

***Analysis of factors influencing the ability of external auditors to detect manipulation***

***Análisis de factores que influyen en la capacidad de los auditores externos para detectar manipulaciones***

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*Received: 24/02/2021*

*Accepted: 22/05/2021*

*Published: 24/06/2021*

**Abstract:**

*The purpose of the paper was to identify the factors that influence external auditor's ability to detect manipulation in financial statements. A structured questionnaire with 16 items was designed. Based on the convenience sampling method, a sample of 113 auditors as respondents was selected from different states in Algeria. Multiple linear regressions were performed on the proposed conceptual model. Our results showed that the independence of external auditors; length of audit tenure; and auditor's professional specialization have a positive and significant influence on external auditor's ability to detect manipulation in financial statements. However, audit firm size does not have a significant influence on the ability to detect manipulation. The paper concluded with some recommendations that can be useful in enhancing the auditor's manipulations detection ability.*

**Keywords:** *Audit Tenure; Fraud; Independence; Office Size; Specialized Auditor.*

**Resumen:**

*El propósito de este artículo fue identificar los factores que influyen en la capacidad del auditor externo para detectar la manipulación en los estados financieros. Se diseñó un cuestionario estructurado con 16 ítems. basado en el método de muestreo por conveniencia, se seleccionó una muestra de 113 auditores como encuestados de diferentes provincias de Argelia. Se realizaron regresiones lineales múltiples sobre el modelo conceptual propuesto. Nuestros resultados mostraron que la independencia de los auditores externos; la duración de la tenencia de auditoría; y la especialización profesional del auditor tienen una influencia positiva y significativa en la capacidad del auditor externo para detectar manipulación en los estados financieros. Sin embargo, el tamaño de la empresa de auditoría no tiene una influencia significativa en la capacidad para detectar la manipulación. finalmente, el trabajo concluyó con algunas recomendaciones que pueden ser útiles para mejorar la capacidad de detección de manipulaciones del auditor.*

**Palabras clave:** *Tenencia de Auditoría; Fraude; Independencia del Auditor; Tamaño de la Oficina; Auditor Especializado.*

**1. INTRODUCTION**

Audit plays a substantial role in economic life and as for firms and the other interested parties. In financial terms, it may contribute to enhancing transparency and ensuring accountability. Transparency can reduce vulnerability to manipulation and unethical practices, which leads to improving public trust in companies. Watts & Zimmerman (1986) pointed out that by audit, the monitoring contracts would be boosted and the information risk could be reduced. Additionally, Newman et al., (2005) state that auditing may provide enforcing and protecting for investor rights. Companies' financial statements are subject to audit by external auditors. So, according to (PCAOB)

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and (IAASB), the objective of an audit of financial statements is to "obtain reasonable assurance that the financial statements are free of material misstatement" (PCAOB, 2020; See AU Section 508.08; ISA 200: Para. 11).

Accounts manipulation is a multifaceted phenomenon; it is not new but goes back centuries. Ever since ancient times, men have used fraud, manipulation, and deception to obtain money, land, goods, and trust, with the main goal of making a profit (Petraşcu & Tieanu, 2014; Jones, 2011). From the late twentieth century, manipulating financial statements has become a common element of companies' financial life (Pustylnick, 2011, p.61). Some companies feel the pressure to appear profitable to attract investors and resources, but accounting manipulation practices sometimes leading to drastic consequences (Diana & Madalina, 2007). So, accounting manipulations have many negative consequences on various stakeholders and that may include reducing the quality of the information contained in financial statements (Dimitrijevic et al., 2020); misrepresent a company's performance (Dichev et al., 2013); also can damage the company's reputation. Auditors use sampling techniques to obtain sufficient audit evidence. According to Jovković (2009) (as cited in Dimitrijevic et al., 2020), they cannot provide absolute assurance that financial statements are free from manipulation, errors, and fraud. Hence, Hastuti & Gozali (2015, p.222) affirmed that nowadays, it is not easy to discover financial statement manipulation. Drábková (2016, p.229) states that detection of the risk of manipulated financial statements is not an easy decision and requires sophisticated professional skills of people who analyze the financial statements.

The researches that focus on the analysis of accounting manipulations in financial statements are always interesting to both professionals and academics. Nevertheless, although account manipulation has been the subject of research, discussion, and even controversy in several countries (Stolowy & Breton, 2004), but according to our knowledge, very few empirical studies have investigated the factors that influence auditor's ability to detect financial statement manipulation in the Algerian context. Hence, this paper attempts to fill this gap by providing empirical results. Therefore, this paper presents three main contributions. First, most of the previous studies were relied on financial measures to detecting and predicting accounting manipulation. However, Eusebio (2016) concluded that non-financial measures (indicators) have revealed high effectiveness in the detection of financial statement manipulations. So, this paper will rely on non-financial measures. Second, the results of this paper may provide a better understanding of how to increase the reliability, credibility of the financial statements and financial reporting. Third, this paper can provide useful results for some parties, such as regulators, investors, clients, auditors, and shareholders. Specifically, our results may be of interest to the regulators to help them make effective strategies to reduce and prevent manipulation in accounting.

Based on the above, the current paper attempts to answer the following research question: Do the audit firm size, the external auditor's independence, extended audit tenure, and auditor's professional specialization influence the external auditor's ability to detect financial statements manipulation? Accordingly, the objectives of this paper include the following: (1) To determine the influence of audit firm size on his/her ability to detect manipulation in financial statements; (2) To determine the influence of the independence of the external auditor on his/her ability to detect manipulation in financial statements; (3) To determine the influence of the extended audit tenure on his/her ability to detect manipulation in financial statements; and (4) To determine the influence of auditor's professional specialization on his/her ability to detect manipulation in financial statements.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1. Accounts Manipulation**

Mautz (1964, p.1) defines auditing as "concerned with the verification of accounting data, with determining the accuracy and reliability of accounting statements and reports." However,

defining manipulation of accounts is as difficult as identifying it, because manipulators often use innovative, creative, malicious techniques and surprising ways to achieve certain goals. Therefore, determining whether the financial statements are free from any manipulation could be a very cumbersome exercise. Copeland (1968, p.110) defines account manipulation as "some ability to increase or decrease reported net income at will." While, Trussel (2003, p.616) defines accounting manipulation as "when the managers of an organization intentionally misstate their financial information to favorably represent the entity's financial performance". Furthermore, Mamo & Aliaj (2010) defined financial information manipulation as "a distorted presentation, a misstatement of the financial position/performance, creating a false impression of an organization's financial strength." According to Aljinović Barać & Klepo (2006, p.280) potential motives of accounts manipulative actions include: (1) Hiding bad performance; (2) Minimizing fiscal and political costs; (3) M & A, management buyout; (4) Getting better terms of crediting by banks; (5) Avoiding breaking debt covenants; (6) Maximizing managers compensations; (7) Minimizing cost of capital by issuing securities on the capital market; and (8) Reaching analyst forecast consensus about earnings per share figure.

The manipulation of financial information includes many terms such as account manipulation, income smoothing, aggressive accounting, creative accounting, or earnings management (Diana & Madalina, 2007, p.935). According to the American Institute of Certified Public Accountants (AICPA), accounting manipulation may include any of the activities following (AICPA, 2002, see AU 316.06): (1) Manipulation, falsification, or alteration of accounting records or supporting documents from which the financial statements are prepared; (2) Misrepresentation in or intentional omission from, the financial statements of events, transactions, or other significant information; and (3) Intentional misapplication of accounting principles relating to amounts, classification, manner of presentation, or disclosures. In this context, Bhasin (2016, p.199) suggests that "all types of accounting manipulation practices should be legally recognized as a serious crime, and accounting bodies, law courts, and regulatory authorities must adopt exemplary punitive measures to prevent such unethical practices."

Aljinović Barać & Klepo (2006) found that the most frequent areas of accounts manipulation in Croatia are depreciation policy; write-off of accounts receivable; taxes; inventories; revenues; provisions and contingents; long-term assets revalorization; recognition and measurement financial instruments; investment in associates; related-party disclosures; and foreign currency. Dichev et al., (2013) believe that hard to detect earnings manipulation but peer comparisons and lack of a significant association between earnings and cash flows may provide useful warning signs. Besides, Gabric (2018) proved that accrual-based investment ratio Earnings Per Share (EPS) has a significant impact on the determination of the accounting manipulations in the financial statements of the companies. Previous research has found that detection of manipulation (falsification or alteration) in accounting is influenced by audit firm size (e.g., Choi et al., 2010); auditor independence (e.g., Al Momani & Obeidat, 2013; Sarwoko & Agoes, 2014); ethics of audit profession (e.g., Al Momani & Obeidat, 2013); and auditor industry specialization (e.g., Capalbo, et al. 2014). As such, we will consider the influence of four audit characteristics: (i) Audit firm size, (ii) Auditor independence, (iii) Extended audit tenure, and (iv) Auditor industry specialization.

## **2.2. Audit Firm Size and Detection of Accounts Manipulation**

The term size of audit firm refers to the scale of the organization and the number of persons employed at that firm. Where audit firm can be classified based on (1) the market size (size and number of clients), which depends on the total number of target clients in the market; and (2) types of audit services offered. According to this, we can divide the audit firms into three groups: small firms (as audit offices), mid-size firms, and big firms (as big 4 audit firms). Large audit firms are more independent and provide a higher quality of audit (DeAngelo, 1981), have competitive

advantages over small firms because have greater capabilities such as financial resources, superior technology, and talented employees. Zhou & Elder (2001) claim that Big-4 auditors are connected with fewer earnings management. Also, Choi et al. (2010) confirmed that audit firm size has a significant influence on audit quality. Therefore, it's only logical to believe that the larger audit firms are more likely to detect manipulation than the smallest. Thus, we adopt the following hypothesis:

H1: Audit firm size has a positive influence on the ability to detect manipulating in the financial statements.

### **2.3. Independence of Auditor and Detection of Accounts Manipulation**

Independence encompasses integrity, objectivity, and impartiality. So, external auditor has to remain independent and transparent in their work. International Standards Board (ISB, 2000, p.44) defines auditor independence as "freedom from those pressures and other factors that compromise, or can reasonably be expected to compromise, an auditor's ability to make unbiased audit decisions." Gay & Simnett (2003, p.745) has defined independence in auditing as the "ability to withstand pressure from management influence when conducting an audit or providing audit-related services so that the professional integrity of the auditor is not compromised". Hence, we can define auditor independence as the auditor's ability to remain neutral and impartial in the whole auditing process from beginning to end.

Several factors may impair the auditor's independence. Among the factors influencing auditor independence that have been studied are: corporate governance of the auditing firm (Duc et al., 2019); competition and audit committee (Abu Bakar et al., 2005); audit firm size, audit firm tenure, non-audit service (as consulting and due diligence services), size of audit fee, and the audit firm-client company relationship (Abu Bakar et al., 2005; Duc et al., 2019); auditing standards and professional behavior (Albeksh, 2016). On the other hand, Nasution (2013) identified four factors enhancing auditor independence as the following: (1) Auditors' reputation of independence awareness; (2) Perceived pressure; (3) Professional commitment; and (4) Internal locus of control. Sarwoko & Agoes (2014) proved that auditor's independence has a significant influence on the implementation of audit procedures to detect fraud. However, Mahami, & Mouloudj (2020) found that detect manipulation is not significantly affected by the independence of auditors. Hence, we propose the following hypothesis:

H2: The independence of external auditors has a positive influence on the ability to detect manipulating the financial statements.

### **2.4. Extended Audit Tenure and Detection of Accounts Manipulation**

Auditor tenure refers to the length of the relationship between auditor and client. In Algeria, according to law No. 10-01 of June 29, 2010, relating to the accounting professions, Article 27 states that the duration of the audit engagement is limited to three (03) years, renewable once (Official journal, 2010, p.7). So, the maximum permissible length of the extended audit tenure in Algeria is six (06) years. Accordingly, like many countries, Algeria imposed limitations on the extended audit tenure. Myers et al. (2003) note that the short audit tenure is three years or less, while the long audit tenure is nine years or more. However, long-term audit tenure may harm or hampers the independence of the auditor. On the contrary, (Stanley & DeZoort, 2007, p.134) mentioned that with longer audit tenure, accumulated client-specific knowledge and experience increases the level of competence of the auditor.

In the early periods of a new auditor engagement, the lack of client-specific knowledge may lead to a lower probability of detecting a breach in the client's accounting system (Lee, 2015). Recently, Alsmairat et al., (2019) found that audit tenure has a positive and significant effect on audit quality. Likewise, Sarwoko & Agoes (2014) proved that audit procedures to detect fraud have a significant impact on audit quality. Also, Ismajli et al., (2019) found a significant negative relationship between errors, fraud, and financial reporting. As well, they found that the quality of

external audits has a positive effect on financial statement fraud detection. However, Al-Thuneibat et al., (2011) affirmed that audit tenure affects audit quality negatively. Similarly, Rickett et al., (2016) found that the length of auditor tenure influences negatively audit quality in certain countries. Also, Mukhlisin (2018) failed to prove that the length of auditor tenure can reduce the independence and professional skepticism of auditors in detecting fraudulent financial reporting. Recently, Anggreni & Latrini (2021) showed that audit tenure has a significant positive impact on the ability to detect creative accounting practices. Given the above arguments, the following hypothesis is proposed:

H3: Extended audit tenure has a positive influence on the ability to detect manipulating the financial statements.

### 2.5. Auditor Specialization and Detection of Accounts Manipulation

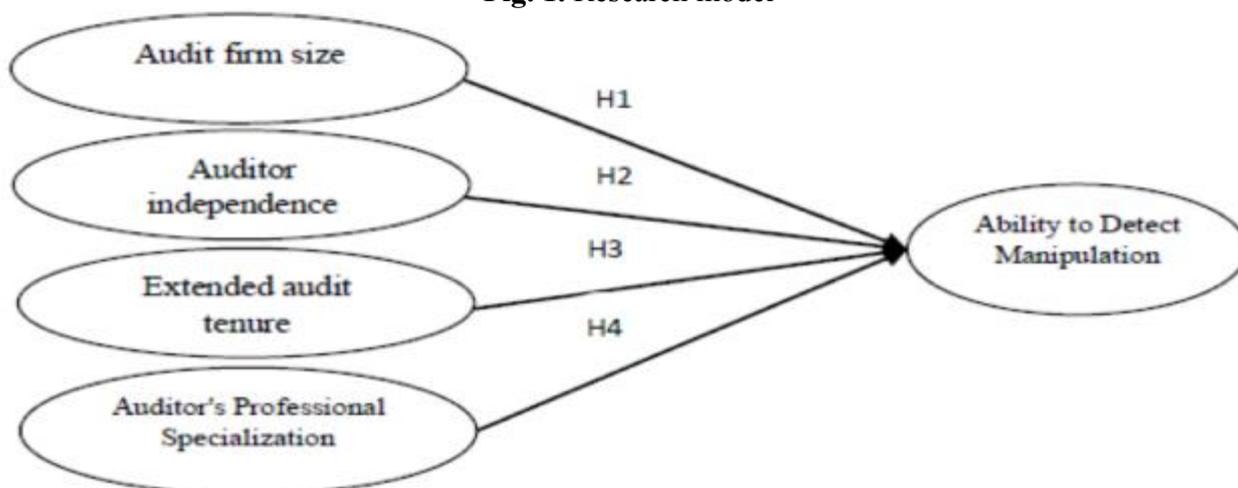
Auditor's professional specialization refers to an auditor possessing deep knowledge, extensive experience, and great skills in a particular industrial field. Solomon et al., (1999, p.191) defined auditor's specialty as "auditors who are so designated by their firms and whose training and practice experience largely are in a particular industry". Dunn & Mayhew (2004) stated that auditors professionals specialized in the industry gain more knowledge and experience in comparison with non-specialist auditors.

Auditor's industry specialization can lead to improved audit quality. Previous studies indicate that auditor's industry specialization provides higher quality audits than non-specialist auditors (e.g., Reichelt and Wang, 2010). Havasi and Darabi (2016) affirmed that an auditor's expertise in the industry (based on market share pattern based on the sum of the audited assets) has a significant effect on the quality of companies' financial reporting. Also, Balsam et al. (2010) found that auditor industry specialization has a significant influence on audit quality. Carcello & Nagy (2004) found evidence for a negative correlation between auditor industry specialization and financial statement fraud, and they reported that may be more difficult for an auditor to possess industry expertise for larger companies who are likely to be more complex and operate in multiple industries. Sarwoko & Agoes (2014) proved that auditor's industry specialization has a significant influence on the implementation of audit procedures to detect fraud. Mukhlisin (2018) confirmed that auditors specialize can detect fraudulent financial reporting. Hence, we hypothesize that:

H4: Auditor's Professional Specialization has a positive influence on the ability to detect manipulating the financial statements.

Our research model is based on four hypotheses and is shown in Figure 1.

Fig. 1. Research model



### 3. RESEARCH METHODOLOGY

#### 3.1. Data collection

The population in this research paper consists of auditors with practical experience in external auditing. We use convenience sampling. The research was conducted in two months, from October 5 to the end of November 2019. During this period, 160 questionnaires were distributed, and the confidentiality of respondents was guaranteed. 113 questionnaires were correctly filled out and returned. Therefore, the response rate was 70.62% and it can be considered acceptable.

Regarding the participants, the great majority consisted of males with a percentage of 80.53%, also the most of participants (67.26%) were older than 45 years and 53.98% of them has 12 years of work experience in the auditing profession. This is considered to be positive because an auditor who has a vast range of experience is supposed to have a better understanding and knowledge of the account manipulation issues (Aljinović Barać & Klepo, 2006). Detailed information statistics about the characteristic of participants are displayed in Table 1.

**Table 1.** Profile of respondents

Characteristic	Variables	Frequency	Percentage
Gender	Male	91	80.53
	Female	22	19.47
Age (Years)	Under 30	05	04.42
	31-45	32	28.32
	Above 45	76	67.26
Level of Experience (Years)	Under 6	19	16.82
	6-12	33	29.20
	Above 12	61	53.98

#### 3.2. Measurement Instrument

In this paper, the research methodology employed is the survey questionnaire. Pilot testing with five practicing auditors led to minor changes in the instrument. The first part of the questionnaire included demographic characteristics, while the second part asked respondents to indicate their responses using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). All questions were of closed type. We measured auditor independence with a three-item scale based on the scale adopted from Jaber and Abu Fadda (2016). We measured the auditor's professional specialization with three-item adopted from Elshawarby (2017). Audit firm size and extended audit tenure were measured by three items each. The ability to detect manipulating the financial statements was measured using a four items scale adapted from Mahami & Mouloudj (2020).

### 4. RESULTS AND DISCUSSION

#### 4.1. The descriptive statistics and alpha reliability

Mean and standard deviation are presented in Table 6 (Appendix). Table 2 shows the variables used in the scale, their number of items, and inter reliability of the scale.

**Table 2.** Results of reliability analysis

Construct	No. of	Alpha
Audit firm size (AFS)	3	,820
Independence of external auditor	3	,901
Extended audit tenure (EAT)	3	,876
Auditor's professional	3	,860
Ability to detect manipulation	4	,894

The reliability for the audit firm size construct was satisfactory with a value of 0.820. The Cronbach's alpha values for the independence of external auditors were 0.901. For extended audit tenure 0.876. For auditor's professional specialization 0.860 and for the ability to detect

manipulation 0.894. A value greater than 0.6 indicates satisfactory internal consistency reliability (Malhotra, 2010). These values indicate that the scales were reliable and all items should be included in the scale.

**4.2. Correlation between constructs**

Pearson correlation analysis establishes the linear correlation between two variables; it is one of the most commonly used of all statistical methods.

**Table 3.** Correlation between constructs

Construct	Mean	SD	1	2	3	4	5
AFS	3,7522	,77891	1				
IEA	3,8024	,81240	,707**	1			
EAT	3,8761	,73354	,765**	,794**	1		
APS	3,7581	,80948	,713**	,685**	,639**	1	
ADM	3,7876	,81024	,755**	,815**	,780**	,822**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

Correlation analyses of the variables in our study provide an early sign that there is a positive correlation between audit firm size, which is an independent variable, and ability to detect manipulation, which is a dependent variable ( $r=.775$ , at a value of  $p \leq .01^{**}$ ). Correlations for all other variables are shown in Table 3. A significant correlation between several independent variables such as independence of the external auditor and ability to detect manipulation ( $r= 0.815$ ), extended audit tenure and ability to detect manipulation ( $r = 0.780$ ), and auditor's professional specialization. Similarly, the ability to detect manipulation has a strong relationship with ( $r= 0.822$ ). Correlation is considered significant when the probability value is less than 0.05.

**Table 4.** Analysis of variance (ANOVA) results

Model	SS	df	MS	F	Sig. F
Regression	60,136	4	15,034	121,245	,000
Residual	13,392	108	,124		
Total	73,528	112			

We conducted a regression analysis of the dependent variable of detect manipulation in financial statements and four independent variables: Audit firm size, independence of the external auditor, extended audit tenure, and auditor's professional specialization. When we analyze Table 4, we observe that the F statistic is 121.245, which is highly significant at 0.000. Hence, because the p-value is less than 0.05, there can be a linear regression relationship between the dependent (represented by the ability to detect manipulation) and independent variables.

**Table 5.** Regression Analysis Results for Detection of Manipulation

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
	B	Std.	Beta		
(constant)	-,157	,188		-,838	,404
AFS	,083	,075	,079	1,104	,272
IEA	,302	,073	,303	4,124	,000
EAT	,229	,085	,207	2,702	,008
APS	,425	,063	,425	6,755	,000

Dependent Variable: Ability to Detect Manipulation (ADM); Independent variables: AFS, IEA, EAT, APS  
 Notes: Model summary: R = 90,4%; R Square = 81,8%; Adjusted R Square = 81,1%.

A multiple regression model is used to find the influence of four factors on the external auditor's ability to detect manipulation in financial statements. The relationship between the independence of the external auditor and the ability to detect manipulation is positive ( $\beta = .302$ ;  $t= 4,124$ ). Hence, H2 is supported. This suggests that the external auditor's ability to detect manipulation in financial statements increases as his/her independence increases. This result is

consistent with the results of previous studies such as Al Momani & Obeidat (2013) who found that auditor independence affects the ability to detect the practices of creative accounting.

The relationship between extended audit tenure and the ability to detect manipulation is positive ( $\beta = .229$ ;  $t = 2,702$ ). Hence, H3 is supported. This suggests that the external auditor's ability to detect manipulation in financial statements increases as auditor tenure increases. The relationship between auditor's professional specialization and ability to detect manipulation is positive ( $\beta = .425$ ;  $t = 6,755$ ). Hence, H4 is supported. This means that the external auditor's ability to detect manipulation in financial statements increases as his/her professional specialization increases. This supports the research conducted by Reichelt & Wang (2010) which states that auditor's professional specialization helps in the detection and reining of aggressive accounting practices. Also, consistent with the result of Owhoso et al. (2002) which found that specialized auditors are better able to detect errors in their area of industry specialization compared with detecting errors out of their specialization. And consistent with the result of Mukhlisin (2018) who stated that auditors with industry specialization have more ability to detect material misstatements of the financial statements resulting from fraudulent financial reporting.

In contrast, we observe from the regression analysis in Table 5 that audit firm size has a p-value of 0,272 and a corresponding t-value of 1,104 ( $\beta = .083$ ), signifying that this variable is not important in the model. Hence, H1 is rejected. This suggests that audit firm size does not improve the ability to detect manipulation.

We can conclude that the variables "independence of external auditor", "extended audit tenure" and "auditor's professional specialization" positively influence the ability to detect manipulation. These variables determine the ability to detect manipulation. Based on the SPSS output, the following multiple regression equation was formed:

$$\text{The ability to detect manipulation} = -0,157 + 0,302 (IEA) + 0,229 (LAT) + 0,425 (APS)$$

The values of the un-standardized Beta coefficient among the independent variables show that "auditor's professional specialization" (0.425) is the most important antecedent in affecting the ability to detect manipulation. Besides, table 5 shows a coefficient of determination ( $R^2$ ) of 0. 0818. And an adjusted  $R^2$  of 0.811, which explains the relationship between the dependent variable and dependent variables. The  $R^2$  of 0.818 indicates that 81.8% variation in ability to detect manipulation is explained by the independence of external auditor; extended audit tenure; and auditor's professional specialization. This shows that the result is a good fit with the model.

## **5. CONCLUSION**

In recent years, account manipulation has become a major problem for many parts and countries around the world. Therefore, the purpose of this paper was to determine the factors that influence external auditor's ability to detect manipulation in the financial statements in Algeria. The research sample consisted of 113 auditors. Since there are very few previous Algerian studies on the topic of accounting manipulations, we surveyed Arab and foreign studies on this topic to identify the explanatory factors. Thus, this is believed to be the first such paper that attempts to provide evidence from a developing country about four factors influencing capacity to detect manipulation, which may help prevent or reduce manipulative behaviors, and therefore, improvement of financial statements quality.

The results show that the auditor's independence affects the ability to detect manipulation in the financial statements, where the ability to detect manipulation increases with increased independence. Therefore, increase the independence of the auditor could be one effective way to minimize manipulation's risk, through increase the financial independence and adoption of corporate governance principles. Also, this paper affirmed that the extended audit tenure has a positive effect on the ability to detect manipulation. Therefore, the extended audit tenure (within a maximum of six years in Algeria) seems like that can improve the ability to detect manipulation, but on the condition

to protect the auditor's independence and ensuring their impartiality and leave them subject only to the laws, with avoid creating close personal relationships between auditors and directors. As expected, this paper found that an auditor's industry specialization affects the ability to detect manipulation. This may indicate that specialized auditors are more able and competent to detect manipulation in the financial statements than non-specialist. The practical implication here is to encourage specialization in a specific industry, such as auditing in a certain sector like an assurance sector, hotels, services, manufacturing, construction, or associations...etc., and this can be achieved through several ways, including specialized education in auditing (for example, creating a specialization in financial industry audit); programming specialized training courses for auditors; promoting authorship in the field of audit (for example, a book on the audit in the pharmaceutical industry). However, of all the explanatory factors examined, only one factor (audit firm size) was found to be an insignificant variable. This result can be logical because in Algeria there are not audit offices, which have skilled human resources.

In the latter, we can conclude that accounting manipulation practices in Algeria appear to differ from the manipulation that occurs in other countries, which may be partly attributable to the spread of financial corruption that Algeria witnessed over the past twenty years. On the other hand, further studies are needed to identify the effect of other factors. For example, researchers may wish to consider whether, professional ethics in auditing, previous experience in detecting fraud, and social responsibility of statutory auditors affect detection of manipulation.

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## 6. Appendices

**Table 6.** Descriptive Statistics for all Variables

No.	Items	Mean	SD
AFS1	Large audit firms are more independent than smaller offices.	3,8584	,87492
AFS2	Large audit firms are more able to detect manipulating than smaller offices.	3,7080	,89324
AFS3	Larger audit firms providing higher quality audits than smaller offices.	3,6903	,95506
IEA1	The auditor's independence of mind appears in his ability to express his work results, without responding to any external effects that may destroy his professional judgment.	3,8142	,95008
IEA 2	The independence of mind of a professional accountant enables him to work efficiently and effectively with integrity, to practice objectivity and skepticism.	3,7699	,87636
IEA 3	The professional auditor applies the Algerian conceptual framework of professional independence to improve his capacity to detect manipulative practices.	3,8230	,83698
LAT1	Long audit tenure can impair auditor independence.	3,9469	,74211
LAT2	Long audit tenure can improve the quality of financial reports.	3,8761	,80326
LAT3	Long audit tenure contributes to increasing the ability to detect manipulating the financial statement.	3,8053	,90493
APS1	Auditor's professional specialization contributes to the compliance of the auditors with the requirements of professional auditing rules.	3,7876	,90091
APS 2	Auditor's specialization encourages audit firms to apply the concept of quality within the audit offices, which has the greatest impact on the audit quality.	3,7434	,88417
APS 3	Auditor's specialization contributes to increasing the ability to detect manipulating the financial statement.	3,7434	,96157
ADMFS1	I can discover the most common accounting errors.	3,7876	,95853
ADMFS2	I am able to detect most cases of fraud in the financial statement.	3,7965	,91768
ADMFS3	I am able to detect every manipulation in revenues and expenses.	3,7876	,93016
ADMFS4	The ability to detect manipulation requires an external auditor to be competent in different fields of expertise such as information technology and investigative skills.	3,7788	,91353