, measured using correlation and square root of AVE. Sufficient discriminant validity is achieved when the square root of AVE for both constructs is greater than the correlation between the two constructs (Fornell and Larcker 1981; Hair, *et al*., 2006). Fornell-Larcker criterion was used to assess the discriminant validity of the measurement model (Table 2).

Table 2: Fornell-Larcker criterion

	ACH	**AFA**	**EMIC**	**SAI**	**AQ**
ACH	**0.935**				
AFA	0.704	**0.926**			
EMIC	0.755	0.762	**0.918**		
SAI	0.056	-0.012	0.062	**0.860**	
AQ	0.842	0.774	0.831	0.096	**0.847**

Note: The diagonals represent the square root of the AVE, while the other entries represent correlations.

The inter-correlations between the five hypothesized latent constructs in the measurement model ranged from –0.012 to 0.842 (Table 2), falling short of the cut-off of 0.85 (Kline, 2005). The analysis also showed that the value of the off-diagonal elements was lower than the value of the AVE square root. Thus, discriminant validity was established for each latent construct based on the Fornell-Larcker criterion (Fornell and Larcker 1981; Hair *et al*, 2014). The HTMT criterion was also used to evaluate discriminant validity (Table 3). All HTMT values between the five hypothesized latent constructs in the measurement model were < 0.90, ranging from 0.042 to 0.899. This means that each latent construct was distinct from one another (Henseler, *et al*., 2015). In summary, the modified measurement model was valid and reliable for evaluating the first– and second–order constructs and their related items.

Table 3: HTMT criterion

	ACH	**AFA**	**EMIC**	**SAI**	**AQ**
ACH					
AFA	0.800				
EMIC	0.823	0.876			
SAI	0.073	0.068	0.042		
AQ	0.899	0.872	0.898	0.067	

4.4 Descriptive Analysis

To account for all variables in this analysis, the descriptive function was computed using the covariance matrix method. The variables' composite scores were calculated by parcelling the original measurement item scores. Parcels are summation or averages of several individual indicators or items based on their factor loadings on the construct (Hair, *et al*., 2006). Table 4 displays the means and standard deviations of the constructs.

Table 4: Results of Descriptive Statistic for Variables

Constructs	Mean	Standard Deviation	Minimum	Maximum
ACH	3.560	0.872	1.365	4.746
AFA	3.710	0.884	1.25	4.75
EMIC	3.635	0.856	1.222	4.889
SAI	3.299	1.184	1	4.9
AQ	3.576	0.965	1.125	4.75

The findings showed that the perception of the respondents towards these variables was generally favorable and above average, as the means were above the mid-point (2.5) of the scale. These suggest that the respondents generally believe that ACH, AFA, and EMIC can determine AQ in municipalities. Most respondents also believe that SAI is related with AQ, ACH, AFA, and EMIC.

4.5 Examining Direct Effect Hypotheses - Structural Model

The overall model fit was first evaluated, followed by the size, direction, and significance of the hypothesized parameter estimates, as shown by the one-headed arrows in the path diagrams (Hair, *et al*., 2006). The final stage was validating the structural model, which was based on the proposed relationship between the identified and examined variables. The structural models were estimated using the PLS technique and bootstrapping with 1,000 replications to test the research hypotheses. The direct effects of ACH, AFA and EMIC on AQ were examined (H1, H2, and H3). Figure 2 shows the results.

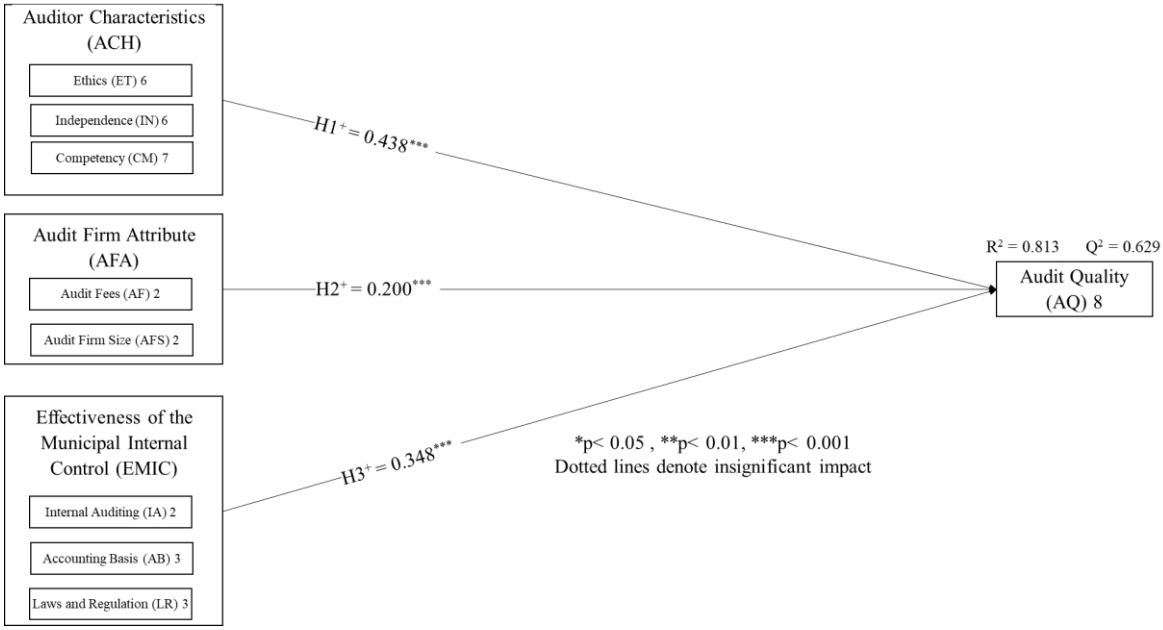

Figure 2: Results of Direct Effect Hypotheses in Structural Model

The R^2 for AQ was 0.813, which means that 81.3% of variance in AQ was explained by ACH, AFA, and EMIC. This R^2 value is high and exceeds the cut-off of 0.19 recommended by Chin (1998). The Q^2 (predictive relevance) for AQ was 0.629, far greater than zero (Chin, 2010). In sum, the model exhibits acceptable fit and high predictive relevance. The model's goodness of fit (GOF) was 0.763, which was high, following the suggestion of Wetzels et al. (2009).

$$GOF = \sqrt{0.813 * 0.717} = 0.763$$

The current structural model's standardized root mean square residual (SRMR) value with 95% confidence interval was 0.043. This indicates good fit as the threshold is < 0.08 (Hair, *et al*., 2014). The RMS_{theta} value was 0.123, which is within the acceptable range of between 0.1 and 0.14, as recommended by Henseler *et al*. (2014). The estimated coefficient parameters were then used to test the hypothesized direct effects of the variables addressed in Table 5.

Table 5: Hypothesized Direct Effects of the Constructs in the Structural Model

Path	Std Beta	Std Deviation	t-value	p-value	95% LL-CI	95% UL-CI	f^2	VIF	Hypothesis Result
ACH→AQ	0.438***	0.040	11.109	0.000	0.358	0.517	0.401	2.563	H1+: Supported
AFA→AQ	0.200***	0.049	4.077	0.000	0.102	0.298	0.082	2.623	H2+: Supported
EMIC→AQ	0.348***	0.048	7.106	0.000	0.242	0.437	0.210	3.083	H3+: Supported

***p< 0.05, **p< 0.01, ***p< 0.001**

Table 5 shows that all paths were statistically significant. Thus, H1, H2, and H3 were supported. ACH had a significant positive correlation with AQ, $B = 0.438$, $p < 0.001$. It is therefore recommended that municipalities implement appropriate procedures to hire audit firms based on the characteristics of the audit staff. They should also require specific attributes of the audit team by assessing the audit team's historical records. AFA had a small positive correlation with AQ, $B = 0.200$, $p < 0.0001$. Municipalities should therefore implement certain procedures to hire audit firms based on their reputation, experience, auditor sufficiency, and reasonable audit fees. Finally, EMIC had a moderate positive correlation with AQ, $B = 0.348$, $p < 0.001$. Thus, it is recommended that municipalities implement and maintain effective internal controls, and these controls must be examined by external auditors. The results revealed that the commitment, ethics, independence, and competence of external auditors, either individuals in the audit team or the audit firm, have improved audit quality in municipalities that implement effective internal controls. These results are consistent with previous studies (Haeridistia & Agustin, 2019; Christensen *et al*., 2016; Alareeni, 2019; Yebba & Elder, 2019; Elder *et al*., 2015).

4.6 Moderation Effect Hypotheses

The study also examines the moderating effect of SAIs between AQ and ACH (H4a), AFA (H4b), and EMIC (H4c). A moderation effect exists when the nature of relationship between the independent and dependent variables changes as the value of the moderator changes. This effect is determined by introducing an interaction effect in the model and examining its significance. Figure 3 shows the structural model with the interaction terms.

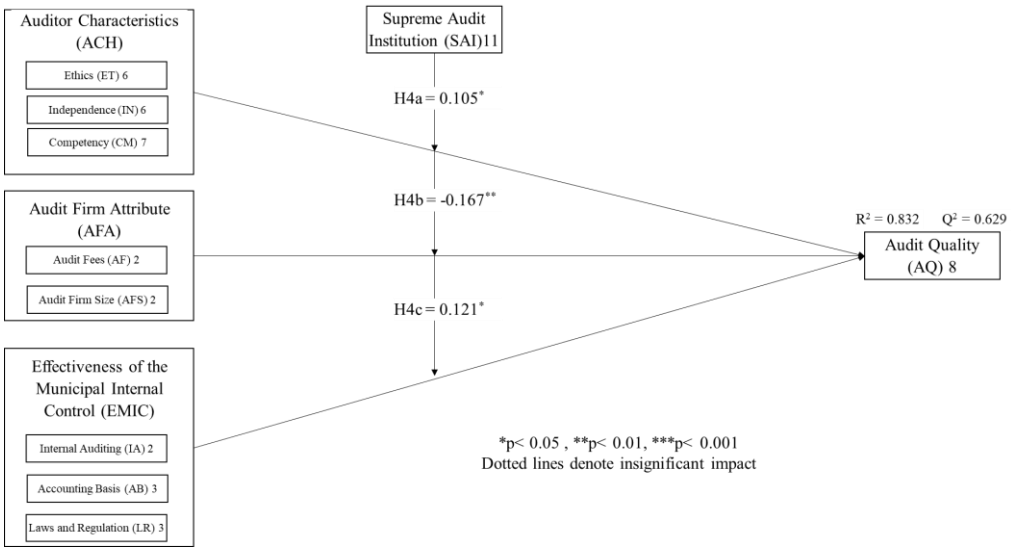

Figure 3: Results of moderation effect hypotheses in the structural model

The R^2 value for AQ was 0.832, which is greater than Chin's (1998) cut-off value of 0.19. The Q^2 for AQ was 0.629, which is far greater than zero, indicating the model's predictive relevance (Chin, 2010). The model's

GOF was 0.772, which was relatively large. The SRMR was 0.048, less than the threshold of 0.08. The RMS_{theta} value was 0.112, which is within the acceptable range of 0.1–0.14.

Table 6 shows the moderating effects of SAI. Path coefficients were additionally used to assess the impact of each interaction term on the dependent variable. The table shows that all paths were statistically significant, supporting H4a, H4b, and H4c. The positive impact of ACH and the EMIC on AQ was stronger at higher levels of SAI, while the SAI negatively moderated the relationship between AFA and AQ.

Table 6: Examining Results of Hypothesized Moderation Effects of SAI

Path	Std Beta	Std Deviation	t-value	p-value	95% LL-CI	95% UL-CI	f^2	VIF	Hypothesis Result
ACH*SAI→ AQ	.105*	.049	2.103	.034	-.009	.192	.029	1.874	H4a: Supported
AFA*SAI→ AQ	-.167**	.060	2.735	.006	-.254	-.004	.065	2.256	H4b: Supported
EMIC*SAI →AQ	.121*	.058	2.057	.038	-.015	.217	.029	2.500	H4c: Supported

***p< 0.05, **p< 0.01, ***p< 0.001**

SAIs typically issue audit standards for auditors of PSOs. They also demand municipalities to hire high-quality auditors that, in turn, can provide high-audit quality and to be more compliant with the terms of reference of hiring external auditors, which do not consider audit firm size. SAIs monitor the bidding procedures of external auditor procurement, which lead to the lowest audit fees, which consequently may affect the auditors' efforts and decrease audit quality. However, the establishment of SAIs strengthens internal control and its drivers, hence improving audit quality in municipalities. These results are consistent with the authors' previous study, which examined the annual audit reports of Palestinian SAIs in 2010–2020 (Rabaiah *et al.*, 2022).

5 Conclusion and Recommendations

This study has developed a new comprehensive conceptual framework to measure external audit quality and its factors in municipalities, while accounting for SAIs' auditing. This model considers the perspectives of municipal accountants and internal auditors to assess the level of audit quality performed by external auditors. The study found that ACH, AFA, and EMIC had direct and significant impacts on AQ in the municipalities. SAIs moderated negatively the relationship between AFA and AQ but positively between AQ and ACH and EMIC. The study provides several contributions to both literature and practice. First, the findings are consistent with previous studies, and the perspectives of Palestinian municipal accountants and internal auditors are added to the expanding field of audit quality research. Second, the findings enable audit firms to better understand the audit quality attributes valued by municipalities accountants and internal auditors who participate in the audit procurement process. Accordingly, these firms can differentiate their promotional and service strategies to correspond with those attributes, as well as to improve their own audit quality in municipal audit engagements so as to enhance the satisfaction of their clients. The findings may be useful in determining high-quality audit requirements in municipalities for policymakers in the MOLG as municipal regulators, as well as the Palestinian Association of Certified Public Accountants and the Auditing Profession Council as audit profession regulators.

Based on the results, the study provides the following policy recommendations:

- The Palestinian Association of Certified Public Accountants and the Palestinian Audit Profession Council are recommended to add IPSAS and related education materials to the Profession Exam requirements. They should also require specific auditing training courses on those who want to provide audit services to municipalities.
- MOLG should amend the terms of reference (ToR) for engaging external auditors for local government units to reflect the audit quality variables described in this study, especially auditor characteristics.
- Municipal administration should obtain a technical offer before making a financial offer for new auditors. This allows the municipality to select external auditors who are competent and capable of performing high-quality audits.

- Audit firms should assess their policies and procedures to fulfill the audit quality standards observed by accountants and internal auditors participating in bidding evaluations.
- Legislative parties should evaluate municipal laws and regulations to align with current accounting standards and audit processes, including the accrual accounting basis.
- It is suggested that municipal administration hire and train competent internal auditors.
- SAIs should obtain audited financial statements and external audit reports to reduce their workload.
- Researchers are advised to include additional moderating variables, such as political issues, as well as using other stakeholder groups' perceptions of audit quality, such as financial statements users and audit committee members.

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