

# **Quality Control Elements and Auditor Fraud Risk Assessment: An Experimental Study**

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*This study investigates and analyzes if auditor performance toward fraud risk assessment can be an indicator for the effectiveness of some of the ISA 220 quality control elements, mainly engagement team experience and direction and supervision. An experiment was conducted with a number of auditors working in audit firms with international affiliations in Egypt. Results suggest that proper auditor experience rather than direction and supervision inside audit firms could have a significant impact on auditor fraud risk assessment. The findings have implications for regulators and the accounting profession concerned with monitoring and promoting audit quality, especially in the Egyptian environment.*

## **INTRODUCTION**

The recent wave of accounting scandals has opened a debate among academics, regulators, and the accounting profession on how to restore public confidence in corporate financial disclosures. The transparency and reliability of financial data play a key role in stabilizing the securities market and the society. The reliability of financial information can be achieved through the performance of high-quality audits. Audit quality is an essential matter for many parties including management, professional organizations and monitoring bodies. Due to audit quality importance, the International Auditing and Assurance Standards Board (IAASB) issued quality control standards; the International Standard on Quality Control (ISQC) NO.1 and the International Standard on Auditing (ISA) No.220. Such standards involve a set of quality control elements to be implemented both at the audit firm level (i.e. ISQC1) and at the engagement level (i.e. ISA 220) including for example leadership responsibilities, assignment of the engagement team, engagement performance (i.e. direction, supervision, and review) and documentation. The importance of the establishment of quality control systems had consequently gained great attention in different countries.

The adoption of IASs, IFRSs and ISAs by the developing countries is not only imperative but also required in order to access the capital markets at the global level. It is an international trend, which is recognized as best practice around the world (Faraj and Akbar, 2010). Richter Quinn (2004) as cited by

Zakari (2012) concluded that accounting and financial information originating from developing countries is still difficult to trust, despite the urgent need for these countries to attract foreign investment and foreign capital.

In Egypt, the ISAs are applied in the absence of Egyptian Auditing standards which is a translated copy of the ISA. Despite that, auditor`s role in Egypt faces significant problems. These problems involves lack of educational quality, little awareness among many practicing auditors of international best practice concerning conflicts of interest and auditor independence, and shortage in compliance with accounting and auditing standards. Moreover, knowledge deficiencies of most practitioners by ISA in practice restrict ensuring sound auditing practice. (Wahdan et al, 2005). Furthermore, among the factors affecting the non-compliance with accounting and auditing standards in Egypt as mentioned by the World Bank (2009) is that the quality of auditing process is influenced by assigning or changing auditors, which may force auditors to comply with the wishes of top management affecting the level of compliance with accounting and auditing standards. Toward enhancing audit quality, the Egyptian Financial Supervisory Authority (EFSA) imitating a small model of PCAOB in U.S. issued its decree no 84 dated 16/7/2008 to establish a unit to assess the quality of auditors` work in accordance with the Egyptian Standards on Auditing (ESA) and Egyptian Code of professional Conduct. Such decree placed more responsibilities on auditors of listed companies. One of its duties is requiring audit firms registered with EFSA since 2009 to provide data regarding the policies and procedures implemented within the firm to ensure the existence of a quality control system and that audit firm performance complies with quality standards and independence requirements. The quality control system required to be established by these firms is what is required by ISQC 1 and ISA 220. These requirements emerged as an effort to limit some of the problems faced within the Egyptian auditing environment (Wahdan et al, 2005).

However, the importance of ensuring audit quality in audit firms should not only focus on the establishment of quality control system inside audit firms. But there should be a basis for making judgment about audit quality for performance of audits through developing valid and reliable measures of audit quality. Statements about the rigorous review by the Public Company Accounting Oversight Board (PCAOB) resulting in improvements in audit quality are not supportable with valid evidence (Oliverio and Newman, 2008). Such measures could help in the provision of audit quality indicators. Audit quality indicators are defined by the PCAOB (2013) as measures of elements of audit quality that provide insight into financial statement audit quality.

Some efforts have been recognized toward the need for developing indicators of such audit quality. The Advisory Committee on the Auditing Profession of the US Department of the Treasury in 2008 (p. VIII-14) in its report recommended that the PCAOB “*determines the feasibility of developing key indicators of audit quality and effectiveness and requiring auditing firms to publicly disclose these indicators.*” If indicators are determined, then the PCAOB is directed to monitor the reported indicators as part of its oversight function. Despite the difficulty of developing such indicators according meeting held by the PCAOB`s Standing Advisory Group (SAG) in 2008, in May 2013 the PCAOB proposed a project for developing audit quality indicators for its suggested audit quality framework elements to help inspection selections and target inspection work (PCAOB, 2013). e goals of such a project involves providing audit committees, investors, management, audit firms, other regulators, and the public with audit quality indicators, providing insight into audit quality for their decisions and policymaking. Moreover, the Center of Audit Quality (CAQ) in 2014 proposed a set of quantitative indicators to provide insight about audit firm system of quality control. However, those indicators still subject to pilot testing to determine its appropriateness.

From an academic perspective, there is no agreement among researchers about measurement of audit quality (Reisch, 2000, and Basil Committee, 2008). Despite that, many studies relied on indirect measures of audit quality such as peer review ratings, going concern opinions and discretionary accruals (e.g., Knechel and Vanstraelen, 2007; Chi et al, 2009; Choi et al, 2010; Laitinen, 2015 and Cahan and Sun, 2015) when measuring the impact of different audit quality elements such as audit firm size, audit partner rotation and auditor experience. They relied on indirect approach as they believe that there is inability to

observe audit quality directly due to difficulty in gaining access inside audit firms. Laitinen (2015) believes that the audit process itself is uncertain and unobservable.

However, there is a need to focus more on direct measures, more specifically measures related to auditor performance in audit process, where the auditor could have more influence or control over the level of audit quality (Defond and Zhang, 2013). Moreover, most indirect measures had been criticized regarding their appropriateness. There is a doubt that discretionary accruals are an appropriate earnings quality proxy since they are already heavily examined by auditors (Schelleman and Knechel 2010). Additionally, researches using measures related to the issuance of going concern qualifications did not gain access to audit firms to examine the inputs of the auditor's reporting decision (Knechel et al, 2013). Bing et al (2014) argued that the direct approach help people to better and easily evaluate the level of audit quality while the indirect measures could not inform people of the level until they logically figure out the relationship between those proxies and the nature of audit quality.

In order to contribute to this discussion and to extend current literature on audit quality measures the researchers will investigate whether auditor fraud risk assessment can be relied upon as a direct measure or indicator for the effectiveness of some of the quality control elements set by ISA No.220, and increasingly indicated as important elements (e.g. audit team experience and knowledge and manager/partner attention to the audit team) by the auditing literature (e.g. Schroeder et al, 1986; Carcello et al, 1992, and Kilgore et al, 2011 & 2014).

This investigation is important for several reasons. First, while much of the focus in the accounting literature has been on audit quality in the U.S. and other developed countries, a comprehensive study of the audit quality in developing countries is of equal significance given the increasing importance of international investment. It provides useful insights to questions raised by standard setters and regulators toward monitoring and promoting audit quality inside audit firms especially in developing countries. There is a need for developing auditor performance related measures to make valid judgments about quality control systems inside audit firms. Second, detecting fraud is a high priority in the audit profession. Leaders of the profession argue that the future demand for audits will depend largely on auditors' ability to detect and deter fraud (Wilks and Zimbelman 2004; Elliott 2002). Historically, the failure to detect fraud has proven costly to audit firms (Bonner et al. 1998). Third, prior limited research studies (e.g. Bernardi 1994, Carpenter 2007, Hunton and Gold, 2010, and Figuroe, 2013) showed mixed evidence regarding the impact of either experience or brainstorming through open discussions among audit team members on fraud risk assessment task, a matter that requires more investigation in such area. The study also takes into consideration the effect of discussion on less experienced auditor performance, a matter that is considered by ISA 220 but did not take considerable attention in prior research. Accordingly, the study can complement judgment and decision making research (JDM) in auditing that focuses mainly on accuracy of auditor judgments in fraud risk tasks. This especially important in the Egyptian auditing environment where access to auditor performance inside audit firms is rare and most JDM researches in auditing are conducted in developed countries.

To achieve research objective, the current study employed a 2x2 experimental study with 50 experienced auditors and 22 less experienced ones working in Egyptian audit firms with international affiliations. The experiment involved two phases, pre and post direction and supervision. "Pre" represents participants' initial judgments and assessments related to a fraud risk task before any discussion or supervision from a number of audit managers. "Post" represents the participants' judgments and assessments of the same task but after clarifications and discussions session between the participants and those professional managers. The data obtained from the experiment has been statistically analyzed. The findings from the analysis support the notion that auditor proper fraud risk assessment could be an indicator that audit firms assigned competent experienced personnel to the audit process rather than an indicator that direction and supervision had taken place inside the firm.

The research paper is organized into five sections. Section 1 presented the introduction of the research problem and objectives. Section 2 provides a discussion of prior literature and develops the research hypotheses. Section 3 involves the research method including the experimental study that is conducted to

test the research hypotheses. Section 4 involves the results of the study. Finally, section 5 contains the conclusions, limitations and recommendations of the research.

## **BACKGROUND AND HYPOTHESES DEVELOPMENT**

### **Prior Literature**

#### *The Nature and Attributes of Audit Quality*

Despite the importance of audit quality and the different theories suggesting such importance (agency, lending credibility, inspired confidence, and policeman theories), no single definition of audit quality exists (FRC 2006, p. 16). Academics have traditionally thought of audit quality as: “the *market assessed joint probability that a given auditor will both (a) discover a breach in the client accounting system, (b) report the breach*” (De Angelo, 1981, p.186) as cited by Knechel et al (2013). Using this definition, it seems that audit quality constitutes both auditor competence (in discovering the breach) and his objectivity and independence (in reporting such breach). Kilgore (2007) observes whilst the De Angelo definition of audit quality has been widely quoted, it has also been criticized as not being broad enough and incomplete.

There are also a number of other definitions of audit quality in the literature. There are definitions related to auditor ability to meet legal and professional requirements (e.g. Government Accountability Office, 2003, Francis, 2004 and Broberg, 2007). Other practitioners focus on error detection and the financial statement outcome, suggesting that a high-quality auditor will detect errors in reported earnings and enhance the reliability of the financial statements (e.g. Gul et al, 2002, Behn et al, 2008 and Wedemeyer, 2010). However, it could be argued that the existence or lack of material misstatements could provide only partial insight into audit quality because there may have been no material misstatements to detect (IAASB, 2011b). Furthermore, the existence of material misstatements cannot be an indicator of poor audit quality as auditors provide reasonable rather than absolute assurance that the financial statements do not contain material misstatements

Others argued that the audit quality definition could differ depending on the party perceiving such quality, whether financial statement user, audit firm, auditor, regulators or the society (Knechel et al, 2013). A more comprehensive view of audit quality was provided by the IAASB (2011a). Such view concentrate more on the engagement team attributes as what constitute a reliable audit opinion and high audit quality. Furthermore, one of the most recent definitions of audit quality is the one set by the PCAOB (2013): “*meeting investors’ needs for independent and reliable audits and robust audit committee communications on: financial statements, including related disclosures; assurance about internal control; and going concern warnings*”. It seems that such definition focus more on results and outcomes rather than the process itself or inputs that most of the other previous definitions have focused on.

It is shown from the previous definitions and the different point of views, that there is no agreement on a single definition of audit quality. Audit quality definition should be a comprehensive one taking into consideration all the aspects that could constitute such quality and the different parties interested in such quality. Thus, such definition represents a significant challenge facing practitioners, academics, and regulators. However from the previous definitions, the researchers can define audit quality as the one performed in accordance with legal and professional requirements in a manner that could improve the reliability of financial reporting taking into consideration the interests of different parties concerned with such quality.

At the same time, many research studies have been conducted to determine the different audit quality elements based on the perceptions of different parties concerned with such quality (Pany and Reckers 1988; Schelluch and Thorpe 1995; The IAASB 2011 b). Schroeder et al (1986), in surveying a number of audit committee chairpersons about audit quality factors, found that audit team factors (e.g. team experience, communication between audit team and management, planning and conduct of the team work, and level of partner/manager attention to the audit) are perceived more important than audit firm factors such as provision of non-audit services. Similar results were found by Chen et al (2001) in his interviews

with auditors in China about the attributes of audit quality and compared with the perceptions of Chinese regulators. Also, Carcello et al (1992) focusing on the perceptions of both users and preparers of audit quality factors found that characteristics related to members of the audit team were generally perceived to be more important to audit quality than characteristics related to the audit firm itself, such as litigation record. In agreement with that is the study of Duff (2004) who found in his survey that reputation and capability are the most important dimensions of audit quality while the provision of non-audit services are among the least important dimension. Moreover, Kilgore et al (2011, 2014) supported those previous studies and found that users of audit service consider audit team attributes to be relatively more important than audit firm attributes.

In addition, Ramussen and Jensen (1998) surveyed a number of auditors, preparers (directors), external users (shareholders and financial journalists) regarding a number of audit quality dimensions. Shareholders and journalists weighted 'auditors' skeptical attitude to the auditee' and 'auditors' openness in the audit report' very high, while directors (as preparers) did not emphasize the first, and public accountants did not emphasize the second. Regarding perceptions of auditors in developing countries, Awadallah and Elbayoumi (2012) reported the perceptions of professional auditors in Egypt concerning how they perceive the quality of the service they provide. It was revealed that the interviewees generally believed that the audit quality is preserved high in the presence of four factors: high ethical standards to guide and regulate the profession, a well-planned and conducted audit, a more knowledgeable audit team, and good relationship with the client management.

To conclude, it seems that most of studies focused on surveying different participants concerned with audit quality, whether auditors, users or preparers of financial statements. Firstly, there was perceived difference in their responses regarding the degree of importance of each audit quality factor due to difference in participants' interests. Moreover, differences in business culture (including the legal and regulatory environment), the political landscape and economic environment in the countries in which auditors operate might have an impact on the perceptions of audit quality (The Institute of Chartered Accountants in England and Wales, 2002). The difference in perceptions could also result from the varying degree of those different parties' direct involvement and access to the audit process (IAASB, 2011b). Secondly, most of the studies ( e.g. Schroeder et al, 1986; Carcello et al, 1992, and Kilgore et al, 2011, 2014) agree that audit team attributes, mainly experience, industry expertise and partner/manager attention to audit team are perceived more important than audit firm attributes, such as provision of non-audit services and auditor rotation, in enhancing audit quality. This could be justified by the fact that the audit team and personnel are directly involved in the audit process and thus their attributes are expected to directly impact such process. Thirdly, what constitutes audit quality is subjective and varies depending on the perception and expectation of various parties concerning audit services. Finally, these studies focused only on tracking the perceptions and opinions of different participants regarding the degree of importance of audit quality factors without empirically measuring such importance.

### *Measuring Audit Quality*

Despite the numerous studies about audit quality, there is no agreement among researchers about measurement of audit quality. This view is supported by Reisch (2000) who argues that audit quality is a multi-dimensional potential construct; it is extremely difficult to measure and as a result, the extant literature reflects different measures of audit quality. According to the Basel Committee (2008), there is no tool to measure audit quality, but there are recent efforts that appraised how to measure it. Oliverio and Newman (2008) noted that there is no basis for making any judgment about audit quality for performance of audits of publicly-owned entities that are registered with the PCAOB. Oliverio and Newman (2008, p.19) argued that "*it is time to undertake the measurement of audit quality*" "*Firms performing audits with unrelenting commitment to quality that can be measured will be a major breakthrough in the world of public accounting*".

From an academic perspective, previous studies have shown excessive effort toward determining the various elements that could affect such quality and used alternatives to measure it. Hussein and Hanefah (2013) found that in measuring audit quality, researchers have taken one of the following approaches,

which are: (1) direct approach, based on assumption that reporting of contract breaches and the probability of discovery will be reflected in features of the audit such as abuses and errors made by auditors. Despite its directness, they viewed that this approach is difficult to reach and (2) an indirect approach that measures audit quality from an ex-ante perspective either using surrogates of quality or checking the attributes or factors perceived to be associated with audit quality (Kilgore, 2007). Moreover, Chadegani (2011) also classified the audit quality measures that have been used in prior studies as direct (e.g. financial reporting compliance with GAAP, quality control review, bankruptcy, and SEC performance) and indirect (e.g. audit size, auditor tenure, industry expertise, audit fees, economic dependence, reputation and cost of capital).

There are also limited studies that focused mainly on developing multiple measures. Laitinen (2015) investigated multiple measures of audit quality while focusing on individual auditor characteristics such as gender and experience. He focused on developing a set of indirect measures for outcomes of audit believing that the audit process itself is uncertain and unobservable. The measures involve peer review ratings, discretionary accruals, and going concern opinions. However, most indirect measures had been criticized regarding their appropriateness. There is a doubt that discretionary accruals are an appropriate earnings quality proxy since they are already heavily examined by auditors (Schelleman and Knechel 2010). Additionally, researches using measures related to the issuance of going concern qualifications did not gain access to audit firms to examine the inputs of the auditor's reporting decision (Knechel et al, 2013).

There is a need to focus more on direct measures, more specifically measures related to auditor performance in audit process. This is due to several reasons. Firstly, is to avoid the limitations of other measures used previously, such as the use of earning management measures (Woodland and Reynolds, 2003). Secondly, the reliance on auditor performance related measures is considered more direct and straightforward measures of the quality of audit service performed by auditors (Defond and Zhang, 2013). Defond and Zhang (2013) viewed that earning quality proxies are less direct measures of audit quality than restatements or going concern opinions, because the auditor's influence on the quality of reported earnings is likely to be more limited than his or her influence over preventing material misstatements or issuing a correct audit opinion. Third, the IAASB (2014) believed that its proposed audit quality framework, by itself, will not be sufficient for the purpose of evaluating the quality of an individual audit. This is because detailed consideration will need to be given to matters such as the nature and extent of audit evidence obtained in response to the risks of material misstatement in a particular entity, the appropriateness of the relevant audit judgments made, and compliance with relevant standards. Fourth, studies that examine the supply side factors, i.e. auditor's ability to deliver quality that depends on their competencies as reflected in factors such as training, skills, and expertise, exclusively used output-based proxies such as preventing material misstatements and correct issuance of audit opinion (Defond and Zhang, 2013). Finally and more interestingly, Francis (2011) in developing the audit quality framework emphasized that the quality of audit inputs flow through to the audit process, where audits are of higher quality when the engagement team personnel make good decisions regarding the specific tests to be implemented and appropriately evaluate the evidence from these tests leading to the audit report. Bing et al (2014) argued that the direct approach help people to better and easily evaluate the level of audit quality while the indirect measures could not inform people of the level until they logically figure out the relationship between those proxies and the nature of audit quality.

As a regulatory effort, in May 2013, the PCAOB proposed a project for developing audit quality indicators for its suggested audit quality framework elements to help inspection selections and target inspection work (PCAOB, 2013). One of the project goals is provide audit committees, investors, management, audit firms, other regulators, and the public with AQIs, providing insight into audit quality for their decisions. The project seeks to develop quantitative measures. However, some of the measures, such as the quality of communication with audit committees may be subjective. Moreover, the CAQ in April 2014 has proposed a set of potential audit quality indicators (AQI) that it believes will provide the greatest opportunity to enhance discussions between auditors and audit committees and the most benefit to audit committees in fulfilling their responsibility for oversight. However, it could be argued that those

regulatory efforts are still projects that will work in it in the future years and academic efforts is needed to provide contribution toward their completion.

According to the previous discussion, we argue that there should be more academic efforts that aim at developing direct measures of audit quality. There is a need to develop measures to serve as indicators for the effective application of quality control elements set by ISA 220 and ISQC 1. CAQ (2014) believes that there is a need for indicators that could provide additional perspective on the key elements of firm's system of quality control as it applies to a particular audit, and could be useful in furthering an audit committee understanding of matters that can contribute to the performance of a quality audit.

Among those different quality control elements, the researchers will focus on experience of engagement team and direction and supervision elements. Prior research studies (e.g. Schroeder, 1986; Carcello et al, 1992 , and Kilgore et al, 2011) suggests that audit team attributes, mainly experience, and partner/manager attention to audit team are perceived more important than audit firm attributes, such as provision of non-audit services and auditor rotation, in enhancing audit quality.

The practitioners stress the importance of individual expertise, experience, skills and values to the quality of audits: "*Audits are performed by people, so audit quality depends on their quality. The quality of a firm's people and their performance depends on their competence and motivation*" (ICAEW, 2002, p. 18). Supporting such importance, the PCAOB (2013, p.13) in its project toward developing audit quality indicators stated that "*human capital is one of an auditing firm's most important assets*". Moreover, direction of engagement team helps informing the members of the engagement team of matters relevant to the audit engagement. Also, the engagement partner shall take responsibility for the engagement team undertaking appropriate consultation on difficult or contentious matters. As stated in ISQC1 (p.61) "*consultation helps to promote quality and improves the application of professional judgment*".

The researchers will focus on fraud risk assessment as an auditor performance related measure to serve an indicator for the effective application of both assignment of competent personnel and direction and supervision. Such assessment directly affects the audit process quality. It attempts to measure actual audit quality rather than perceived audit quality using an output of the audit process (Defond, and Zhang, 2013). As concluded by Nelson and Tan (2005), many of the audit tasks that could help auditors in arriving to an accurate audit opinion and previously examined in the auditing literature involved risk assessments, including the audit-risk model and related audit planning decision.

### *Fraud Risk Assessment*

Since its emergence as a profession and until the forties of the 20th century, the main responsibility of the audit function was to detect frauds (Dowler et al., 1912 and Walton *et al.*, 1916) as cited by Robu et al (2012). Based on that responsibility, the *Policeman Theory* consequently emerged where the auditor is regarded as a policeman, whose role is to check the accuracy of financial statements, for preventing and detecting frauds (Hayes *et al.*, 2005). Hammersely et al (2011a) defined fraud risk as "*the risk that the client and its management would intentionally cause the financial statements to be materially misstated*". ISA 240 offers examples of fraud risks, analytical procedures for fraud detection, circumstances which can signal their presence, as well as anti-fraud programs and controls. In parallel, SAS 99 replaces SAS 82 and introduces the *brainstorming* concept, accomplished on audit team level in order to assess and determine whether a customer company may be affected by frauds and determine the adjacent fraud risk (Carpenter, 2007). In the USA, Sarbanes-Oxley Act 2002 (SOX) requires the organization of an audit committee within the audited company, the adoption of an ethical code, the assurance and implementation of an internal functional control system, the organization and institutionalization of the internal audit leading to more effective measures to prevent and detect frauds (Robu et al, 2012). The CEOs of the largest audit firms acknowledge the importance of auditor detection of fraud (DiPiazza et al. 2006), and industry critics question the value of audits lacking a focus on fraud detection (Johnson 2010). Consequently, fraud detection is of great concern to the sustainability of the auditing profession (Advisory Committee on the Auditing Profession 2008).

According to the previous discussion regarding the auditor's role and influence on the prevention and detection of financial frauds, and as long as some of the PCAOB(2013) proposed indicators of audit quality are related to fraud matters, auditor performance toward fraud risk assessment can be viewed as an important direct measure of audit quality. Moreover, increased financial reporting scandals renewed the focus on fraud, resulting in comprehensive legislation and SEC rulemaking concerning corporate governance and internal controls. Due to the importance of fraud risk assessment in an audit, the PCAOB (2013) proposed audit quality indicators related included frequency, nature, and market impact of reported frauds. However, according to a comment made by The Accounting and Auditing Procedures Committee of the Pennsylvania Institute of Certified Public Accountants (PICPA) in 2015 on PCAOB proposed indicators, there difficulty in detecting all frauds by auditor and hence quantifying them. Thus, it is viewed that proper fraud risk assessment through brainstorming or inquires and responsive audit procedures could be a good indicator of quality.

Hammersley et al (2011a) suggest that identifying risk factors focused on the fraud area is critical to the development of high-quality audit plans, and thus to fraud detection. Auditors make a preliminary overall fraud risk assessment during planning based on fraud risk factors identified and fraud hypotheses generated. This risk assessment is updated after completing evidence evaluation based on test results. The preliminary risk assessment guides auditor decisions about whether changes to the audit program are necessary. Thus, this assessment is an important determinant of audit effectiveness. In spite of its importance, fraud tasks are considered both unstructured and occur in impoverished learning environments. (Hammersely, 2011b).

Despite the importance of fraud risk assessment as essential audit task in audit planning decisions, there is little empirical evidence regarding the impact of experience and direction and supervision as quality control elements on such audit task.

## **Hypotheses Development**

### *Experience and Fraud Risk Assessment*

Measurement of audit judgment performance is often difficult because there are no objective performance criteria for many audit tasks. But as long as different audit decision tasks are performed by auditors with differing levels of training and experience, the judgments of experienced auditors have been used as a substitute for other performance measures in determining firm policies and auditing standards (Libby and Frederick, 1990). Thus, to determine the validity of this criterion, more evidence is needed, regarding why experienced auditors can perform tasks that inexperienced auditors cannot. Moore (2009, p.2) stated that "*Knowledgeable, experienced, and objective persons can reach different conclusions in applying professional standards despite similar facts and circumstances*".

The psychology literature reports that training and experience improve calibration (e.g., Lichtenstein and Fischhoff, 1977) as cited by (Chung and Monroe, 2000). In fact, (Lichtenstein and Fischhoff, 1977) state that the more one knows, the better calibrated one is likely to be.

There are several reasons why audit experience affects the accuracy of an auditor's judgments. Experience develops an auditor's abilities to process information, make mental comparisons of alternative solutions and initiate subsequent actions (Gibbins, 1984). It could be argued that inexperienced auditors cannot develop these abilities in their first years of work. As a result of their auditing experience, auditors develop large and complex memory structures that form the storage of information from which they draw in decision-making (Libby, 1995) as cited by (Chung and Monroe, 2000). In addition, experience influences the selection and weighting of information cues (Bonner, 1990). An experienced auditor's knowledge structure enables him/her to identify the particular information cues that should be selected and appropriately weighted to form his/her judgments (Bonner, 1990). A consequence of this ability is higher judgment accuracy. Moreover, when a novice auditor performs an audit task, s/he may not have developed the relevant memory structures to adequately review and select the information relevant to the task on hand. In addition, s/he may not be able to analyze and integrate the information at a level that is beyond the mere surface features of the task (Scheonfeld and Hermann, 1982) as cited by (Chung and Monroe, 2000). This allows experienced auditors to make more accurate judgments.

According to Libby and Frederick (1990), as auditors gain experience, (1) their knowledge of the set of potential financial statement errors becomes more complete, (2) they learn error occurrence rates, and (3) they organize their knowledge of financial statement errors along different dimensions including their transaction cycle. These differences should (1) increase the probability that more experienced auditors will be able to detect the existence of potential errors because their possible causes are more accessible from memory, (2) increase the efficiency of the search pattern by allowing experienced auditors to examine more likely explanations first, and (3) raise experienced auditors' level of efficiency in evidence evaluation by permitting them to consider clusters of potential errors which have similar evidence profiles.

According to the previous discussion, it could be said that high level of experience can help auditors to perform the audit process effectively and efficiently. They will become for instance more familiar with errors or misstatements that occurs frequently and the incentives behind committing them, have the ability to appropriate assess the significance or materiality of certain risks involved due to continuous deal with them, and determine the adequate audit evidence and how such evidence could be utilized to serve more than one audit objective. They can achieve that for example through recalling information from the complex memory structures that they have developed during their many years of experience. This can reduce much of audit time and cost that less experienced auditors could spend in achieving the required tasks. However, the impact of difference of experience level needs to be investigated and examined in audit setting.

Regarding fraud risk assessment, Hammersley (2011b) viewed that the infrequent experience with fraud provides little opportunity for learning. Thus, as audit experience increases their opportunity to deal with fraud cases also increases and hence assess fraud risk more accurately. According to Hammersley (2011b) model, they expected that experience, ability, and epistemic motivation to influence auditors' knowledge in fraud tasks, just as the first two of these characteristics have been hypothesized to affect knowledge acquisition in the financial statement error identification literature (Bonner, 1991). Supporting such view is Bernardi (1994) who found that managers outperform seniors in a fraud detection case when they are exposed to an initial evaluation of client integrity and competence. On the other hand, Figueroa (2013) study found that experience does not have a significant impact on the assessment of fraud risk for a firm operating in different countries. Thus, there is a mixed evidence regarding the impact of experience on fraud risk assessment which requires more research investigation. Moreover, changes in the audit environment in the last ten to fifteen years may have led to increased opportunities for less experienced auditors to acquire the knowledge to perform different audit tasks. This is strongly supported by the recent research of Yen (2012). It is stated that "*pushing down*" of work is exacerbated by employee turnover and tight client deadlines, which result in more responsibility being assumed by lower-level staff auditors" (Yen, 2012, p.216). This issue strength the need for more examination of the experience element in such changing audit environment which could yield different results than those found in earlier years. In addition, those prior studies have been conducted in developed countries rather than developing ones. Different environments and cultures could yield different results. The previous discussion could lead to the first hypothesis as follows:

*H<sub>1</sub>: Experience has a significant impact on auditor performance toward fraud risk assessment.*

#### *Direction and Supervision and Fraud Risk Assessment*

One of the essential parts of managers and supervisors' job is providing critical feedback to their subordinates. Accordingly, a manager key skill was to be able to judge junior staff and adjust their behavior accordingly. It is important to be close to the team and know how everyone is performing. Supervising auditors devote a significant amount of time to overseeing and providing comments on the work of subordinate auditors to maintain the overall quality of the audit (Kornberger et. al., 2011).

Bonner and Walker (1994) believed that instructions can provide only declarative knowledge (i.e. knowledge of facts and definitions) and that procedural knowledge (i.e. rules or steps needed for

performing skilled tasks) must be acquired by compiling declarative knowledge through practice and feedback.

Additionally, individuals can acquire knowledge by doing tasks and receiving feedback after completing such task. Popular learning theories agree that some practice is necessary for the acquisition of procedural knowledge needed for skilled tasks. These theories also require that practice be followed by accurate, complete, and informative feedback for procedural knowledge to be acquired. Practice without feedback can decrease procedural knowledge for two reasons. First, due to experience cognitive overload, knowledge can be lost from working memory and never committed to long term memory. Unfortunately, the eliminated knowledge may be a relevant one. In addition, without feedback, people simply may infer and maintain in memory inaccurate procedural knowledge (Bonner and Walker, 1994).

Moreover, practice with outcome feedback does not produce procedural knowledge. However, feedback providing an explanation of the properties of the task combined with outcome feedback (explanatory feedback) generally promotes better acquisition of knowledge than outcome feedback alone (Balzer et al, 1989) as cited by (Bonner and Walker, 1994). Such explanation can be provided by supervisors to their subordinates through proper discussion and consultations as required by ISA 220 and ISQC 1 quality control standards.

Andiola (2014) views that the feedback provided by managers or supervisors to the audit staff during the audit engagement is considered a mechanism of informal performance feedback. He suggests the importance that feedback plays in the organization for both quality control and employee development. Despite such importance, there is limited audit research in this area. It is important to examine the impact of discussion and feedback provided by audit managers or supervisors on work related outcomes. This is specifically true as the auditing environment is unique in the feedback mechanisms available to the auditor and the operational environment auditors' work where day to day feedback could be provided (Andiola, 2014). Moreover, it is argued that young employees perceive feedback as valuable mechanism toward reducing uncertainty and responding quicker to their new role and environment (Morrison, 2002) as cited by Andiola (2014). Greller and Herold (1975) findings as cited by Andiola (2014) suggests that due to the complexities of the different audit tasks, auditors cannot rely on themselves to learn and improve; rather they could require feedback from supervisors to improve their performance and to develop their technical knowledge and skills.

In addition, ISA 220 emphasized that discussion among members of the engagement team allows less experienced team members to raise questions with more experienced team members so that appropriate communication can occur within the engagement team. Appropriate teamwork assist less experienced members of the engagement team to clearly understand the objectives of the assigned work .Osborn (1957) as cited by Carpenter (2007) suggested that communication among team members can result in performance improvements through simulation and synergy which allow teams that communicate to outperform those who do not communicate. These performance improvements are known as process gains in the psychology literature.

Despite the importance of direction and supervision (i.e. feedback and discussion among more and less experienced auditors), There is little empirical evidence regarding their role toward fraud risk assessment. Carpenter (2007) study showed that audit teams' fraud risk assessments after the brainstorming session are significantly higher than those assessments given by individual auditors on the team prior to the brainstorming session. Thus discussion could have a significant impact on auditor fraud risk assessment. On the other hand, while Carpenter (2007) reported that open discussion brainstorming generated higher quality fraud risk ideas than nominal brainstorming; findings from Hunton and Gold (2010) suggest the opposite. They find that nominal brainstorming is more effective than open discussion brainstorming. The nominal group, where each member sits alone and generates as many ideas as possible to generate collective set of unique ideas, assessed fraud risk and made changes to the nature and timing of substantive tests more effectively than open discussion groups, where interaction among members took place. Supporting such results is the study of Chen et al (2015). Chen et al (2015) compared the performance of nominal team against interacting team with different level of experienced auditors but via electronic brainstorming toward two different degree of complex tasks: fraud risk factors identification

and fraud hypotheses generation. They found that nominal teams generated high quality and larger number of relevant fraud risk factors and fraud hypotheses than interacting teams. The researchers provided evidence that the reason behind that is mainly social loafing, i.e. less experienced auditors make less effort in interacting teams because they know that their inputs are unidentifiable. Thus, there is mixed evidence regarding the role of direction and supervision auditor performance in fraud risk assessment. Moreover, the changing audit environment through the introduction of new technologies, standards, and highly inspection and litigation concerns require a renewal focus of such matter (Andiola, 2014). Direction and supervision could be considered a tool to overcome training and educational problems and less compliance with standards found in the Egyptian environment through extensive direction and supervision from managers and partners who are considered more knowledgeable and more aware of accounting and auditing standards. According to the previous discussion and the expected impact of direction and supervision as quality control element on auditor performance, the second hypothesis will be as follows:

*H<sub>2</sub>: Direction and Supervision inside audit firms have a significant impact on auditor performance toward fraud risk assessment.*

## **RESEARCH METHOD**

To test the research hypothesis, the researchers relied on an experimental method. The experiment employed a 2x2 design. The researchers manipulated two independent variables: one between subject factor and the other is within subject factor. The between subject factor was the audit experience. There were two levels of experience: less experienced auditors who had experience level from one to five years and more experienced who had experience level more than five years and have professional certificates. The outcomes are their performance in the fraud risk assessment task. The within subject factor was the pre versus post direction and supervision. "Pre" represents participants' initial judgments and assessments of the required task before any discussion or supervision from a number of audit managers who are highly experienced and qualified. "Post" represents the participants' judgments and assessments of the same task but after clarifications and discussions session between the participants and those professional managers. The participants' performance in each phase are compared to determine the impact of direction and supervision element.

### **Participants**

The participants were 50 less experienced auditors (with 1-5 years of experience) and 22 experienced auditors that have professional certificates (with an experience level of more than 5 years) working in the big 4 and other audit firms with international affiliations in Egypt. International audit firms specially the Big 4 are predicted to have higher quality audits due to greater in-house experience in administering such audits. Eight audit firms were represented in the sample. The largest number of participants from any single firm was twelve.

### **Task and Procedures**

The experimental task in this study involve reading background information about a company specialized in investment in securities companies and then making judgments related to the suggested auditors' performance measures. Such assessments and judgments were made twice through two phases. In the first phase the participants individually completed the task. They were not allowed to use reference materials or to confer with one another while completing this phase of the experiment. In the second phase, they completed it but after direction and supervision (i.e. discussion and brainstorming). The experiment was conducted in two separate meeting rooms setting in one of the audit firms with international affiliations. The first room included the experienced group while the other room involved the less experienced one. Each participant received a booklet containing an overview of the objective of the experiment, instructions and the experimental materials. Following a brief verbal introduction,

participants began by reading a set of instructions describing the case and the procedures to be followed during the experiment. The instructions included a brief description of one of the companies. The experimental material was developed after consulting an audit partner of one of audit firms with international affiliations as an expert in the field.

The company used in the experiment is one of the publicly listed companies. It is one of big audit firm's clients that have received qualified opinion on their financial statements. It has been established in 2009 according to law no.95 for year 1992 and according to the EFSA's approval. Its total long term assets at Dec 31 2013 is L.E 850 million Egyptian pounds (\$120 million approximately) and the net income before tax is 40 million (\$5.6 million). The management letter included some of the misstatements included in the company financial statement as at 31 December 2013.

Participants were provided with a list of some of the company financial statement misstatements (12 items) and participants were asked to assess regarding each misstatement the fraud risk using a five point Likert with 5 very high risk, and 1 very low risk. Following these questions, participants answered a post-experimental questionnaire, which asked for demographic information including years of audit experience and qualifications. The time specified for completing this experiment with its two phases is 1 hour and 30 minutes, each phase 45 minutes.

## **RESULTS AND DISCUSSION**

The data of each experiment has been analyzed using different types of tests including descriptive statistics, t- tests, and analysis of variance.

### **Quality Control Elements and Fraud Risk Assessment**

#### *Experience Effect and Fraud Risk Assessment*

Analysis of experience effects was done by comparing the experienced auditor-inexperienced auditor performance difference in the assigned task. Moreover, an expert benchmark was used to compare the responses of each group against such benchmark. The researcher analyzed the data related to the two groups (Experienced versus less experienced) in their assessment of the fraud risk for each presented misstatement discovered in the company's financial statements using both descriptive statistics and T-tests as shown in table 1.

**TABLE 1**  
**STATISTICAL ANALYSIS/ EXPERIENCE & FRAUD RISK ASSESSMENT (PRE DIRECTION & SUPERVISION)**

Financial Statement misstatement	Experienced Group n=22		Less Experienced Group n=50			Experienced versus less experienced	
	Descriptive statistics	One sample t-test (Experienced group versus expert benchmark)	Descriptive statistics	One sample t-test (Less experienced group versus expert benchmark)	t	Sig.(p)	
							Mean
1- The company did not physically count its fixed assets on dec.31.	2.91	.006	4.12	.452	-3.125	.004	
2- The company breach its fixed assets depreciation policy using percentages ranging from 12.5% to 25% instead of 10% to 20%	2.27	.000	3.32	.000	-3.438	.001	
3- Regarding the investments in subsidiaries the company recorded its share in owner's equity according to the net profit after tax	4.18	.463	4.04	.819	.461	.646	
4- Examining investments in associated companies, we discover that the company had an investment in a company as at 31/12/2013 & was recorded in such an	2.00	.002	3.48	.005	-4.828	.000	





According to table 1, firstly, it is shown that there is a significant difference between the experienced and less experienced group performance regarding their fraud risk assessment as the p value for most misstatements is less than 0.005, except for the third, ninth, and eleventh misstatements. The reason for such exceptions may be due to the fact that these misstatements are considered high material compared to the other misstatements & therefore no significant difference existed between the opinions of both less experienced/ experienced auditors. Regarding such result that in some misstatements (e.g. company recording its shares in owners` equity in investment in subsidiaries according to net profit before tax, obtaining bank confirmations, and recording its activity costs using percentage of general expenses without board of directors approval on such percentage) introduced in the management letter, there is no significant difference between experienced and less experienced auditors in their fraud risk assessment. Thus, it could be indicated those misstatement where experience had no significant impact are highly material and clear misstatements for both groups. More specifically, recording shares in owners` equity (investments account) according to net profit before tax is considered highly material if tax amount is high and this should be clear for auditors, experienced and less experienced. In addition, the investment and cost accounts affecting the net profit are among the significant accounts, known to all levels of auditors, that they could involve high risk (e.g. recording items and include them as costs while actually do not represent costs, a matter which could requires more analysis of the cost account. Moreover, obtaining bank confirmations is so important and well known procedure for all auditors as there could be some accounts for the company in the bank but is not recorded in the financial statements or there are some balances recorded in the financial statements but actually does not exist.

The researchers view that those type of misstatements where experience has no impact in fraud risk assessment could be highly material specially that not obtaining board of directors approval is an indicator of poor control environment of the client company which is a significant element of the internal control system of any company according to COSO framework and could negatively affect the fairness of financial statements. In addition, not taking into consideration the tax amount (where tax rate is high, about 25%) when recording shares in owners` equity from investments in subsidiaries are highly significant misstatements that could be clear to auditors even the less experienced ones. Moreover, obtaining bank confirmation for some balances is essential for the completeness and existence assertions and such matter should be clear to different levels of auditors.

Secondly, it could be noticed from the mean responses of both groups in table 1 that for most misstatements experienced auditors assign lower fraud risk toward most misstatements than the less experienced auditors. This could be due to that the less experienced auditors, due to their little experience, could be more cautious in their risk assessment but on the other hand this could unnecessarily increase audit time and costs as the higher risk assessment, the more audit procedures need to be performed. However, the more experienced auditors take into consideration the materiality levels concept. The less experienced auditors evaluate materiality level at 100%. It may be also not yet clear for less experienced auditors that fraud detection is not the primary objective of auditors. The more experienced auditors are expected to take into consideration the six management assertions, not only one. Accordingly, they view that for example if existence assertion is not satisfied for a certain transaction while the other five assertions (accuracy, completeness, classification, cutoff, rights and obligations) have been satisfied this doesn`t necessarily mean that fraud exist. Mala and Chanad (2014) argued that it is better for inexperienced auditors to be more risk averse or conservative in their audit risk judgments for audit effectiveness. This will enable them to root out potentially critical problems that can be reviewed later by more experienced auditors.

Thirdly, as overall, the average responses of the more experienced group for all misstatements is significantly different from the average responses of the less experienced group with p value=0.000. This is supported by the descriptive statistics as it shows for example the mean responses of the fraud risk assessment related to the first misstatement of the experienced group is 2.91, while for the less experienced is 4.21. Thus, the experienced group view that such misstatement(the company did not physically examine its fixed assets on dec.31 2013) has an average risk , while the less experienced one assess it as having a risk between high and very high. For further analysis, the ANOVA (table 4) was

conducted with audit experience as between subject factor. It shows that there is significant difference in both groups performance as  $p= 0.000$ ,  $F=41.716$ . This means that the degree of variance in responses between both groups is not equal. In other words, there is significant difference in the homogeneity between both groups' responses.

On the other side, in comparing the responses of the expert benchmark with each group, it could be noticed that the more experienced outperformed the less experienced auditors. It is shown that there is no significant difference between the expert benchmark and the experienced group for 7 misstatements (misstatement no.3, 5, 7, 8, 9, 10, 12) out of 12. However, there is no significant difference between the expert benchmark and the less experienced group for only three misstatements out of 12. This could indicate the experienced group average responses is much closer to the expert benchmark than the less experienced group.

These results could suggest that fraud risk assessment is among the complex tasks that auditors could face and that more experienced auditors deal with them on regular basis compared to the less experienced ones. Moreover, fraud risk assessment is mainly assigned in the planning phase to managers and partners rather than less experienced auditors. Juniors are still in their first phases of learning and they haven't yet dealt extensively with such matters. Thus, assessing fraud risk needs more experience and frequent fraud situations to deal with it. Moreover, the researchers view that the less experienced auditors are not in a position that allows them to accurately assess fraud risk due to their little experience with fraud cases and its rarity during their entire career. However, the more experienced auditors believe that not every fraud risk will lead to material misstatements in the client financial statements. In addition, the lack of training in relation to proper understanding of the concepts related to fraud risk assessment could yield such result.

This is supported by Hammersley (2011) view that the infrequent experience with fraud provides little opportunity for learning. Thus, as audit experience increases their opportunity to deal with fraud cases also increases and hence assess fraud risk more accurately.

Thus, the results indicated that the experience element has a significant impact on auditors' fraud risk assessment. These results are not consistent with Figueroa (2013) study who found that experience does not have a significant impact on the assessment of fraud risk for a firm operating in different countries. Thus, the first hypothesis could be accepted.

#### *Direction and Supervision Effect and Fraud Risk Assessment*

While experience is a significant factor in the individual auditor's effectiveness at assessing the risk of fraud, the interaction with other members of the team in the discussion session provides an opportunity for improvements in auditors' fraud risk assessments (Carpenter, 2007). In analyzing the data of the first experiment (phase 2) relating to whether fraud risk assessment is significantly improved after direction and supervision within both groups (the less experienced and experienced groups) or not, the following results were obtained as shown in table 2.

It is shown that there is also no significant difference between the experienced and less experienced groups after the direction and supervision session as the P value (T-test) for most misstatements is less than 0.005. This indicates that the discussion session did not significantly improve the less experienced group performance to make it close to that of the experienced one. Moreover, the paired sample tests that compare each group performance pre and post direction and supervision (table 3) shows that overall there is no significant difference in either experienced or less experienced auditors performance pre versus post direction and supervision regarding the fraud risk assessment task. For further analysis, the ANOVA test (table 4) shows that there is no significant difference pre versus post direction and supervision as the  $p=0.576$ ,  $F=0.314$ . This analysis supports the descriptive analysis and the t-tests. A possible interpretation for such results may be due to time limit allowed for such direction and supervision where in real life there is no limit for time given by seniors to direct their subordinates. This may be one of the limitations of conducting an experimental test for assessing this element needed to improve the quality of audit

These results could indicate that the discussion session may be not enough to affect such performance. The participants may be confident of their prior assessment and the discussion did not provide new issues toward the misstatements presented and hence did not affect their initial assessment.

Moreover, the preliminary knowledge possessed by less experienced auditors in fraud risk and their less involvement in such tasks didn't help them to grasp the elements of supervision provided by partners. Prior research suggests that two important factors that result in process losses for brainstorming teams are production blocking and social loafing. Production blocking occurs because only one member can communicate at a time and because members are talking and listening, while waiting to contribute an idea that may be lost before they take their turn (Diehl and Stroebe 1987) as cited by Carpenter (2007). Free riding or social loafing is the reduction of effort of some of the team's members even when they are qualified to contribute fully (Diehl and Stroebe 1987) as cited by Carpenter (2007). However, the results of the current study are not in line with Carpenter (2007) study that found that audit teams' fraud risk assessments after the brainstorming session are significantly higher than those assessments given by individual auditors on the team prior to the brainstorming session. Moreover, the results did not support Statement on Auditing Standards (SAS) No. 99, *Consideration of Fraud in a Financial Statement Audit*, which contends that brainstorming will help auditors detect fraud, and the standard requires auditors to brainstorm about the possibilities of fraud on all audits (AICPA 2002).

**TABLE 2**  
**STATISTICAL ANALYSIS/ DIRECTION AND SUPERVISION & FRAUD RISK ASSESSMENT**  
**(POST DIRECTION & SUPERVISION)**

	Experienced Group n=22		Less Experienced Group n=50			Experienced versus less experienced t-test	
	Descriptive statistics		Descriptive statistics		One sample t-test (Less experienced group versus expert benchmark)		
	Mean	SD (Standard deviation)	Mean	SD		P	t
Financial Statement misstatement							
1- The company did not physically examined its fixed assets on dec.31	2.55	1.335	4.08	1.307	.667	-4.521	.000
2- The company breach its fixed assets depreciation policy using percentages ranging from 12.5% to 25% instead of 10% to 20%	1.91	.921	3.20	1.178	.000	-5.013	.000
3- Regarding the investments in subsidiary, the company recorded its share in owner's equity according to the net profit after tax	4.82	.588	4.20	1.143	.222	3.021	.004
4- Examining investments in associated companies, we discover that the company had an investment in a company as at 31/12/2013 & was recorded in such an	2.18	1.296	3.28	1.386	.159	-3.242	.002





**TABLE 3**  
**PAIRED SAMPLE TESTS (PRE VERSUS POST DIRECTION & SUPERVISION)**

Financial Statement Misstatements	Experienced Group Sig.(p)	Less Experienced Group Sig.(p)
1- The company did not physically examine its fixed assets on dec.31	.344	.771
2- The company breach its fixed assets depreciation policy using percentages ranging from 12.5% to 25% instead of 10% to 20%	.073	.420
3- Regarding the investments in subsidiaries, the company recorded its share in owner`s equity according to the net profit after tax	.003	.272
4- Examining investments in associated companies, we discover that the company had an investment in a company as at 31/12/2013 & was recorded in such an account even though the company had more than 50% of ownership in that company.	.257	.192
5- While auditing the receivables account, there was an amount expensed for decoration improvements in head office.	1.000	.584
6- Examining debtors and other debit accounts we discovered that there are non-moving balances as at 31/12/2013 without management proper action.	.383	.364
7- Examining debtor and other debit accounts we discovered that the company paid an amount related with acquisition of a land and which EFSA objected to the recording of it in the books due to improper legal procedures for acquisition	.540	.510
8- Examining the debtors and other debt balances, we discovered it contained an account "Expenses for infrastructure" of the company as at 31 December 2013 representing expenses and allowances for a trip to India which did not result in a success project.	.056	.552
9- The company did not provide the auditor with confirmations on certain bank account balances whether deposits or current accounts	.056	1.000
10- The company wrote off debts without board of directors' approval or authorization.	.427	.699
11- they recorded their activity costs using a basis of 20% of general and administrative expenses without informing auditors about board of directors approvals on such % or the basis for determining it	.162	.322
12- While auditing the general and administrative expenses, studies and advertising expense account, it was found that the company paid L.E 250,000 for the restructuring study although the study has not been yet completed till the time the financial statements have been prepared.	.056	.029

**TABLE 4**  
**ANALYSIS OF VARIANCE - FRAUD RISK ASSESSMENT**

	Sum of squares	Mean Square	F	P
Between Subjects				
Audit Experience	39.773	39.773	41.716	.000
Error	135.386	.953		
Within Subjects				
Pre versus Post direction &sup	.300	.300	.314	.576
Error	133.913	.957		

To summarize, it is shown that the experiment yield results which indicate that experience element has a significant impact on auditors` fraud risk assessment but the direction and supervision elements have no such impact. Thus, the first hypothesis could be accepted while the second is rejected.

## CONCLUSION

This paper investigates if auditor performance toward fraud risk assessment can be relied upon as an indicator for the effective application of some of the quality control elements set by ISA 220, mainly engagement team experience and direction and supervision elements. The analysis relied on an experimental task with different level of auditors working in large CPA firms. The results indicate that proper assignment of experienced auditors has a significant impact on their performance toward fraud risk assessment. This could be attributed to the lack of knowledge possessed by less experienced auditors and training in relation to the proper understanding of concepts related to assessing fraud risk. The study also confirmed that less experienced auditors were more conservative in their fraud risk assessment compared to more experienced auditors who take into consideration the materiality concept. This is due to the less experienced auditors` infrequent experience and little knowledge about fraud cases. Thus, auditor performance toward fraud risk assessment could be relied upon as indicators for the proper assignment of experienced auditors.

The results also reveal that proper direction and supervision inside audit firms have no significant impact on less experienced auditors` performance toward fraud risk assessment. This is due to the fact that their preliminary knowledge and their less involvement in fraud risk assessment did not help them to grasp the elements of supervision provided. Thus, auditor performance toward assessing fraud risk could not be relied upon as an indicator that proper direction and supervision had been undertaken inside audit firms.

Based upon all the above findings, the researchers call for the practical application of the examined auditor performance measure, i.e. fraud risk assessment, to serve a quality control indicator for the proper assignment of engagement team personnel inside audit firms and to help quality control inspection units in performing their monitoring role. Proper training to less experienced auditors should be provided in tasks related to fraud risk assessment. Moreover, more research is needed to study and analyze quantitative measures of audit quality to provide more comprehensive and representative set of measures taking into consideration the other ISA 220 quality control elements. These suggestions support the PCAOB (2013) project concerning the development of audit quality indicators. The study has a number of limitations. First, the culture, economic, and educational environment in Egypt may affect the results of this study. Second, the experimental task is based on management letter of only one company. The results are based on an experiment with a limited number of auditors selected from audit firms with international

affiliation. Finally, the proposed audit quality indicator, i.e. fraud risk assessment, could be more understandable and useful to auditors, audit committee, and quality inspection units as they are more involved and have access to such matters rather than financial statement users.

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