



## Auditor's Perceptions of CEOs Overconfidence in Egypt: A Quasi-Experimental Study

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### **Abstract**

**Purpose:** This study aims to explore auditor's perceptions of CEOs overconfidence in Egypt as one of the emerging countries.

**Design/methodology/approach:** A quasi-experimental study is used on a sample comprises of 101 practicing auditors at public accounting firms in Egypt to assess (i) CEO overconfidence in a case scenario, (ii) the quality of earnings that would be provided by this overconfident CEO, and (iii) how overconfident CEO would be considered when they are assessing fraud risk, audit risk, audit effort and audit fees.

**Findings:** The results suggest that not all the auditors in the sample were able to discover the same degree of overconfidence personal traits in a case scenario, and it was done by the sense, and they generally agree that overconfident CEO are more likely to provide lower earnings quality. Accordingly, they raise their assessment for audit fees as a result of an increase in fraud risk, audit risk, and audit effort.

**Practical implications:** This study has significant implications for accounting and auditing professionals, market participants and regulators; where auditors should consider the overconfidence of the CEO during the audit process, market participants should consider managerial overconfidence when they are making investment decisions. Moreover, this study highlights the gap between auditing standards and the professional practice; which requires regulators to consider personal overconfidence traits as an indicator of financial reporting risk.

**Originality/value:** This study helps in filling a gap in the literature; where auditor's perceptions of CEOs overconfidence have not been fully investigated in emerging economies.

## **1- Introduction**

Recent empirical accounting research has examined CEO's psychological biased that stems from overconfidence; this research has confirmed that managerial overconfidence increases the likelihood of the accounting fraud (e.g. Schrand and Zechman 2012; Hsieh et al. 2014; Yu 2014; Dichev et al. 2016). Overconfidence has negative implications on corporate policies in general, and on the accounting policies particularly, where it increases the probability that CEOs will engage in decisions that destroy firm value (Schrand and Zechman 2012).

Managerial Overconfidence has gained more attention in behavioral accounting research to explain some "puzzles" in accounting research, especially, the relationship between CEOs overconfidence and accounting manipulation; this relationship has been examined intensively in the literature, in order to understand manipulation reasons that have not been fully studied or explained by traditional accounting theories. Recent financial crises have raised questions about the implications of overconfidence personal traits on the ethical climate in corporations (Park and Chung 2017). Prior research has assumed that overconfidence might benefit shareholders, while high levels might not (Banerjee et al. 2015). Some research suggests that CEOs overconfidence could create and maximize value through more risk-taking and greater inspection (Goel and Thakor 2008; Gervais et al. 2011). Some studies confirm that overconfident CEOs tend to pursue innovation, they spend more on innovation, and they achieve innovative success more than non-overconfident CEOs (Hirshleifer et al. 2012; Liang and Mo 2017).

However, the theory posits that overconfidence impairs moral awareness leading to unethical management (McManus 2016; Park and Chung 2017). Heaton (2002) argues that overconfident CEOs tend to invest in negative net present value (NPV) projects even when they are loyal to shareholders, as results of psychological biases arising from over-optimism. On the other hand, empirical research has confirmed that overconfident CEOs may distort investment decisions (Hayward and Hambrick 1997; Simon and Houghton 2003; Malmendier and Tate 2005; 2008; Doukas and Petmezas 2007; Park and Chung 2017). Further, they tend to engage in risky financial decisions (Malmendier et al. 2011; Ben-David et al. 2013). These highly disruptive decisions could deteriorate corporate performance (Hirshleifer et al. 2012; Eichholtz and Yonder 2015; Kim et al. 2016). Consequently,

overconfident CEOs tend to engage in opportunistic behaviors (e.g. aggressive earnings management) to conceal the bad performance associated with their distorted policies (Christie and Zimmerman 1994; Di Meo 2014; Linhares et al. 2018).

According to the upper echelons theory, when discretion is required, overconfidence is one of the top managers' characteristics that would have important effects (Hambrick and Mason 1984). Consequently, the accounting literature has examined the implications of CEOs overconfidence when issuing earnings forecasts, the results show that overconfident CEOs tend to issue more optimistic forecasts about future performance that they will subsequently miss, failing to meet these over-optimistic forecasts will lead them to manipulate earnings (Hribar and Yang 2010). Accordingly, overconfident CEOs use less conservative accounting, and they are more likely to delay loss recognition (Ahmed and Duellman 2013; Hwang et al. 2015). In addition, they engage in earnings management more than non-overconfident CEOs (Hsieh et al. 2014). This would increase the probability of slippery slope to fraud (Schrand and Zechman 2012) and increase the probability of accounting restatements (Presley and Abbott 2013).

Dichev et al. (2016) note that 50 percent of surveyed CFOs in the U.S agree that CEOs overconfidence is one of the reasons for misrepresenting earnings. These results encouraged auditing research to start examining auditors' reactions to managerial overconfidence, for example, Ji and Lee (2015); Kim (2017) confirms that auditors adversely value overconfidence when they issue going concern opinion. Yang et al. (2013); Ebrahimpour and Saroukklai (2016); Mitra et al. (2019) confirm that audit fees increased in the corporations with overconfident CEOs. This study will extend this literature by exploring auditor's perceptions of CEOs overconfidence in Egypt as one of the emerging countries.

The theoretical evidence provided by Goel and Thakor (2008) show that overconfident CEOs provide lower earnings quality to stakeholders, as they underinvest in information acquisition. This suggests that overconfidence should be considered by auditors during the audit process. This quasi-experimental study aims to examine whether auditors in Egypt can (i) discover personal traits exhibited by CEOs overconfidence, and (ii) link these observed personal traits to earnings quality and audit decisions. If so, the study would provide

empirical evidence about auditor's ability to realize an unethical behavior associated with overconfidence in the emerging markets.

The contributions of this research as it is the first study in emerging markets that examines auditor's perceptions of CEOs overconfidence, especially, the auditor's response to CEO overconfidence is possibly culturally influenced and, thus, it becomes important to test US findings in different cultures. It also could strengthen the research propositions for incorporating managerial personal traits in judgment and decision making in auditing to improve audit quality (e.g., Johnson et al. 2013). Although, the potential significance of CEOs overconfidence, little research regarding the auditor's perceptions of overconfidence has been conducted in emerging countries to date. Lack of research in this area stem from difficulty in operationalizing and observing overconfidence in accounting research. Consequently, more evidence could enhance research trend that requires auditors to consider CEO personal traits.

The importance of this study stems from investigating whether auditors in emerging countries perceive CEOs overconfidence, and how they realize it within some audit decisions. The research fills the gap that auditor's perceptions of overconfidence have not been fully studied in an emerging economy. Concentrated literature in the U.S limits the ability to generalize the results to emerging economies. Moreover, the results reveal the gap between auditing standards and the professional practice. This study also has many implications for financial market participants and regulators.

Consistent with the literature in business, finance, and accounting that has linked CEOs overconfidence with dysfunctional decision making and unethical accounting practices, the results suggest that auditor in Egypt awareness of CEOs overconfidence as an indicator for unethical behavior, consequently existing overconfident CEOs in corporations leads to increased audit fees as result of increased fraud risk, audit risk, and audit effort.

The paper is organized as follows; Section 2: Literature review and developing a research hypothesis. Section 3: Auditing in Egypt. Section 4: research design. Section 5: Data analysis and results. Section 6: Discussion, conclusion and future research.

## **2. Literature Review and Developing Research Hypothesis:**

### **2.1. CEOs Overconfidence:**

Overconfidence was used for the first time by Roll (1986), who confirmed that hubristic leadership (i.e., overconfident CEOs) could explain why corporations engage in distorted investment decisions such as non-value maximizing mergers and acquisitions, as they tend to overpayment for target corporations.

Overconfidence means that "the tendency of individuals to think that they are better than they are in terms of characteristics such as ability, judgment, or prospects for successful life outcomes" (Hirshleifer et al. 2012, p. 1458). Therefore, overconfidence leads to a judgmental error, because overconfident individuals tend to exaggerate their own accuracy. Accordingly, overconfidence is a "positive difference between confidence and accuracy" (Schaefer et al. 2004, p. 473). Moreover, overconfidence triggered by a self-attribution bias, where individuals credit themselves for past good performance but blame others for failure (Palomino and Sadrieh 2011).

Consequently, Fellner and Krügel (2012) argue that there are various kinds of overconfidence. They differentiate between "optimism" (where managers are more optimistic about societal risks, "judgmental overconfidence" (i.e., where managers overestimate their judgments precision), and "self-enhancement biases" (i.e., where managers have a positive self-illusion and the illusion of control.

Capps et al. (2016) show that overconfidence can be classified as follows. Firstly, termed "managerial overestimation", occurs when managers overestimate their own ability and performance (Brown and Sarma 2006; Baker et al. 2007). Secondly, labeled "managerial overplacement" where the manager believes that they are better than others (Moore and Healy 2008). The third type called managerial "overprecision", it occurs where managers believe that they are more accurate about their own beliefs than others (Tomak2013; Shu et al. 2013).

Theoretical evidence suggests that overconfidence may be a common trait among CEOs that influences different policies in the corporation. Goel and Thakor (2008) confirm that overconfident managers who are risk-taking will be fired. Otherwise, they will end up at the top, while non-overconfident managers moved towards the middle. Yu (2014) confirms that

the board of directors is more likely to hire overconfident CEOs because they spend more prolific effort under lower compensation, which increases the firm value.

Some research has assumed a positive implication of overconfidence on innovation, as it increases CEOs' ability to exploit available innovative growth opportunities. For example, Galasso and Simcoe (2011) and Hirshleifer et al. (2012) confirm that overconfident CEOs spend more money on R&D, they achieve greater innovation success with their R&D expenditures. Moreover, they are more likely to have patents and citations per unit of R&D expenditures. Liang and Mo (2017) expect that overconfident CEOs consider shareholders' interest and are more loyal to the shareholders. In addition, they are more likely to improve firm value through achieving the high returns of investments in R&D, and results were consistent with these expectations.

However, the theory posits that moral awareness is impaired by overconfidence, because overconfident managers may ignore external factors that drive such awareness (McManus 2016). Some empirical research has connected overconfidence with irrational risk-taking, for example, Hayward and Hambrick (1997) confirm that overconfident CEOs engage in worst investment decisions, such as mergers and acquisitions; Heaton (2002) posits that overconfident CEOs might invest in negative NPV projects due to systematic overvaluation of projects returns. Consequently, overconfidence increases the likelihood of investment distortion (Simon and Houghton 2003; Malmendier and Tate 2005; 2008; Brown and Sarma 2006), because they are over-optimistic about available investment opportunities, underestimate the investment risks, and overestimate the investments returns (Wei et al. 2011).

Furthermore, the negative NPV projects misperceived as value-creating by overconfident CEOs and they also may ignore observed negative feedback related to these projects (Kim et al. 2016; Park and Chung 2017). Moreover, corporations with overconfident CEOs might prefer risky debt (Malmendier et al. 2011; Ben-David et al. 2013). These irrational policies might impair firm value, as Hirshleifer et al. (2012) confirm that CEO overconfidence increases stock return volatility, consistent with their investment in risky projects. Kim et al. (2016) confirm that the risk of stock price crashes increased in corporations with overconfident CEOs.

## **2.2 Auditors perception for CEOs overconfidence:**

There are several reasons to believe that CEOs' overconfidence will affect the accounting and auditing profession. Firstly, the detrimental investment decisions (e.g. overinvestment and unsuccessful acquisitions) that are taken by overconfident managers would be reflected in terms of lower earnings quality and a higher financial reporting risk. The empirical literature has confirmed that managers who follow more aggressive investment policies tend to engage in earnings management to hide bad outcomes from these policies (Christie and Zimmerman 1994; Di Meo 2014; Linhares et al. 2018).

Secondly, overconfidence has a direct effect on accounting decision-making. Therefore, it is logical to expect that overconfidence would lead to a decrease in financial reporting quality, especially when it is broadly recognized that numerous decisions that are related to financial reporting are hard to accommodate with completely rational behavior. Moreover, the upper echelons theory confirms that executives' values and cognitive bias would be reflected in corporations' strategies and outcomes (Hambrick and Mason 1984). Managerial overconfidence is one of the cognitive biases that has been examined under upper echelons research. Accordingly, investigating financial reporting quality in the presence of overconfident managers has gotten expanding consideration in recent years.

Research has examined the relation between overconfidence and imperfect decision-making; for instance, Gervais et al. (2011) state that overconfidence leads to bias in information processing, as well as errors in judgment, consequently, overconfident CEOs are risk-taking and less conservative. Further, Libby and Rennekamp (2012) confirm that surveyed financial managers think that other managers are more likely to exaggerate their positive contribution to corporate performance and both are over-optimistic about corporate performance and overestimate their ability to predict the future performance. Hilary and Hsu (2011) argue that overconfidence is a cognitive bias that affects the managerial credibility, and they found that overconfident CEOs issue less accurate earnings forecasts. These results are consistent with the findings of Hribar and Yang (2010; 2016) who confirm that overconfident CEOs issue more optimistic forecasts than they fail to achieve these forecasts.

Accordingly, the recent accounting research has examined the relationship between overconfidence and earnings quality in the U.S, Hribar and Yang (2010) confirm that

overconfident CEOs tend to engage in earnings management to achieve optimistic forecasts that they fail to achieve, by the time they would start down slippery slope to misstatements intentionally (Schrand and Zechman 2012). Moreover, overconfident CEOs feel less constrained by law, so that they tend to engage in aggressive earnings management, to achieve analysts' forecasts benchmark (Hsieh et al. 2014). This would increase the likelihood of restating the financial statement (Presley and Abbott 2013).

Ahmed and Duellman (2013) and Hwang et al. (2015) confirm that overconfident CEOs are more likely to delay loss recognition of poor performance NPV projects. Moreover, they tend to undervalue liabilities and overvalue assets. Otherwise, Dichev et al. (2016) find that about 50 percent of surveyed CFOs in the U.S agree that CEOs overconfidence is one motivation for earnings manipulation. However, Benaei and Nahandi (2014) fail to find a meaningful relation between CEOs overconfidence and financial reporting quality when they analyze a sample of corporations listed in the Tehran Stock Exchange.

In addition, the theory of overconfidence shows that overconfident CEOs provide lower earnings quality to shareholders and the board, as they underinvest in information production (Goel and Thakor 2008). Therefore, literature has started examining auditors' reactions to CEOs overconfidence in the U.S. Yang et al. (2013) confirm a positive relationship between audit fees and CEO overconfidence and this suggests that auditors increase the risk premium or exert more effort in corporations with overconfident CEOs. Duellman et al. (2015) confirm a negative relation between audit fees and CEO overconfidence, as they purchase lower audit quality, pay lower fees, and they tend to use a non-specialist auditor. This negative relation is moderated by a strong audit committee, and this suggests that strong audit committee constrains the negative implications of overconfidence on audit fees.

Mitra et al. (2019) confirm a positive relationship between audit fees and CEO overconfidence, and this relation increases as governance increases, which suggests that good corporate governance demands a higher audit quality to mitigate the negative implications of overconfidence on financial reporting risk. Ebrahimpour and Sarouklai (2016) confirm a positive relationship between audit fees and CEOs overconfidence depending on a sample of corporations listed on the Tehran Stock Exchange.

Moreover, overconfident CEOs are adversely valued by auditors in the U.S financially distressed corporations. Thus, they tend to issue a first-time going-concern modified audit opinion (Ji and Lee 2015). Moreover, auditors are much more likely to be dismissed after the issuance of this opinion (Kim 2017).

The previous results confirm that overconfident CEOs provide lower information quality compared to non-overconfident CEOs, which would increase financial reporting risk. Therefore, auditors should consider different implications that are triggered by a corporation's CEO overconfidence; the substantive testing should be increased to keep audit risk under the desired level for corporations with overconfident CEOs. Besides, auditors are required to consider ethical climate and "tone at the top" when they are assessing a corporation's financial reporting risk (Johnson et al. 2013). Accordingly, the research hypotheses are:

**H1:** Auditors will perceive the negative relation between CEO overconfidence and earnings quality.

**H2:** Auditors will raise fraud risk, and audit risk, which requires an increase in audit effort and audit fees.

### **3. Auditing in Egypt:**

Egypt is one of the emerging countries. It is one of the largest economies in the Middle East, and it has one of the oldest stock exchanges dating back to 1882. In the 1950s the Egyptian Stock Exchange (ESG) has grown up to be one of the most active markets in the world. By the late 1950s and early 1960s, various economic sectors in Egypt have been nationalized, and this led to a socialist era. Therefore, the role of the ESG fell step by step until it became an inactive market for 30 years. In the mid-1970s, the Egyptian government decided to liberalize the national economy, which called "open door policy", but this policy did not achieve a real revolution in the accounting and auditing profession until the early 1990s (Dahawy et al. 2011).

By the early 1990s the Egyptian government has decided to adopt economic liberalization policies to create a free market economy. This required privatization program and the ESG were reactivated in 1995. This mutation posed many challenges for the government, private sector organizations, and the accounting profession. The aims were increasing the private

sector role in the economy, and this required some developments for accounting systems to improve decision-making, increase the ability to attract investments, motivate economic development through enhanced competition and increase foreign investors confidence in the Egyptian capital market, for example, accounting and auditing standards and several legislative amendments have been issued (UNCTD 2008).

### **3.1 Egyptian Legal Framework for Accounting and Auditing:**

The auditing profession had started in Egypt in 1942 under Law No. 52, when the State Audit Bureau (SAB) was established to review revenues, expenditures and the public sector. Later in 1946, the Egyptian Society of Accountants and Auditors (ESAA) has been established, which has an important role in the accounting profession and in regulating auditing for private corporations. In 1951 Accounting Practice Law No. 133 was issued to govern the accounting profession, and under this law, auditors should not perform any tests before registering in the accountants' registry (Samaha and Hegazy 2010).

In 1981, Companies Act No.159 was issued, and its amendments in 1988 require all listed corporations to prepare audited financial statements annually, these statements should be prepared within two months after year-end. Under this act, external audits are required to be carried out in accordance with the Accounting Practice Law No. 133 which was issued in 1951 (Wahdan et al. 2005). In 1988, Central Auditing Organization (CAO) Act No. 144 was issued to be responsible for auditing governmental units, public sector organizations, and corporations in which state ownership is not less than 25% (UNCTAD 2008).

In 1992 Capital Market Law N. 95 was issued and its amendments in 1997 require all corporations listed in ESG to prepare financial statements in accordance with Egyptian Accounting Standards (EAS) and in case of absence of EAS, the International Accounting Standards (IAS) should be applied (Anis 2014). In 2003, The Banking Act No. 88 was issued, and it requires all banks to apply accounting and auditing guidelines set by the Central Bank of Egypt. Banks report under EAS as the Central Bank has not yet released any guidance on reporting for the banking sector (UNCTAD 2008).

### **3.2 Audit quality in Egypt:**

There is no an ethical code of conduct to govern the auditing profession in Egypt, and Constitution of Accounting and Auditing Profession issued in 1958, and Syndicate of Law No.

40 issued in 1972 highlight some ethical considerations, but some accountants and auditors ignore this ethics (Wahdan et al. 2005). In addition, the ESAA does not have authority to grant auditors a license for public practice and does not issue accounting or auditing standards to guide public accountants. It also does not test whether members comply with international or national ethical code of conduct. Hence, there are no appropriate procedures to prevent or detect fraud and corruption (Samaha and Hegazy 2010).

There are many factors which lead to lower audit quality in Egypt such as; the required apprenticeship is inappropriate, insufficiency of accounting and auditing education, lack of experience and expertise among auditors, lack of professional ethics. Also, most corporations pay more attention to tax minimisation than the application of accounting principles. Sometimes, auditors are being invited to attend the regular meetings of Board of Directors, and they receive compensation for attending these meetings which will affect negatively on auditor's report fairness (Wahdan et al. 2005).

Moreover, it can be argued that the provision of high-quality audit services is often driven by litigation risk. Accordingly, increasing the legal liability of the auditors force them to comply with the auditing and accounting standards as well as force auditors not to follow the management's desire if there is a conflict or dispute over the application of these standards.

The legal environment may affect audit quality in Egypt. Almost no lawsuit has been filed against audit firms in the past. Law enforcement is weaker in Egypt than in the developed countries. Therefore, there are no real incentives that force auditors to maintain audit quality (Anis 2014). Hence, it is necessary to review laws and regulations that regulate the auditor's liability. Legislative amendments should provide heavier sanctions on auditors, and these legislative amendments should be activated. When comparing between sanctions in Egyptian laws and sanctions in Sarbanes-Oxley Act 2002 regarding the area of investors protection, it can be seen that the U.S law provides heavier sanctions and auditors may face a prison sentence up to 20 years or a fine up to five million dollars. On the contrary, auditors in Egyptian laws may face a prison sentence ranging from two to five years or a fine up to one hundred thousand pounds.

### **3.3 Egypt Evidence Importance:**

Empirical evidence about auditors' perceptions of CEO overconfidence is concentrated in the U.S. where the auditing system completely different from auditing system in Egypt. There are significant differences between auditing systems in U. S. and Egypt where the U.S. auditing system is more disciplined and organized compared to Egyptian auditing system. The litigation risk is very high in the U.S. while is very low in Egypt. Moreover, quality control systems in audit firms is regulated in the U.S. while it is not well-regulated in Egypt and continuing professional education is mandatory in the U.S., but it is not mandatory in Egypt. Therefore, most professional accountants and auditors are suffering from a lack of professional ethics, proper training, and knowledge (Wahdan et al. 2005).

The reality of the audit profession in Egypt makes a reached results more meaningful, especially, if the auditors considering the negative implications of overconfidence. This will raise the level of consensus between auditors around the world which enhances the calls for incorporating CEO overconfidence personal traits in auditing decisions which require a radical change in auditing standards.

## **4. Research Design:**

### **4.1 Participants, and Data Collection:**

Depending on a case scenario that has been developed for an overconfident CEO in an industrial company that was suffering from the downfall in sales because of competitive circumstances and deflation in Egypt. The case scenario was pilot tested by five Academics who are interested in managerial overconfidence, resulting in minor modifications to the wording of the case scenario.

The data were collected from 101 auditors and the participants were assigned in a quasi-experimental study from several Egyptian public accounting firms randomly. The questionnaire responses have been gathered by hand and mail. Participants of the study cover different experience levels; table (1) shows all personal traits for all participants.

Table (1): Characteristics of participant

		No.	%
<b>Age (years)</b>	<b>&lt; 30</b>	57	56.4%
	<b>30-39</b>	25	24.8%
	<b>40-50</b>	13	12.9%
	<b>&gt; 50</b>	6	5.9%
		<b>101</b>	<b>100%</b>
<b>Experience (years)</b>	<b>&lt; 5</b>	48	47.5%
	<b>5-10</b>	22	21.8%
	<b>11-15</b>	14	13.9%
	<b>16-20</b>	6	5.9%
	<b>&gt; 20</b>	11	10.9%
	<b>101</b>	<b>100%</b>	
<b>Position</b>	<b>Staff</b>	27	26.7%
	<b>Senior</b>	43	42.6%
	<b>Manager</b>	14	13.9%
	<b>Partner</b>	17	16.8%
	<b>101</b>	<b>100%</b>	
<b>Qualifications</b>	<b>Bachelor</b>	76	75.2%
	<b>Academic Diploma</b>	21	20.8%
	<b>MSc</b>	4	4%
	<b>101</b>	<b>100%</b>	
<b>Big4 Vs Non-Big4</b>	<b>Big4</b>	38	37.6%
	<b>Non Big4</b>	63	62.4%
	<b>101</b>	<b>100%</b>	

For the experimental task, if fraud or audit risk assessment is required, it is appropriate to include a wide range of audit experience levels (Johnson et al. 2013). Accordingly, this study includes participants from different experience levels, from staff to partner, as current practice in auditing requires to include all audit team members "from staff to partner" in the assessment process of fraud risk and audit risk during audit planning. This study will explore the auditors' perceptions of CEOs overconfidence in one of the emerging markets. Participants were asked to assess CEO overconfidence individually, and they were also required to make an assessment for earnings quality that might be provided by overconfident CEO in the case scenario. Finally, they were required to determine how they react to CEO overconfidence when they make some decisions.

#### 4.2 Case Design:

Brick et al. (2006) confirm that overconfident CEOs beliefs are miscalibrated. They overestimate their own accuracy, more confident than they are accurate (Schaefer et al. 2004). CEOs overconfidence lead CEOs to overestimate future returns, underestimate risk and probability of failure (Xia et al. 2009; Wei et al. 2011; Galasso and Simcoe 2011; Banerjee et al. 2015). Consequently, the case designed to an overconfident CEO who has been assigned

to an industrial company in Egypt. He starts working overconfidently and promises to achieve over-optimistic earnings. He has a good experience, but there are many problems he will face. He provides a plan that has been objected by a corporate economic consultant, but he insists on his plan. The CEO in the case was over-optimistic, suffered from the illusion of control, risk-taking, and overestimating the precision of his judgments. The auditors were required to (i) Discover these personal traits, (ii) Determine how the CEO overconfidence personal traits will be reflected in earnings quality, (iii) Finally they were required to determine how overconfidence as a personal traits will affect audit fraud and audit risk, and to what extent these personal traits would increase audit effort and audit fees in the company.

## **5. Data Analysis and the Results:**

### **5.1 Auditors' Assessment for CEO Personal Traits:**

The value of Cronbach's alpha is 0.825 which means the reliability of the questionnaires is high (Square root of alpha is 90.82%). Table (2) shows auditors' assessment for CEO personal traits in the case. The t-test is used to investigate whether the answers of auditors differ significantly from the neutral. "Midpoint" on the Likert scale is "3"(Field 2010; Daugherty et al. 2012).

Firstly, it is important to measure auditors' ability to discover personal traits triggered by overconfident CEO in the case scenario, and to what extent this ability would vary according to audit firm size. This analysis gives an opportunity to make an in-depth understanding and looking forward to enhancing auditors' role to constrain CEO overconfidence. Auditors were asked to determine the extent of their agreement on a five-point scale to measure their ability to discover overconfident personal traits and to measure auditors' reactions to these personal traits. P-values are calculated by comparing means to the scale midpoint; it is a meaningful method because it separates general agreement from disagreement with the survey statement (Daugherty et al. 2012).

Table (2) shows that the mean values for the respondents' answers to questions 1,2,3,4 are (3.732, 2.712, 3.366, 3.435) respectively, the standard deviation values are (0.870, 1.098, 1.180, 1.244) respectively. The values of standard deviations are big which indicating that there is a high variance in auditors' ability to discover personal traits triggered by

overconfident CEO in the case scenario. It should be noted that this variance is still big in subgroups, the standard deviation for Big4 answers to questions 1,2,3,4 are (0.850, 1.012, 1.156, 1.222) respectively, while the standard deviation values for non-Big 4 answers to questions 1,2,3,4 are (0.869, 1.105, 1.194, 1.267) respectively.

The previous results mean that not all the auditors in the sample were able to discover the same degree of personal traits, and it was done by the sense because there is no formal guidance in auditing to explain overconfidence meaning, or to guide auditors to consider overconfidence personal traits.

The researcher divided the expected values of the scale to categories as follows; (4.2-5) strongly agree, (3.4-4.19) agree, (2.60-3.39) neutral, (1.80-2.59) disagree, and less than (1.80) strongly disagree. Consistent with the expectations, (Table 2) shows that auditors agree with the statement that CEO is suffering from overconfident, and they agree that he has a high level of over-optimism (mean 3.732;  $p < .01$ ). However, they are neutral when they asked if CEO is suffering from the illusion of control (mean 2.712;  $p < .01$ ), and they agree that the CEO trusts in his personal abilities more than the abilities of others (mean 3.366;  $p < .01$ ). Finally, they agree that the CEO ignores the risks (mean 3.435;  $p < .01$ ).

When analyzing the results according to audit firm size, it is noted that auditors in Big 4 and non-Big 4 firms agree that the CEO has a high level of over-optimism (mean 3.921, 3.619) respectively. The difference between the assessment in Big4 and non Big4 auditors is not significant. In addition auditors in Big4 were neutral when they were asked if the CEO is suffering from the illusion of control (mean 3.052), but auditors in non-Big 4 disagreed that the CEO is suffering from the illusion of control (mean 2.507). Therefore the difference between the assessment in Big 4 and non Big 4 auditors is significant (t-test  $p < .05$ ). Furthermore, auditors in Big 4 and non-Big 4 agree that the CEO trusts in his personal abilities more than the abilities of others (mean 3.526, 3.269) respectively, therefore the difference between the assessment in Big 4 and non-Big 4 auditors is not significant. Finally, auditors in Big 4 and non-Big 4 agree that the CEO ignores the risks (mean 3.421, 3.444) respectively, therefore the difference between the assessment in Big 4 and non-Big 4 auditors is not significant. These results show that the ability of auditors to discover overconfidence personal traits may vary depending on audit firm size.

Table (2)

Auditors assessment for CEO personal traits in the case				
Statement	Mean (SD)	Diff. From Neutral <sup>1</sup>		t-statistic <sup>2</sup>
Q1- CEO has a high level of over-optimism.	3.732 (0.870)	0.732		8.458***
Q2- CE is suffering from the illusion of control.	2.712 (1.098)	[0.288]		[2.627]***
Q3- CEO trusts in his personal abilities more than abilities of others.	3.366 (1.180)	0.366		3.118***
Q4- CEO ignores the risks.	3.435 (1.244)	0.435		3.519***
	<b>Mean (SD)</b>	<b>Non-Big4</b>		<b>t-statistic<sup>3</sup></b>
	<b>Big 4</b>			
Q1- CEO has a high level of over-optimism.	3.921(0.850)	3.619(0.869)		1.705
Q2- CEO is suffering from the illusion of control.	3.052(1.012)	2.507(1.105)		2.475**
Q3- CEO trusts in his personal abilities more than abilities of others.	3.526(1.156)	3.269(1.194)		1.058
Q4- CEO ignores the risks.	3.421(1.222)	3.444(1.267)		[0.091]

1- Diff. from Neutral: The difference from the neutral value of scale (the midpoint of scale is 3).

2- t-test examines whether auditors' answers are significantly different from the neutral on the Likert scale (Midpoint "3").\*, \*\*, \*\*\* represents significance at the 0.10, 0.05, 0.01 respectively.

3- t-test examine whether Big4 auditors answers are significantly different from the non-Big4 auditors' answers. \*, \*\*, \*\*\* represents significance at the 0.10, 0.05, 0.01 respectively.

## 5.2 Auditors' Reaction to overconfidence personal traits:

Consistent with auditors' perceptions of earnings quality; H1 (Table 3, Panel A), auditors generally agree that "the CEO in the case scenario would provide less credible earnings, less accurate earnings, and less faithful earnings" (mean 3.554, 3.574, 3.554 respectively, p-values  $p < .01$  for all statements). These results confirm that auditors will perceive the negative relation between CEO overconfidence and earnings quality.

Consistent with auditors' reactions to overconfident CEO; H2 (Table 3, Panel B), auditors generally react negatively to overconfident CEO by increasing fraud risk and audit risk, and this would increase audit effort, accordingly, audit fees would be increased. They agree that the fraud risk will be high in the case scenario (mean 3.465, p-value  $p < .01$ ) and they agree that the audit risk will be increased due to CEO overconfidence personal traits in the case scenario (mean 3.554, p-value  $p < .01$ ). Also, they agree that the audit effort will increase due to CEO overconfidence personal traits in the case scenario (mean 3.891, p-value  $p < .01$ ), accordingly, they agree that audit fees should be increased due to the personal traits in the case scenario (mean 3.871, p-value  $p < .01$ ). These results provide evidence that auditors link CEO overconfidence personal traits and audit decisions. Consequently, they are aware of the negative implications that are triggered by these personal traits. This is consistent with that financial reporting risk is dominated by the hubris effect of overconfident CEO.

Table (3)

<b>Panel A: CEO overconfidence and earnings quality:</b>			
<b>Statement</b>	<b>Mean (SD)</b>	<b>Diff. FromNeutral<sup>1</sup></b>	<b>t-statistic<sup>2</sup></b>
Q5- CEO would provide less credible earnings	3.554 (0.943)	0.554	5.908***
Q6- CEO would provide less accurate earnings	3.574 (0.993)	0.574	5.809***
Q7- CEO would provide less faithful earnings	3.554 (0.888)	0.554	6.271***
<b>Panel B: Auditors reaction to CEO overconfident:</b>			
Q8- Auditors assessment to fraud risk in the company	3.465 (0.933)	0.465	5.010***
Q9- Auditors assessment to the audit risk in the company	3.554 (0.865)	0.554	6.436***
Q10- Auditors assessment to the audit effort in the company	3.891 (0.926)	0.891	9.668***
Q11- Auditors assessment to the audit fees in the company	3.871 (1.035)	0.871	8.452***

1- Diff. from Neutral: The difference from the neutral value of scale (the midpoint of scale is 3).

2- t-test examines whether auditors' answers are significantly different from the neutral on the Likert scale (Midpoint "3").\*,\*\*,\*\*\* represents significance at the 0.10, 0.05, 0.01 respectively.

### 5.3 Big 4 vs.Non Big 4:

After analyzing the auditors' perceptions of the relation between overconfidence and earnings quality (Table 4, Panel A) according to audit firm size, it is noted that auditors in Big4 and non Big4 firms agree that CEO in the case scenario would provide less credible earnings (mean 3.736, 3.444) respectively, therefore, the difference between the assessment is not significant. Further, auditors in Big 4 and non-Big4 agree that the CEO in the case scenario would provide less accurate earnings (mean 3.605, 3.555) respectively. Therefore, the difference between the auditors' assessment in Big 4 and non Big 4 is not significant. Moreover, auditors in Big 4 and non-Big 4 agree that the CEO in the case scenario would provide less faithful earnings (mean 3.657, 3.492) respectively. Thus, the difference between the assessment in Big 4 and non-Big 4 auditors is not significant.

Table 4, Panel B shows that auditors in Big 4 and non-Big 4 firms agree that the fraud risk will be high in the case scenario (mean 3.500, 3.444), respectively, hence, the difference between the reaction of Big 4 and non-Big 4 auditors is not significant. Similarly, auditors in Big 4 and non-Big 4 firms agree that the audit risk will increase due to the CEO personal traits in the case scenario (mean 3.736, 3.444), respectively, therefore, the difference between the reaction of Big 4 and non-Big 4 auditors is not significant. Auditors in Big 4 and non-Big 4 firms agree that the audit effort will increase due to the CEO personal traits in the case scenario (mean 4.105, 3.762), respectively, therefore, the difference between the reaction in Big 4 and non-Big 4 auditors is significant (p-value  $p < .10$ ). Finally, auditors in Big 4 and non-Big 4 firms agree that the audit fees should be increased due to the CEO personal

traits in the case scenario (mean 4.131, 3.714), respectively, consequently, the difference between the reaction in Big 4 and non-Big 4 auditors is significant (p-value p<.05).

Table (4)

Panel A: CEO overconfidence and earnings quality:			
Statement	Mean (SD)		t-statistic <sup>1</sup>
	Big 4	Non-Big4	
Q5- CEO would provide less credible earnings	3.736(0.920)	3.444 (0.946)	1.519
Q6- CEO would provide less accurate earnings	3.605(0.886)	3.555(1.059)	0.242
Q7- CEO would provide less faithful earnings	3.657(0.814)	3.492(0.931)	0.908
Panel B: Auditors reaction to CEO overconfident:			
Q8- Auditors assessment to the fraud risk in the company	3.500(0.922)	3.444(0.946)	0.288
Q9- Auditors assessment to the audit risk in the company	3.736(0.759)	3.444(0.911)	1.659
Q10- Auditors assessment to the audit effort in the company	4.105(0.727)	3.762(1.011)	1.826*
Q11- Auditors assessment to the audit fees in the company	4.131(0.704)	3.714(1.169)	1.990**

t-test examine whether Big 4 auditors' answers are significantly different from the non-Big 4 auditors' answers. \*, \*\*, \*\*\* represents significance at the 0.10, 0.05, 0.01 respectively.

#### 5.4 Additional Analysis:

This analysis aims to measure (i) Determinants of auditors' perceptions of earnings quality, and (ii) Auditor' reaction in the case; the next two models are building on the data extracted from the case, these models are as follows:

$$NEQAsses. = B_0 + B_1 Overc.Perc. + B_2 Big4 + B_3 Age + B_4 Exp. + B_5 Pos. + Qual. (1)$$

$$Aud. Reac. = B_0 + B_1 Overc.Perc. + B_2 Big4 + B_3 Age + B_4 Exp. + B_5 Pos. + Qual. (2)$$

#### Where:

- **NEQAsses.**= Negative assessment of Earnings Quality (Average Q5:Q7).
- **Overc.Perc.**= Auditor's perception for CEO Overconfidence in the Case scenario (Average Q1:Q4).
- **Aud.Reac.**= Auditor's reaction measured by auditor assessment for fraud risk, audit risk, audit effort, and audit fees in the case scenario (Average Q8:Q11).
- **Big 4:** Audit firm size, which is measured as a dummy variable, equal one if the auditor work at Big 4 audit firms and equal zero otherwise.
- **Age:** Auditor age, which is measured as a dummy variable, equal one if the auditor age less than thirty years, two if he is between thirty to thirty-nine, three if he is between forty to fifty, four if he is more than fifty.
- **Exp.:** Auditor experience, which is measured as a dummy variable, equal one if the auditor experience less than five years, two if he has an experience between five to ten years, three if he has an experience between sixteen to twenty years, four if he has experience more than twenty years.
- **Pos.:** Auditor position, which is measured as a dummy variable, equal one if the auditor is staff, two if he is a senior, three if he is a manager, four if he is a partner.

- **Qual.:** Auditor qualifications, which is measured as a dummy variable, equal one if the auditor has a bachelor, two if he has an academic diploma, and three if he has an MSc.

#### **5.4.1 The correlations between variables:**

Table (5) shows the Pearson (Spearman) correlation between variables. The correlation matrix shows that there is a positive correlation between auditors' perception of overconfidence (Overc.Perc.) and negative assessment for earnings quality (NEQAsses.), (p-value  $p < .01$ ), which means that the more auditors' ability to discover overconfidence personal traits, the more negative assessment for earnings quality. There is a positive correlation between auditors' perception of overconfidence (Overc.Perc.) and auditors' reaction (Aud.Reac.) (p-value  $p < .01$ ), which means that the more auditors' ability to discover overconfidence personal traits, the more reaction when they assess fraud risk, audit risk, audit effort, and audit fees.

There is a positive correlation between auditors' perception of overconfidence (Overc.Perc.) and audit firm size (Big 4) and this result is significant in Pearson correlation (p-value  $p < .1$ ), but not significant in spearman correlation, which means partially that auditors in Big 4 are more able to discover personal traits associated with overconfident CEOs more than others.

There is a positive correlation between auditors' perception of overconfidence (Overc.Perc.) and auditors' age (Age), this correlation is not significant. Furthermore, there is a negative correlation between auditors' perception of overconfidence (Overc.Perc.) and auditors' experience (Exp.) and this correlation is not significant. In addition, there is a positive correlation between auditors' perception of overconfidence (Overc.Perc.) and auditors' position (Pos.), this correlation is not significant. Moreover, there is a positive correlation between auditors' perception of overconfidence (Overc.Perc.) and auditors' qualifications (Qual.), this correlation is not significant. Therefore, it can be concluded that auditors' ability to discover overconfidence personal traits does not correlate with auditors' age, auditors' experience, auditors' position, or auditors' qualifications.

Finally, the results show that auditors' characteristics (such as; audit firm size age, experience, position, and qualifications) don't correlate with auditor assessment for earnings quality (NEQAsses.) or (Aud.Reac.). Except, auditors' position, where there is a positive

correlation between auditors' position (Pos.) and negative assessment for earnings quality (NEQasses.), this result is significant only in Spearman correlation.

Table 5

Correlations Matrix Spearman (Pearson) correlations are above (below) the matrix

	Overc.Perc.	NEQperc.	Aud. Reac.	Big4	Age	Exp.	Pos.	Qual.
Overc.Perc.	1	0.468***	0.444***	0.150	0.093	-0.032	0.071	0.043
NEQasses.	0.473***	1	0.278***	0.077	0.009	-0.065	0.195*	0.022
Aud. Reac.	0.454***	0.198**	1	0.120	-0.193	-0.148	-0.119	-0.086
Big4	0.168*	0.095	0.183*	1	-0.039	-0.018	-0.092	-0.115
Age	0.080	-0.005	-0.129	-0.022	1	0.741***	0.635***	0.209**
Exp.	-0.063	-0.070	-0.129	-0.032	0.758***	1	0.848***	0.362***
Pos.	0.031	0.127	-0.124	-0.078	0.701***	0.914***	1	0.279***
Qual.	0.029	0.030	-0.87	-0.112	0.228**	0.342***	0.292***	1

Significance is based on two-tailed t-tests. \*, \*\*, \*\*\* represents significance at the 0.10, 0.05, 0.01 respectively.

#### 5.4.2 Determinants of Auditors Reaction:

Regression results are presented in table (6). The coefficient of auditors' overconfidence perception (Overc.Perc.) is positive and significant at the 1% level in two columns, consistent with that, the more auditors' ability to discover CEO overconfidence, the more negative assessment for earnings quality and the more they realize that when they are assessing fraud risk, audit risk, audit effort, and audit fees. With respect to other variables, the coefficient of all variables is not significant, except the coefficient of auditors' age (Age) is negative and significant at the 10% level in the first column, which means that the negative assessment for earnings quality decreased by auditors' age.

Table 6

Regression overconfidence perception (Overc.Perc.) on negative assessment of earnings quality (NEQAsses.) and auditor reaction (Aud.Reac.)

	Model <sub>1</sub> (NEQAsses.)	Model <sub>2</sub> (Aud.Reac.)
Constant	1.661*** (4.263)	2.544*** (7.562)
Overc.Perc.	0.527*** (5.337)	0.424*** (4.970)
Big4	0.056 (0.349)	0.147 (1.067)
Age	-0.227* (-1.942)	-0.112 (-1.110)
Pos.	0.242** (2.269)	-0.013 (-0.137)
Qual.	-0.014 (0.927)	-0.071 (-0.553)
F. Test	6.883***	6.233***
Adjusted R <sup>2</sup>	0.227	0.207
VIF	<3	<3

- This table summaries OLS regression coefficient t-statistics are in parentheses, Significance is based on two-tailed t-tests. \*, \*\*, \*\*\* represents significance at the 0.10, 0.05, 0.01 respectively.
- Exp. Variable was deleted to solve multicollinearity problem with pos.

Rerun model (2) to measure the effects of overconfidence perception (Overc.Perc.) on auditors' reaction when assessing Fraud risk (Q8); Audit risk (Q9); Audit effort (Q10); Audit fees (Q11); results are presented in table (7), and shows that the coefficient of auditors'

perception of overconfidence (Overc.Perc.) is positive and significant at the 1% level in all columns, consistent with that, the more auditors' ability to discover CEO overconfidence the more likelihood to raise the fraud risk, audit risk, audit effort, and audit fees. With respect to other variables, the coefficient on all variables is not significant, except the coefficient on auditors' age (Age) is negative and significant at the 5% level in the second column, which means that the audit risk assessment decreased by auditors' age.

**Table 7**

**Regression overconfidence perception (Overc.Perc.) on auditor reaction when assessing Fraud risk assessment (Q8); Audit risk assessment (Q9); Audit effort assessment (Q10); Audit fees assessment (Q11)**

	<b>(Q8)</b>	<b>(Q9)</b>	<b>(Q10)</b>	<b>(Q11)</b>
<b>Constant</b>	2.202*** (5.017)	2.422*** (6.523)	2.972*** (6.455)	2.596*** (5.140)
<b>Overc.Perc.</b>	0.438*** (3.887)	0.501*** (5.248)	0.333*** (2.811)	0.413*** (3.181)
<b>Big4</b>	-0.088 (-0.487)	0.106 (0.699)	0.255 (1.352)	0.312 (1.509)
<b>Age</b>	-0.136 (-1.037)	-0.224** (-2.014)	-0.129 (-0.936)	0.045 (0.294)
<b>Pos.</b>	-0.015 (-0.122)	0.027 (0.270)	0.004 (0.029)	-0.061 (-0.444)
<b>Qual.</b>	0.097 (0.568)	-0.183 (-1.280)	-0.060 (-0.340)	-0.131 (-0.677)
<b>F. Test</b>	3.345***	7.304***	2.512**	3.085**
<b>Adjusted R<sup>2</sup></b>	0.106	0.242	0.071	0.095
<b>VIF</b>	<3	<3	<3	<3

- This table summaries OLS regression coefficient t-statistics are in parentheses; Significance is based on two-tailed t-tests. \*, \*\*, \*\*\* represents significance at the 0.10, 0.05, 0.01 respectively.

- Exp. Variable was deleted to solve the multicollinearity problem with pos.

The previous results show that auditors' awareness of overconfidence as a financial reporting risk indicator is translated into greater assessment for fraud risk, audit risk, which in turn would increase audit effort, and this would result in increased audit fees. The results also show that the more ability to discover overconfidence in CEO personality the more reactions during audit decision making.

Accordingly, professional auditing organizations should be aware of three phases required to consider CEO overconfidence in the audit process. The first phase is auditors' ability to discover different forms of overconfidence, where auditors should be able to discover to what extent clients' CEO is overconfident, and this requires auditors to have a good background on overconfidence meaning, and the distinct forms of overconfidence. The next step is the expecting phase, where auditors' should be able to expect the implications of CEO overconfidence on corporate performance, and financial reporting risks. The last step is to realize overconfidence, where an auditor should be incorporating overconfidence in different

auditing processes. Consequently, professional auditing organizations should issue a statement that covers the following items:

- Discussion of the overconfidence meaning.
- Discussion of the different forms of overconfidence and the implications of CEOs' overconfidence on corporate performance.
- Discussion of how overconfidence leads to fraudulent financial statements.
- Provide auditors with red flags for CEOs overconfidence and determine the necessary procedures to deal with these red flags.
- The statement should encourage auditors by continuous learning to read and discover the empirical results on the implications of managerial overconfidence.
- Incorporating CEOs overconfidence in audit decisions.

#### **6. Discussion, conclusion and future research:**

CEOs' overconfidence affects corporate investment, financing, and accounting policies. Prior research documents that overconfidence could explain why corporations engage in value-destroying decisions, these policies can be costly and could lead to financial crises and corporate failures. The literature has confirmed negative implications of overconfidence on earnings quality and other literature has confirmed that high levels of overconfidence exhibited by CEOs should be considered during the audit process.

This study contributes to the literature in accounting behavior through examining auditors' perceptions for observable measures of overconfidence and to what extent they incorporate CEO overconfidence in auditors' decision-making process, which could improve the quality of auditors' judgments, regard fraud risk, audit risk consequently this would be reflected in audit effort and audit fees.

The importance of this study stems from being the first study conducted to examine auditors' perceptions in one of the developing countries, depending on the experimental research setting. Moreover, most literature covered the U.S. Therefore results of such studies cannot be generalized in emerging economies. Furthermore, the results from emerging countries help to make a generalization. Moreover, these results reached a consensus around the risks associated with overconfidence that drive regulators to reconsider the current auditing

standards and to issue more guidelines about personal traits associated with overconfident CEOs.

Auditors should perceive CEOs overconfidence for several reasons; (i) the direct relation between CEO overconfidence and financial reporting decisions could increase financial reporting risk. For example, overconfident CEOs tend to issue optimistic forecasts for earnings which they subsequently miss. Therefore, they are more likely to commit fraud as they are less aware of moral behaviors. (ii) The indirect relation between CEO overconfidence and financial reporting decisions. This indirect relation stems from inefficient investment activities that drive them to distort financial information to hide bad outcomes of their decisions.

The direct and indirect relations between overconfidence and financial reporting decisions should affect auditors' assessment for earnings quality in corporations with overconfident CEOs. Therefore, there is a need to perform strict substantive tests when auditors are assessing fraud risk and audit risk and this, in turn, increases audit effort and audit fees.

The results indicate that the hubris effect of CEO overconfidence increases the financial reporting risk. These results are in agreement with empirical studies in accounting that has examined the effects on earnings quality (e.g., Ahmed and Duellman 2013; Schrand and Zechman 2012; Presley and Abbot 2013; Hwang et al. 2015; Dichev et al. 2016), and audit fees (e.g., Yang et al. 2013; Duellman et al. 2015).

The results provide evidence that auditors are aware of CEOs overconfidence and they are aware of the negative relation between client overconfidence and earnings quality, which leads them to increased fraud risk, audit risk, audit effort, and audit fees. The study highlights the gap between auditing standards and the professional practice, and it provides valuable results for market participants and regulators. Moreover, Public accounting firms should consider the relationship between specific manager personality traits (including overconfidence) and the increased likelihood of fraud risk, audit risk, audit effort, and audit fees, which should be considered by training courses for auditors in public accounting firms. Also, these findings may be more useful to auditing standards setters and public accounting firms to issue guidelines to improve professional guidance regarding assessing fraud risk, audit risk, audit effort, and audit fees in corporations with overconfidence CEOs.

There are some limitations to this study. First, the experimental materials reflect one case scenario in one industry. Second, the procedures were used in the quasi-experimental did not involve any group interaction in assessing fraud risk, audit risk, audit effort, and audit fees as required by the professional standards. Third, there are many factors that could moderate the relation between CEOs overconfidence and earnings quality such as corporate governance and litigation risk. These factors have not been examined in this research. So, it would be interesting for future research to examine whether these factors would affect the auditors' perceptions of CEOs overconfidence. Findings in this study have implications for audit practice.

The results suggest that auditors are able to realize an unethical behavior associated with overconfident managers, consequently examining the relation between CEOs overconfidence and auditors fees. Moreover, examining the factors that could moderate this relation is a useful research area in emerging markets. Further, the effect of CEOs overconfidence on the termination of auditors has not been examined, and future research should cover this gap in the literature.

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#### **Appendix**

**Please read the following case carefully then answer the attached questions:**

Suppose that you have been assigned to audit company's (X) on 1/1/2018 this company work in the garment industry. The company market share equivalent to 10% of local market sales. The company started working in this field since 1985 and the company has become a pioneer in the garment industry, the company's has diversified products. These products put up for sale to a large number of local stores and exports to foreign markets in many Arab countries.

The company has been exposed to many crises due to competitive threats and the economic recession led to the deterioration of its sales. The return on investment during the last three years was 8%, 8.5%, and 9.25%, respectively.

On the first of January 2018, Mr. Ahmed Eissa was assigned as CEO of the company. He has experience in the garment industry exceed 20 years. Mr. Ahmed Eissa has promised to achieve a 40% in sales growth; he began his work with enthusiasm and expressed an extraordinary optimism of the future.

Mr. Eissa's plan was as follows; adding new products, opening distribution outlets within Egypt, and accessing European markets. The company's economic consultant has protested against these policies, particularly there is raising in financing costs and competition threats,

but Mr. Eissa has insisted on his opinion, he was confident of his ability to overcome the odds, stressing his ability to withstand the many crises in the past with some competitors, and everything will be under control in a short period.

Mr. Eissa said that "I promise to improve the overall climate within the company, and it is important to increase employee wages to improve their loyalty and productivity". He also decided to increase the volume of production and adopt high-quality programs to access the European markets and carry out advertising campaigns. Mr. Eissa also promised in a press conference to raise return on investment at the end of 2018 to 15%.

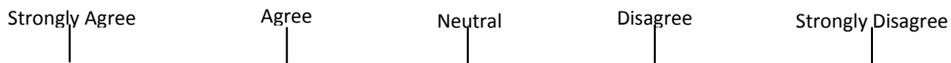
He also insisted on keeping some of the loss-making products, promising to improve the profitability of those products and to make extraordinary growth in their sales. He has shown less attention to the competition threats, insisting on his ability to holding some of the competitors in the local market within four years.

Please respond to each statement (1) through (11) below:

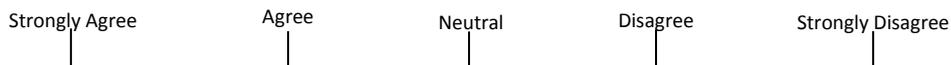
**1. Mr. Eissa has a high level of over-optimism:**



**2 - Mr. Eissa suffers from the illusion of control:**



**3. Mr. Eissa trusts in his personal abilities more than abilities of others:**



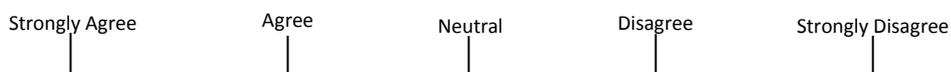
**4. Mr. Eissa ignores the risks:**



**5- Mr. Eissa would provide less credible earnings:**



**6- Mr. Eissa would provide less accurate earnings:**



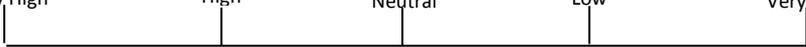
**7- Mr. Eissa would provide less faithful earnings:**

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree



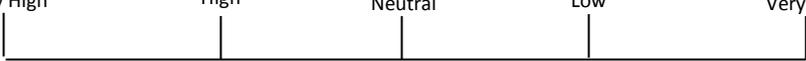
**8- I think the information provided above will effect on fraud risk in company (X) as follow:**

Very High      High      Neutral      Low      Very Low



**9- I think the information provided above will effect on audit risk in company (X) as follow:**

Very High      High      Neutral      Low      Very Low



**10- I think the information provided above will effect on audit effort in company (X) as follow:**

Very High      High      Neutral      Low      Very Low



**11- I think the information provided above will effect on audit fees in company (X) as follow:**

Very High      High      Neutral      Low      Very Low

