Factors affecting the quality of Auditing: The Case of Jordanian Commercial Banks

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Abstract

This paper focuses on identifying the most important factors affecting audit quality in Jordanian Commercial Banks (JCBs). The perceptions of JCBs' internal and external auditor's in addition to financial managers have been investigated. In general it was found that the respondents believe that audit quality in the Jordanian banking sector ranges from satisfactory to very good. The results indicate a positive and significant correlation between audit quality and audit efficiency, the reputation of auditing office, auditing fees, the size of audit firm, and the proficiency of auditor. The results of this study make a contribution to existing literature in the area of factors affecting audit quality in eastern developing countries such as Jordan. In addition, this research adds further evidence to the value of studying auditing efficiency, the reputation of audit firm, auditing fees, the size of auditing office, and the proficiency of auditor on the quality of auditing.

Keywords: Auditing, Quality Factors, Banks

1. Introduction

Audit is playing an important role in developing and enhancing the global economy and business firms. Auditors express an opinion on the fairness of financial statements. This is important for the users of financial statements to gain assurance that the data are being reported, properly measured, and fairly presented. Auditors must raise their skills in order to increase the probability to rely more on the auditor's report and audited financial statements which are more relevant, unbiased and accurate for the decision makers. Audit quality is not just affected by auditor qualification, the company's internal control system might be another factor that affects audit quality, and the size of the audit firm might also matter. However some regulators and small audit firms claimed that audit firm size does not affect audit quality and therefore should be irrelevant in the selection of an auditor.

More recently the Global Financial Crisis has seen policy makers once again focus attention on the importance of an effective audit function as a key component in effective capital markets and attempt to identify key drivers of audit quality. For example, in the US the Advisory Committee on the Auditing Profession (2008) was established to provide advice to the US Treasury Department on the auditing profession. Similarly, in the UK the Financial Reporting Council released The Audit Quality Framework (2008), also in Australia; The Treasury released Audit Quality in Australia— A Strategic Review (2010). These investigations and regulatory changes make it clear that there has been considerable dissatisfaction with the effectiveness of corporate governance, the quality of the audit process and the roles of auditors and auditing. In response, regulators and the accounting profession have taken a number of policy measures to improve audit quality in both fact and appearance. Recent examples include the SEC's proposed ban on audit firms undertaking non-audit services (NAS) in 2000 (SEC 2000) and the rapid adoption of SOX following Enron's collapse (Francis 2004).

However, these policy decisions have been made despite the fact that the empirical evidence regarding factors that can enhance or impair audit quality is inconclusive and uncertain. Accordingly, this study provides empirical evidence on the factors that are perceived to affect audit quality, specifically the relative importance of audit-team and audit-firm attributes in affecting audit quality as perceived by users of audit services. However, research into perceptions of audit quality is important because it determines the credibility of the audit report (Shockley 1981), and that have the potential to erode public confidence in the integrity of the financial reporting system (Pany and Reckers 1988). Consequently, gaining an understanding of factors that affect perceptions of audit quality is important because it can help regulators and the accounting profession to formulate policy based on empirical evidence rather than on a priori assumptions (Schelluch and Thorpe 1995).

This evidence is also useful in ensuring that policies and practices support confidence and credibility in the audit function by encompassing attributes found to be relatively more important in perceptions of audit quality. Investigating audit quality in Jordanian banking sector is significant based on the importance of reaching a high quality auditing process in the Jordanian companies. One of the significant sectors in Jordan is the banking sector, this sector is vital to the Jordanian economy. Moreover, the Jordanian banks have an effective role in the transmission of monetary policy. Consequently, one can argue that auditors are vitally important to the banking sector. In this current study the quality issue is investigated for the following reasons:

- 1. As competition in commercial banking sector is high, so audit quality has become an important issue for managers who look to improve the level of their bank.
- 2. Investigating the audit quality is expected to help managers to improve the level of audit quality provided by the internal auditing and to find the most appropriate conditions that lead to high levels of audit quality.
- 3. Practical work and experience in the audit quality of banks sector can help in connecting the theoretical ideas with the real practice.

The study aims to examine some factors affecting auditing quality in the Jordanian banks from internal and external auditor's perspective. Consequently, objectives of the current study can be summarized as follows]

- 1. Discuss the different measures of audit quality.
- 2. Investigate factors that may affect the audit quality in the Jordanian commercial banks.
- 3. Determine the most important factors affecting audit quality from the perspectives of internal and external auditors of the Jordanian commercial banks.

2. Literature Review

There is a vast body of literature relating to audit quality and its measurement. Despite the extent of that literature, no single generally accepted definition or generally accepted measure of audit quality has emerged. Much of the audit quality literature derives from DeAngelo's definition. He defines audit quality as "the joint probability that an auditor will both discover and report a breach in the client's accounting system. The discovery of a misstatement measures quality in terms of auditor's knowledge and ability, while reporting the misstatement depends on the auditor's incentives to disclose" DeAngelo, [1981]. This definition is appropriate for external financial statement audits; it can be expanded to include other types of auditors (e.g., internal auditors) and audits (e.g., compliance and operational audits).

Despite the lack of a comprehensive definition of audit quality covering all types of audits and auditors, it is reasonable to assume this term incorporates compliance with relevant audit procedures and standards. Audit Quality as an agency relationship arises when one or more principals (e.g. an owner) engage another person as their agent (or steward) to perform a service on their behalf. Performance of this service results in the delegation of some decision-making authority to the agent. This delegation of responsibility by the principal and the resulting division of labor are helpful in promoting an efficient and productive economy.

However, such delegation also means that the principal needs to place trust in an agent to act in the principal's best interests. What happens when concerns arise over the motives of agents and cause principals to question the trust they place in them? Yamani, [1991] concluded that the auditor's independency and auditing quality are considered important factors that affect auditor selection, and reflect the confidence level in the financial reports.

However, the researchers insisted that the procedures associated with auditor's hiring are considered important factors that affect auditor's independency and auditing quality. Hameed, [1995] found that the most important factors that affect auditing quality are auditor's experience, honesty, and the knowledge in accounting and auditing standards. Alqam and Alrajabi, [1997] in their research in public Jordanian companies found that auditor rotation is affected by three categories; firm specific factors such as management replacement, auditing office specific factors such as auditing quality, and factors related to international auditing standards and auditing ethics. Also, Abbott and Parker, [1999] investigated auditor changes found that the presence of active and independent audit committees is associated with increases in audit quality at the time of auditor changes. Dunn, et al., [2000] found a positive association between industry-specialized audit firms and analysts' rankings of disclosure quality in unregulated industries, but no relation in regulated industries. Abbott, et al., [2001] argued that independent and active audit committees demand a higher level of audit quality due to concerns about monetary or reputation losses arising from financial misstatements.

Wong, [2001] found that the use of computer assisted audit techniques instead of traditional data mining contributes to the success of auditing task. Brown, et al., [2006] found that auditor independence does not, by itself, materially degrade the quality of financial disclosures. Khasharmeh, [2002] found that the auditor must be selected objectively and not based on the interrelationships between board of directors and the auditor. Prior researches documented a positive association between audit quality and some factors such as internal control. Other studies have employed more direct measures, such as the outcomes of quality control, firm size, audit fees, auditor independence, auditor reputation, industry specialization, auditor qualifications and proficiency. This research considers the following audit quality factors:

2.1 Internal control

Internal control is defined as "a process, affected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives" INTOSAI International Organization of Supreme Audit Institutions, [1998]. Audit quality is obtained by a process of identifying and administering the activities needed to achieve the quality objectives of an SAI. Since an entity's internal control is under the purview of its audit committee Krishnan, [2005], the relation between audit committee quality and internal control weaknesses is a subject to be investigated. The audit committee not only plays an important monitoring role to assure the quality of financial reporting and corporate accountability, Carcello and Neal, [2000], but also serves as an important governance mechanism, because the potential litigation risk and reputation impairment faced by audit committee members ensure that these audit committee members discharge their responsibilities effectively. We thus expect that firms with high-quality audit committees are less likely to have internal control weaknesses than firms with low-quality audit committees.

2.2 Firm size

The difficulty in measuring audit quality has led many researchers to use audit firm size as a surrogate. Large audit firms are assumed to perform more powerful tests. As a consequence, larger audit firms are more likely to be associated with more precise information than are smaller audit firms, all else being equal (Beatty, 1989; Titman and Trueman, 1986). Analytical research has suggested that audit firm size and audit quality are positively related.

For example, DeAngeio, [1981] proposes that larger firms provide higher-quality audits because larger audit firms have fewer incentives to compromise their standards to ensure retention of clients in comparison with smaller firms. Similarly, Dopuch and Simunic, [1982] argue that audit quality is a function of the number and extent of audit procedures performed by the auditor and that larger firms have more resources with which to conduct tests., Moore and Scott, [1989] demonstrate analytically that audit firm size and the extent of audit work are positively related.

Further, if audit firm size and audit quality are positively related, we would expect to find larger differences between forecasted and reported incomes for companies audited by large auditors than for companies audited by small auditors, after controlling for client characteristics such as risk.

Numerous studies have examined the relationship between audit quality and auditor size e.g., Colbert and O'Keefe, [1995]; DeAngelo, [1981]; Deis and Giroux, [1992]; and Francis and Simon, [1987]. Assessment of this relationship is important for several reasons. First, if auditor size is a useful surrogate for auditor quality, the public has available a readily observable quality indicator. This can be quite helpful given that the underlying quality of audits and other accounting services are difficult to determine, even after they have been performed. Second, the existence of this relationship could help shape public policy debates. For example, documentation of a positive relationship between auditor quality and auditor size could help justify different peer review or continuing professional education requirements for CPA firms of different sizes. Additionally, the structure of liability insurance premiums could also be affected if audit quality is related to firm size.

Additionally, many prior studies of the quality-size relationship have examined relatively large CPA firms by using the Big Eight-non-Big Eight dichotomy within the setting of publicly held company audits e.g., Palmrose [1988]. These studies do not assess if the quality-size relationship holds at the level of small CPA firms. Although the studies by Deis and Giroux, [1992, 1996] and Colbert and O'Keefe, [1995] used samples of firms that are predominantly local or regional, each of those studies used data from only a single state. Previous research links auditor independence, a key element of audit quality, to auditor size and consequently suggests a positive association between audit quality and auditor size. Moreover, by using the dichotomy approach (Big four/non-Big four); numerous studies in many countries have found that the largest audit firms with international reputations earn fee premiums due to their perceived higher quality Colbert and Murray, [1998]; Krishnan and Schauer, [2000].

Given the difficulties in observing audit quality, the obvious reason for this relatively substantial interest in the issue is that if auditor size correlates sufficiently with auditor quality, it provides the public with an observable surrogate for auditor quality. On the other hand, if audit clients perceive that quality is related to auditor size, auditor size per se should affect the performance of the firms in the market. In addition to auditor remuneration, firm size might have an effect on the firm cost structure, for example through liability insurance premiums Colbert and Murray, [1998]. Thus, it is not surprising that the debate about the relationship between audit firm size and auditor quality still goes on: While many researchers argue that audit quality relates to audit firm size, regulators have typically contended that quality is independent of the size of an auditor e.g. Krishnan and Schauer, [2000], p. 9. This debate over the relationship between auditor size and quality, however, has concentrated mainly on the claim that the largest auditing firms with international reputations are above average quality suppliers of audits, whereas little is said about product differentiation among other audit firms.

Krishnan and Schauer, [2000] examined the association between auditor size and audit quality for a sample of not-for-profit entities. Their audit quality measure was based on the entity's compliance with GAAP reporting requirements. Auditors were divided into three classes: Big Six, large non-Big Six and small non-Big Six. They found that compliance increased as one moved from the small non-Big Six to large non-Big Six and from the large non-Big Six to Big Six. They also tested the auditor size—audit quality relation with a more continuous measure of audit firm size: the number of professionals employed by audit firm. This test further confirmed their finding.

2.3 Auditor's fees

Audit fees mean all charges that the companies pay to the external auditors against the audit services and non-audit services, e.g. management advisory and consultants. Auditing fees consist mainly of the wages and benefits of office and field personnel, travel costs, and other costs necessary to the audit and related support activities.

The fees equal the estimated cost of staff time and the actual cost of travel for those activities, plus margin of profit. In their discussion of Kinney and Libby, [2002] suggested that the threat to auditor independence could be as strong when the audit fee is large. Several studies that have empirically examined the relationship between audit quality and audit fee; Francis and Simon, [1987] assume that audit services are quality-differentiated and that in a competitive market, quality differences are reflected in fees. However, since audit fees have a number of determinants, they are a noisy proxy for quality. A previous study which examines whether, in an Australian setting, the existence of an audit committee, audit committee characteristics and the use of internal audit are associated with a higher level of audit fees concludes that a higher audit fee implies higher audit quality Francis, [2004]. Several authors argued that managers and entrepreneurs are willing to pay higher audit fees to receive what are perceived to be higher quality audits.

For example, Beatty, [1993] reports greater compensation to Big 6 auditors than to non-Big 6 auditors in the IPO market. Numerous other audit fee studies, including Francis and Simon, [1987], and Craswell, Francis, and Taylor, [1995] documented a relationship between auditor prestige or reputation and audit fees. Craswell, Francis, and Taylor not only report an audit fee premium for the Big 8 name, but also an audit fee premium for audit specialization within the Big 8. Chaney, Jeter, and Shivakumar, [2002], were unable to find a significant Big 5 audit premium. Although there is some evidence that audit fees do not contain this premium, it appears that economic agents are willing to bear some increase in cost for what are perceived to be higher quality audits. Beatty, [1989] suggested that the auditors performed a certification role for IPOs by, in effect, staking their reputation on the quality of the audit.

Firms can buy this certification by selecting an auditor with high reputational capital who will charge a higher audit fee. Results of Sharma, [2003] and Goodwin, and Kent, [2006] were indicating that higher audit fees are associated with more frequent audit committee meetings. Committee independence and accounting and finance expertise are not significantly associated with audit fees. Simon, and Francis, [1988] suggested that several studies of the U.S. market for audit services have found evidence of a large audit-firm fee premium. This premium has been interpreted as an indication that large audit firms (typically defined as the "Big five," now the "Big four"), considered as a group, receive higher fees than non-Big firms and thus are perceived to provide higher quality audit services. A common interpretation has been that there is a strong relationship between audit firm size and audit quality. That is, the observed big fee premium has been interpreted as evidence that this group of large auditors, as a whole, is perceived to provide higher quality audits.

2.4 Auditor's independence

An independent audit committee enhances the independence of external auditor, and ensures that auditor is free from management influence. The committee can conduct informal and private meetings without the presence of the company's management to encourage the external auditor to be transparent on material issues at an early stage. The best known definition of independency in academic literature is De Angelo, [1981], P. 186): The conditional probability of reporting a discovered breach... Others include: an attitude/state of mind Schuetze, [1994]; a function of character with the integrity and trustworthiness being key Magill and Previts, [1991]. The U.K.s guide to professional ethics refers to integrity, objectivity, and independence. No definition is offered of integrity and independence, but objectivity is defined as the state of mind which has regard to all considerations relevant to the task in hand but no other. It is sometimes described as independence of mind CAJEC, [1966].

Ponemon and Gabhart, [1990] used Kohlberg stage model of moral development and ethical cognition to examine an auditor's implicit reasoning in the resolution of an independence conflict. This well-validated model distinguishes three levels of ethical cognition: Pre-conventional, Conventional, and Post-conventional. They found that a systematic relationship exists between auditors measured ethical cognition and their resolution of an independence conflict in a hypothetical situation. They also found that independence judgments are significantly influenced by penalty related factors and are less sensitive to affiliation factors (i.e., living up to expectations). Windsor and Ashkanasy, [1995] extended Ponemon and Gabharts, [1990] study by including economic and personal belief variables, the moral atmosphere of the audit firm, is also being explored by researchers, although no clear results have yet emerged Ashkanasy and Windsor, [1997].

Geiger and Raghunandan, [2002] suggested that auditors with longer tenure are more likely to be independent, and are consistent with Myers et al., [2003] in that longer auditor tenure is associated with higher quality of reported earnings. Craswell et al., [1995]; Krishnan, [2003]. This implies that auditors with higher audit quality (i.e., auditors independent) are more likely to resist client management pressures than auditors with lower audit quality.

This study above examines auditor independence in auditor-client negotiation over financial reporting issues, and whether high quality auditors are more likely than low quality auditors to resist client management pressures in auditor-client negotiation over financial reporting issues. Wright and Wright, [1997] argued that auditor independence is at the heart of the integrity of the audit process. When auditors and clients negotiate issues about financial reporting, maintaining the integrity of the independent audit function is mandatory for auditors and required by the standards of the accounting profession. Recently, financial scandals at companies such as Enron and WorldCom have eroded public confidence in the independence of the accounting profession and the quality of audit services.

2.5 Auditor's reputation

This research investigates this factor through discussing the impact of the Enron and Andersen audit failure on auditor reputation. An auditor's reputation is directly related to the perceived and actual levels of quality reflected by the auditor's report. Choi and Jeter, [1992] demonstrated a lessened stock market response to earnings reports when a qualified opinion is issued. If auditor quality is jeopardized, the audit report provides a lower level of assurance to the users of financial statements that the financial statements reflect the firm's business reality and a higher probability that its earnings and book values have been overstated without being flagged by its auditor. Consequently, they examined Arthur Andersen's clients' stock market impact surrounding dates on which Andersen's audit procedures and independence were under severe scrutiny as well as Andersen's clients' auditor switch dates. A high-quality job greatly increases the probability that audit results will be relied on and recommended improvements will be seriously considered and implemented.

The organization's reputation for consistent high-quality work helps ensure that decision makers will more readily and more assuredly accept findings and implement recommendations. Reputations are built over time by producing consistent, high-quality work. A hard-earned reputation is on the line with each product. To maintain and continue to build excellence requires total commitment on the part of every member of the team and the organization. Challenges to findings and recommendations can be expected. As an organization increasingly deals with tougher and more sensitive issues, challenges to its work increase. An Audit Quality Control System: Essential Elements Aug. [1993] GAO's Technical Guidance Publications Gray Books /PO-4.1.6. Prior research has shown that an auditor's reputation for quality is valuable. External stakeholders such as investors and regulators use audited financial statement information in their decision making. Because investors are unable to directly observe audit quality and determine whether the reported information is an unbiased indicator of firms' financial performance, auditor reputation serves as an important proxy for the quality and accuracy of client financial statements [DeAngelo1981].

2.6 Industry specialization

The relation between audit quality and auditor industry expertise or specialization has been extensively examined in prior research. Maletta and Wright, [1996] observed that there are fundamental differences in characteristics of errors and methods of error detection across industries and thus, auditors who have industry specific expertise are better equipped to detect errors or abnormalities than those auditors without such expertise. For example, Wright and Wright, [1997] found that significant experience in the retailing industry contributes to increased detection of errors of clients in the retail industry. Solomon et al., [1999] found that auditors who are specialists exhibit greater knowledge of non-error frequency relative to the non-specialists.

The significance of this finding is that clients tend to propose non-error explanations for fluctuations in ratios and therefore, accurate knowledge of non-error frequency is vital in detecting misstatements in financial statements. Prior research also documents other benefits of auditor's industry specialization. Carcello and Nagy, [2004] found that auditor's industry expertise mitigates financial fraud. Krishnan, [2003] documented that for non-financial firms, discretionary accruals, a commonly used proxy for earnings management is lower for clients of specialist auditors relative to the clients of non-specialist auditors.

Krishnan, [2005] found that for a sample of clients of Big 5 auditors asymmetric timeliness of earnings, a fundamental characteristic of financial reporting is greater for clients of specialist auditors compared to the clients of non-specialist auditors.

While the above evidence indicates that the ability to detect material misstatements in financial statements is associated with auditor's industry specialization, there is also evidence that specialist auditors attempt to protect their reputation capital through increased compliance with generally accepted auditing standards relative to non-specialist auditors O'Keefe et al., [1994]. In summary, these findings are consistent with the notion that auditor industry expertise contributes to greater audit quality. Neal, Riley, and Richard, [2004] suggested that the specialization in the auditing industry changes in the audit market in recent years suggest that industry specialization is an important strategic goal of the largest accounting firms in the U.S. and is recognized by accountants as an important issue facing the profession.

As a result, the possible relation between audit quality and auditor industry specialization has been of increased interest to academics. Several studies have attempted to document the relation between industry specialization and audit quality, but have provided mixed results, possibly due to a lack of consensus as to how industry specialization should be measured. In response to these findings, a framework is presented to assist researchers in selecting the most appropriate auditor industry specialization metric to apply in a given setting. At the same time, widely publicized accounting problems at some of the world's largest companies have placed an increased emphasis on improving audit quality. Does industry specialization lead to better auditor decisions? Low, [2004] found that auditor's knowledge of client's industry improves audit risk assessments, and facilitates the refinement of the elements of audit knowledge, which in turn is expected to help auditors anticipate potential misstatements.

This skill is critical given that there are significant differences in the incidence, magnitude, income effect, cause, and method of detection of financial statement errors across a broad base of industries. The issue of industry specialization has become increasingly relevant to the auditing profession as firms organize their practices along industry lines rather than traditional service lines AICPA [1998]. Furthermore, research has shown that specialized knowledge in an industry has a direct affect on an auditor's ability to assess audit risks, detect errors and misstatements, and improve earnings quality Maletta and Wright [1996]; Owhoso et al. [2002]; Krishnan [2003]. Mixed evidence from research about audit fees also suggests that industry specialists may earn a fee premium over other auditors e.g., Ferguson and Stokes, [2003]. For example, Craswell et al., [1995] found that specialist Big 8 auditors earn a 34 percent premium over nonspecialist Big 8 auditors but Hay et al., [2006] report that this premium may not be consistent across markets, firms, or time periods.

Recent structural shifts by audit firms in the direction of greater industry focus also suggest that industry specialization may play an increasingly important role in audit quality Hogan and Jeter, [1999]; Solomon et al., [1999]. Researchers have identified a number of other possible reasons for switching auditors, including the possibility that a company may switch to a higher quality auditor in order to provide more credible information to investors and creditors Schwartz and Menon, [1985]. Industry specialist offers a higher level of assurance than does a non specialist e.g., Craswell et al, [1995]. For example, Owhoso et al., [2002] showed that industry-experienced auditors are better able to detect errors within their industry specialization than outside their specialization. O.Keefe et al., [1994] report significantly greater compliance with auditing standards for industry specialists than non-specialists.

2.7 Auditor qualifications and proficiency

The main purpose of the audit is to assure outsiders that the financial statements are free from material misstatements, the value of an audit depends on the outsiders' ex-ante perception of (1) the probability that the auditor will discover the breaches or errors in the reporting system and (2) on the probability that the auditor will report the discovered breaches or errors DeAngelo, [1981]. This factor is very important to develop the auditor and to achieve a high level of quality for Banking Sectors, during:

- Development of leadership and management skills and proficiencies;
- The development of an overall workforce plan;
- Policies relating to 'handing over' of tasks;
- Creation of staff knowledge and skills;
- Equal treatment and fair opportunity to all staff.

Many researches find that there is a positive association between audit quality and the auditor qualifications and proficiency.

Also, technical capability seems to increase the auditor's remuneration: the level of education, the working experience and the certification type of the auditor are found to be positively associated with hourly fee rates. Hence, the results suggesting that both size and technical capability have a positive impact on auditor remuneration. To become a performance auditor, a performance audit team-leader or a performance audit manager, certain distinctive qualifications have to be met. For instance, a performance auditor should be well educated in the social sciences and in scientific Investigation /evaluation methods. Special knowledge of the different functional areas to be audited might also prove essential, but advanced skills in accounting and financial auditing are not always needed in performance auditing or program evaluation.

Where organization have organized their performance auditing separately from financial auditing, it is quite acceptable that personnel selected for performance auditing have different backgrounds and skills than those selected for financial auditing. To meet the quality requirements specified in the Auditing Standards, the SAI should have a program to ensure that its staff maintains professional proficiency through continuous education and training. A key factor in the development process is learning through practical auditing work INTOSAI, [2001]. Managerial training recognizes that demonstrated skill at auditing does not necessarily equip one to manage an ISA or supervise an audit team. The required new skills, such as operational and strategic planning, budgeting for time and money, etc. grow more extensive as one moves to increasingly senior positions within the organization. Continuing education ensures that auditors routinely undergo training to continuously maintain and enhance their professional capabilities. A commitment to life-long learning should be encouraged.

On the other hand, continuous education and training may include such topics as current developments in performance audit methodology, management or supervision, qualitative investigation methods, case study analysis, statistical sampling, quantitative data-gathering techniques, evaluation design, data analysis, and reader-based writing. It may also include subjects related to auditors' fieldwork, such as public administration, public policy and structure, government administration policy, economics, social sciences, or Information Technology science. The non-certified auditors, the peremptory nature of ISA standards is at least vague. Moreover, disciplinary actions such as warnings or cancellations of authorization are, of course, not possible against non-certified auditors. This means that the prevailing legislation, rather than the set of auditing standards adopted by the profession, sets the lower bound of audit quality for the non certified auditors. As a consequence, it may be that the minimum audit quality differs between certified and non-certified auditors.

There is also some evidence supporting that view. For example, Sundgren, [1998] found that non-certified auditors are less likely to modify the audit report, which suggests that non certified auditors provide lower assurance than certified auditors. Simunic and Stein, [1987] suggested that although auditor moral hazard has received sortie attention in the academic literature, it is perceived to be particularly acute in the government environment. In this environment, the chances of client financial failure and consequent ex post revelation of lower-than-implied audit quality are minimal. Thus, there is a need for alternative mechanisms for enhancing the credibility of the audit. Both the General Accounting Office GAO [1987] and the American Institute of Certified Public Accountants AICPA [1987] view appropriate audit procurement practices as a mechanism for ensuring that the contracted audit quality is in fact delivered. The GAO and the AICPA [2003] suggested that appropriate procurement practices can independently contribute to the selection of a competent auditor in a market in which it is difficult to directly assess whether an auditor possesses the specialized knowledge necessary to provide a high quality government audit.

3. Methodology

3.1 Data Collection Methods

This research adopted questionnaire method as a mean for data collecting to examine the main factors affecting auditing quality. This survey consists of the factors that previous studies stated which might affect audit quality, and also the measures that those studies considered as audit quality measures. Accordingly, the questionnaire includes three parts:

Part 1: general information about the sample of the study.

Part 2: questions about audit quality in the banks.

Part 3: questions about factors that affecting auditing quality in the banks.

This survey was distributed over a random sample of external auditors who have experience with banks audit and a random sample of internal auditors in Jordanian commercial banks in order to obtain needed data about their opinions about the most important factors affecting audit quality, and the best measures of audit quality. The data transformed into a quantified numbers to assist in examining the study objectives.

3.2 Models' Specification

In order to examine the effect of independent variables on auditing quality, the following model is used.

$$AuditQ = \alpha + \beta_1 Intersys + \beta_2 Independ + \beta_3 Efficiency + \beta_4 Reputation + \beta_5 Fee + \beta_6 Size + \beta_7 Specialty + \varepsilon$$

Where AuditQ denotes auditing quality, Intersys is internal control system, Independ is the auditor independency, Efficiency is auditing efficiency, Reputation is the reputation of the auditing office, Fee is auditing fees, Size is the size of the auditing office, Specialty is the specialty and proficiency of auditor, and \mathcal{E} denotes the random error.

On the other hand, model (1) can be rewritten to include dummy variable as follows:

AuditQ =
$$\alpha + \beta_1 Intersys + \beta_2 Independ + \beta_3 Efficiency + \beta_4 Reputation + \beta_5 Fee + \beta_6 Size + \beta_7 Specialty + \beta_8 Dum + \varepsilon$$

Dum is a dummy variable taking the value of zero if the auditor is external and one if the auditor is internal? The dummy variable is intended here to examine the differences between internal and external auditors. If the dummy variable is significant, then there are significant differences in auditing quality between internal and external auditors.

3.3 Research Hypotheses

After reviewing the literature that covered the topic of audit quality, the researchers developed the following hypotheses that were set out to achieve the study objectives:

- H 1: The internal control system doesn't affect auditing quality in the Jordanian banking sector.
- H 2: The independence of the auditor doesn't affect auditing quality in the Jordanian banking sector.
- H3: Auditor efficiency doesn't affect auditing quality in the Jordanian banking sector.
- H4: The reputation of the auditing office doesn't affect auditing quality in the Jordanian banking sector.
- H5: Auditing office fee doesn't affect auditing quality in the Jordanian banking sector.
- H6: The size of the auditing office doesn't affect auditing quality in the Jordanian banking sector.
- H7: The specialty and proficiency of the auditor doesn't affect auditing quality in the Jordanian banking sector.
- H8: There are no differences in auditing quality between internal and external auditors.

3.4 Data Analysis Procedures

This research implements a number of statistical techniques and procedures that help to examine research hypotheses. These techniques include reliability and validity test, frequency analysis, independent sample t-test, descriptive statistics, correlation matrix, linear regression, and simple regression. All statistical procedures were estimated using Statistical Package for Social Sciences (SPSS). The following sections shed some lights on the concept of each statistical procedure used in the research.

4. Results

4.1 Descriptive Statistics

Based on the following table we can make the following observations:

- The number of observations (respondents) for each variable was 85, which reflect that the respondents have answered all questions concerning study variables.
- The average value for audit quality was 74.4%, indicating that the respondents believe that audit quality in the Jordanian banking sector is relatively high.
- The average value of the independent variables ranged from 70% to 84%, which means that the respondents assume that audit quality is highly affected by those variables.
- Standard deviation for all variables was relatively low, which indicate that the respondents' answers are consistent and close to each other.

Table (1): Descriptive Statistics for Study Variables

	N	Minimum	Maximum	Mean	Std. Deviation
auditingQ	85	.69	.78	.7440	.01930
intersys	85	.65	1.00	.8391	.07065
independ	85	.68	1.00	.8321	.07555
Efficiency	85	.68	1.00	.8406	.08082
Reputation	85	.44	1.00	.7289	.11749
Fee	85	.20	1.00	.7200	.15318
Size	85	.36	1.00	.7012	.13432
Specialty	85	.53	1.00	.8192	.09628

4.2 Regression Analysis

Linear regression estimates the coefficients of the linear equation, involving one or more independent variables that best predict the value of the dependent variable. In the following sections we will presents the results of regression analysis for study model.

1. Regression Analysis for Model (1)

The first model examines the effect of all independent variables on auditing quality without the dummy variable. Table 2 presents the results of this regression.

Table (2): Regression Results for Model (1)

 $AuditQ = \alpha + \beta_1 Intersys + \beta_2 Independ + \beta_3 Efficiency + \beta_4 Reputation + \beta_5 Fee + \beta_6 Size + \beta_7 Specialty + \varepsilon$

	Model Summar∜							
			Adjusted	Std. Error of	Durbin-			
Model	R	R Square	R Square	the Estimate	Watson			
1	.826 ^a	.682	.654	.01099	2.124			

a. Predictors: (Constant), Specialty, Fee, independ, Efficiency, intersys, Reputation, Size

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Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.020	7	.003	23.639	.000ª
	Residual	.009	77	.000		
	Total	.029	84			

a. Predictors: (Constant), Specialty, Fee, independ, Efficiency, intersys, Reputation Size

Coefficients

		Unstand Coeffi	lardized cients	Standardized Coefficients			Collinearity	/Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.577	.019		29.757	.000		
	intersys	.006	.021	.021	.271	.787	.674	1.483
	independ	.028	.018	.113	1.536	.129	.755	1.324
	Efficiency	.042	.017	.183	2.478	.015	.756	1.324
	Reputation	.047	.014	.294	3.393	.001	.549	1.821
	Fee	.048	.011	.392	4.317	.000	.501	1.995
	Size	.016	.013	.117	1.239	.219	.464	2.154
	Specialty	.032	.015	.167	2.219	.029	.726	1.377

a. Dependent Variable: Audit Q

Based on the above table we can conclude the following:

b. Dependent Variable: Audit Q

b. Dependent Variable: Audit Q

- R2 was 68% and adjusted R2 was 65%, which reflects the explanatory power for independent variables to explain about 65% of the changes in the dependent variable Audit Q.
- Durbin-Watson statistic (which was 2.12) indicates that there is no serial correlation (autocorrelation) in the dependent variable, since it is so close from the optimal value (2).
- F-statistic and its significant denote the goodness of fit. In other word, f-statistic indicates that the model is properly specified to reflect the effect of independent variables on the dependent variable.
- The results indicate that Efficiency, Reputation, Fee, and Specialty are the only variables that have a positive and significant effect (at 5% significant level) on AuditQ; while the other variables seem to have no effect on AuditQ.
- Finally, variance inflation factor (VIF) was too low for all independent variables, indicating the absence of multicollinearity problem.

Moreover, to exclude insignificant variables that might affect the results negatively, we utilize stepwise regression analysis. Stepwise regression is a method selection option that allows specifying how independent variables are entered into the analysis. According to this method, stepwise variable entry and removal examines the variables in the block at each step for entry or removal. At each step, the independent variable not in the equation which has the smallest probability of F is entered, if that probability is sufficiently small. Variables already in the regression equation are removed if their probability of F becomes sufficiently large. The method terminates when no more variables are eligible for inclusion or removal.

Table 3 shows the results of stepwise regression for model (1).

Table (3): Stepwise Regression Results for Model (1)

 $AuditQ = \alpha + \beta_1 Intersys + \beta_2 Independ + \beta_3 Efficiency + \beta_4 Reputation + \beta_5 Fee + \beta_6 Size + \beta_7 Specialty + \varepsilon$

Model Summary ^e								
			Adjusted	Std. Error of	Durbin-			
Model	R	R Square	R Square	the Estimate	Watson			
1	.665 ^a	.442	.435	.01403				
2	.747 ^b	.559	.548	.01255				
3	.794 ^c	.631	.617	.01 155				
4	.817 ^d	.667	.650	.01 104	2.183			

- a. Predictors: (Constant), Reputation
- b. Predictors: (Constant), Reputation, Fee
- c. Predictors: (Constant), Reputation, Fee, Specialty
- d. Predictors: (Constant), Reputation, Fee, Specialty, Efficiency
- e. Dependent Variable: Audit Q

		Sum of				
Model		Squares	df	Mean Square	F	Sig.
1	Regression	.013	1	.013	65.753	.000 ^a
	Residual	.016	83	.000		
	Total	.029	84			
2	Regression	.016	2	.008	51.908	.000 ^b
	Residual	.013	82	.000		
	Total	.029	84			
3	Regression	.018	3	.006	46.194	.000 ^c
	Residual	.011	81	.000		
	Total	.029	84			
4	Regression	.020	4	.005	40.046	.000 ^d
	Residual	.010	80	.000		
	Total	.029	84			

a. Predictors: (Constant), Reputation

b. Predictors: (Constant), Reputation, Fee

c. Predictors: (Constant), Reputation, Fee, Specialty

d. Predictors: (Constant), Reputation, Fee, Specialty, Efficiency

e. Dependent Variable: Audit Q

Coefficients^a

		Unstand Coeffic		Standardized Coefficients			Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.670	.010		69.631	.000		
	Reputation	.106	.013	.665	8.109	.000	1.000	1.000
2	(Constant)	.660	.009		74.517	.000		
	Reputation	.070	.014	.439	4.985	.000	.695	1.439
	Fee	.050	.011	.410	4.656	.000	.695	1.439
3	(Constant)	.624	.012		51.264	.000		
	Reputation	.061	.013	.385	4.687	.000	.676	1.479
	Fee	.047	.010	.390	4.806	.000	.692	1.444
	Specialty	.054	.013	.277	3.988	.000	.941	1.062
4	(Constant)	.596	.015		39.503	.000		
	Reputation	.051	.013	.321	3.943	.000	.628	1.592
	Fee	.054	.010	.440	5.540	.000	.660	1.514
	Specialty	.043	.013	.220	3.181	.002	.867	1.153
	Efficiency	.048	.016	.207	2.933	.004	.837	1.194

a. Dependent Variable: Audit Q

Based on Table 3 we can conclude the following:

• The analysis produces four models as follows:

 $AuditQ = \alpha + \beta_1 Reputation$

 $AuditQ = \alpha + \beta_1 Reputation + \beta_2 Fee$

AuditQ= $\alpha + \beta_1$ Reputation+ β_2 Fee+ β_3 Specialty

AuditQ= $\alpha + \beta_1$ Reputation+ β_2 Fee+ β_3 Specialty+ β_4 Efficiency

- These models include the most important (significant) variables that affect AuditQ. Other variables were eliminated because they are not significant and affect other variables negatively.
- Adjusted R2 ranged from 66.5% to 81.7%, which reflects the explanatory power for independent variables explain large proportion from the change in the dependent variable AuditQ. However, the first model, which includes Reputation only, considered the basic model because it explains about 66.5% of the change in AuditQ.
- Durbin-Watson statistic (which was 2.18) indicates that there is no serial correlation (autocorrelation) in the dependent variable, since it is so close from the optimal value (2).
- F-statistic and its significant denote the goodness of fit for all models (a, b, c, and d). In other word, f-statistic indicates that the four models are properly specified to reflect the effect of independent variables on the dependent variable.

- The results indicate that Reputation, Fee, Specialty, and Efficiency are the most important variables that have a positive and significant effect (at 1% significant level) on AuditQ.
- Finally, variance inflation factor (VIF) was too low for all independent variables indicating the absence of multicollinearity problem.

2. Regression Analysis for Model (2)

The second model examines the effect of all independent variables on AuditQ, after inserting dummy variable. Dummy variable is intended here to examine the differences between internal and external auditors. The dummy variable will take the value of zero if the auditor is external and one if the auditor is internal. Table 4 presents the results of this regression.

Table (4): Regression Results for Model (2)

 $AuditQ = \alpha + \beta_1 Intersys + \beta_2 Independ + \beta_3 Efficiency + \beta_4 Reputation + \beta_5 Fee \\ + \beta_6 Size + \beta_7 Specialty + \beta_8 Dum + \varepsilon$

	Model Summary ^o							
			Adjusted .	Std. Error of	Durbin-			
Model	R	R Square	R Square	the Estimate	Watson			
1	.826 ^a	.683	.649	.01105	2.138			

- a. Predictors: (Constant), dum, intersys, Size, Efficiency, independ, Specialty, Reputation, Fee
- b. Dependent Variable: Audit Q

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	Model	Sum of Squares	df	Mean Square	F	Sig.
Γ	1 Regression	.020	8	.002	20.446	.000 ^a
ı	Residual	.009	76	.000		
ı	Total	.029	84			

- Predictors: (Constant), dum, intersys, Size, Efficiency, independ, Specialty, Reputation, Fee
- b. Dependent Variable: Audit Q

Coefficients^a

		Unstand Coeffic		Standardized Coefficients			Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.576	.020		29.076	.000		
	intersys	.005	.021	.019	.247	.806	.670	1.493
	independ	.028	.018	.112	1.504	.137	.752	1.330
	Efficiency	.044	.018	.189	2.437	.017	.691	1.446
	Reputation	.048	.014	.299	3.354	.001	.524	1.908
	Fee	.048	.011	.396	4.282	.000	.489	2.045
	Size	.016	.013	.115	1.215	.228	.463	2.160
	Specialty	.031	.015	.162	2.064	.042	.680	1.471
	dum	.001	.003	.021	.277	.782	.758	1.319

a. Dependent Variable: Audit Q

According to Table 4 we can conclude that the results are similar to the previous regressions; Where Efficiency, Reputation, Fee, and Specialty are the only variables that have a positive and significant effect on AuditQ. Also, the t-statistic and its significant suggest that the dummy variable is not significant, which imply that there is no difference in auditing quality between internal and external auditors.

4.3 Results of Hypothesis Testing

- 1. Based on the above discussion, we can summarize the results of hypotheses testing as shown in table 5
- 2. Study sample consisted mainly from large auditing office, which may lead to ignore size and internal control system effect on auditing quality.

3. There is no difference between internal and external auditors, this may result from the fact that both internal and external auditors seek to ensure the honesty and objectivity of reporting in the firm.

Table (5): Results of Hypotheses Testing

No	Hypothesis	Result
1	The internal control system doesn't affect auditing quality in the Jordanian banking sector.	Accept
2	The independence of the auditor doesn't affect auditing quality in the Jordanian banking sector.	Accept
3	Auditor efficiency doesn't affect auditing quality in the Jordanian banking sector.	Reject
4	The reputation of the auditing office doesn't affect auditing quality in the Jordanian banking sector.	Reject
5	Auditing office fee doesn't affect auditing quality in the Jordanian banking sector.	Reject
6	The size of the auditing office doesn't affect auditing quality in the Jordanian banking sector.	Accept
7	The specialty and proficiency of the auditor doesn't affect auditing quality in the Jordanian banking sector.	Reject
8	There are no differences in auditing quality between internal and external auditors.	Accept

4. Conclusions and Recommendations

Based on the results, the researchers conclude the following:

- 1. Standard deviation statistics for all variables were relatively low, which indicate that the respondents' answers are consistent and close to each other.
- 2. The weighted average score for auditing quality was 3.72 out of five (about 74%), which indicates that the respondents think that auditing quality in the Jordanian banking sector ranges from satisfactory to very good.
- 3. The weighted average score for the independent variables (factors that expected to influence auditing quality) ranged from 3.51 to 4.20 out of five (from 70% to 84%), indicating that the respondent almost agree that the selected independent variables affecting auditing quality.

The results confirmed the existence of a positive and significant correlation between auditing quality and auditing efficiency, the reputation of auditing office, auditing fees, the size of auditing office, and the specialty and proficiency of auditor.

- T-test results indicate that there is no difference in auditing quality between internal and external auditors.
- The results indicate that Efficiency, Reputation, Fee, and Specialty are the only variables that have a positive and significant effect (at 5% significant level) on auditing quality, while the other variables seem to have no effect.

Based on study conclusions, the researchers recommend the following:

- 1. Auditing quality in the Jordanian banking sector ranges from satisfactory to very good. This requires the internal and external auditors to scale up their auditing quality.
- 2. Increasing auditing efficiency leads to increase auditing quality. So, auditors should have degree in his specialty field, and a necessary work experience will effect on his efficiency, and strong knowledge and familiarity with the regulations, instructions and standers which relating to the accounting and auditing position will benefit the auditor in his work, on the other hand the training and developing the skills of the auditor during participate in programs, and to know the development technical's way to discover the fraud and counterfeit, and trying to get professional certificates like CPA...etc all of that will enable him to improve his quality of work.
- 3. Auditing offices should seek to increase their reputation by its interested to appointment honest and objectives auditors who can reliable on its opinions and its reports which should be reflect the actual situations and the auditor should be independent, and also should be a n active control department to make following up on all elements in the firm like staff, managers, equipments. The reputation leads to spread of the firms which conceder as a scale for the quality of professional performance.

- 4. Jordanian banks should offer competitive fees and rewards, bounces for internal as well as external auditors, to give him incentive to work and do it better manner, and to be satisfied and comfortable and sometimes nominate him to audit the branches of banks of head office inside or outside of country with a high salary, specially the auditors who have a high qualified and abilities all of this lead to retain him, to achieve the stability for the firm.
- 5. Auditors should seek to maintain higher level of specialty in auditing through participating in special seminars and training will add to the auditors more experience to his field and increase his qualification, meeting with people who are specialization in auditing filed will benefit and affect positively on his proficiency, therefore the professional auditor should know the banking policies, rules, restrictions' and directions for use it.

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